Version 3 Release 1

IBM Db2 Change Accumulation Tool for z/OS
User's Guide

IBM
Version 3 Release 1

IBM Db2 Change Accumulation Tool for z/OS
User's Guide

IBM
Note:

Before using this information and the product it supports, read the "Notices" topic at the end of this information.
Contents

About this information ........................................ v

Chapter 1. Db2 Change Accumulation Tool overview ........................................ 1
What’s new in Db2 Change Accumulation Tool ........................................ 1
New and changed functions ........................................ 1
Db2 Change Accumulation Tool terminology ........................................ 4
Db2 Change Accumulation Tool features and benefits ........................................ 4
Data sharing support ........................................ 4
Mini logs ........................................ 4
Image copies ........................................ 5
Write to VSAM ........................................ 5
Index processing ........................................ 5
Generation of SHRLEVEL REFERENCE image copies ........................................ 6
Ability to issue DEFINE CLUSTER when underlying VSAM for table space does not exist ........................................ 7
RBA determination ........................................ 7
Support for processing of greater than 5000 objects ........................................ 7
Recover to a different table space (OBIDXLAT) ........................................ 7
Dynamic allocation of log tape devices ........................................ 8
Support for LOBs and XML objects ........................................ 9
Cumulative mini logs ........................................ 9
Propagate SSID, DBNAME, and TSNAME on XML objects to the control cards ........................................ 9
Translating object clusters with OBIDXLAT within or between subsystems and LPARs ........................................ 10
Support for Large Block Interface (LBI) format ........................................ 17
Support for sliding scale allocation ........................................ 17
Db2 Change Accumulation Tool components and architecture ........................................ 18
Service updates and support information ........................................ 19
Product documentation and updates ........................................ 19
Accessibility features ........................................ 20

Chapter 2. Preparing to customize Db2 Change Accumulation Tool ......................... 23
Set up your environment prior to customization ........................................ 24
Requirements and usage considerations ........................................ 26
Mainframe operating system and environment ........................................ 26
Setting up APF authorization of load libraries ........................................ 27
Coexistence considerations ........................................ 28
Usage considerations ........................................ 28
Considerations for recovering to a different table space ........................................ 28
Upgrading ........................................ 31
Worksheets: Gathering required data set names ........................................ 31
APF authorizing load libraries ........................................ 34
Worksheets: Gathering parameter values for Tools Customizer ........................................ 34

Chapter 3. Starting and preparing Tools Customizer for use ........................................ 51
Tools Customizer overview ........................................ 51
Starting and preparing Tools Customizer for use ........................................ 52
Best Practice: SMP/E and runtime libraries maintenance strategy for Tools Customizer ........................................ 52
Starting Tools Customizer ........................................ 56
Modifying Tools Customizer user settings ........................................ 57
Changing display options ........................................ 59
Sorting and filtering columns ........................................ 60

Chapter 4. Customizing Db2 Change Accumulation Tool ........................................ 63
Roadmap: Customizing Db2 Change Accumulation Tool for the first time ........................................ 63
Roadmap: Customizing a new version of Db2 Change Accumulation Tool from a previous customization ........................................ 64
Roadmap: Recustomizing Db2 Change Accumulation Tool ........................................ 65
Specifying the metadata library for the product to customize ........................................ 66
Discovering Db2 Change Accumulation Tool information automatically ........................................ 68
Creating and associating Db2 entries ........................................ 70
Defining parameters ........................................ 72
Defining Db2 Change Accumulation Tool parameters ........................................ 72
Defining Db2 parameters ........................................ 74
Generating customization jobs ........................................ 76
Submitting customization jobs ........................................ 77
Browsing parameters ........................................ 79
Copying Db2 entries ........................................ 80
Removing Db2 entries ........................................ 81
Deleting Db2 entries ........................................ 82
Displaying customization jobs ........................................ 82
Maintaining customization jobs ........................................ 83
Using Tools Customizer in a multiple-LPAR environment ........................................ 83

Chapter 5. Getting started with Db2 Change Accumulation Tool ........................................ 85
Starting Db2 Change Accumulation Tool ........................................ 85
Inactive options ........................................ 86
Specifying user settings ........................................ 86
Specifying ZPARM bootstrap data sets and load libraries ........................................ 88
Specifying Db2 Change Accumulation Tool parameters ........................................ 88
Specifying Db2 shared profile support ........................................ 91

Chapter 6. Working with object profiles ........................................ 95
Creating an object profile ........................................ 95
Adding table spaces to an object profile ........................................ 97
Adding indexes to an object profile ........................................ 108
Object profiles - fields and columns ........................................ 111
Updating an object profile ........................................ 114
Viewing an object profile ........................................ 116
Deleting an object profile ........................................ 116
Index
IBM® DB2® Change Accumulation Tool for z/OS® (also referred to as Db2 Change Accumulation Tool) is a query analysis tool that you can use to fine-tune complicated queries so that they run as efficiently as possible.

These topics provide instructions for installing, configuring, and using Db2 Change Accumulation Tool and are designed to help database administrators, system programmers, application programmers, and system operators perform these tasks:

- Plan for the installation of Db2 Change Accumulation Tool
- Install and operate Db2 Change Accumulation Tool
- Customize your Db2 Change Accumulation Tool environment
- Diagnose and recover from Db2 Change Accumulation Tool problems
- Design and write applications for Db2 Change Accumulation Tool
- Use Db2 Change Accumulation Tool with other Db2 or IMS™ products

**Tip:** To find the most current version of this information, always use [IBM Knowledge Center](https://www.ibm.com/support/knowledgecenter), which is updated more frequently than PDF books.
Chapter 1. Db2 Change Accumulation Tool overview

IBM Db2 Change Accumulation Tool for z/OS (also referred to as Db2 Change Accumulation Tool) provides fast recovery of database objects and current data for recovery processes. Db2 Change Accumulation Tool is a powerful tool for backing up database objects in a precise and non-disruptive manner and offers a range of powerful features.

Db2 Change Accumulation Tool:
• Makes precise point-in-time recovery of database objects.
• Allows recovery routines to focus on single objects and previous states.
• Produces SHRLEVEL REFERENCE image copies without the associated overhead and data locking.
• Controls the scope and specificity of image copy creation precisely via control cards.
• Maintains data integrity without recovery to relative byte address.
• Reduces recovery session times significantly in many cases.
• Incurs low overhead and minimizes down times for high-volume, complex databases with large numbers of tables and dependencies.

Topics:
• “What’s new in Db2 Change Accumulation Tool”
• “Db2 Change Accumulation Tool terminology” on page 4
• “Db2 Change Accumulation Tool features and benefits” on page 4
• “Db2 Change Accumulation Tool components and architecture” on page 18
• “Service updates and support information” on page 19
• “Product documentation and updates” on page 19
• “Accessibility features” on page 20

What’s new in Db2 Change Accumulation Tool

This section describes recent technical changes to Db2 Change Accumulation Tool.

New and changed information is marked like this paragraph, with a vertical bar to the left of a change. Editorial changes that have no technical significance are not marked.

Older changes and enhancements are described in “What’s new in previous editions” on page 471.

New and changed functions

This topic summarizes the recent enhancements and changes in Db2 Change Accumulation Tool.
## General documentation updates - November 13, 2019

<table>
<thead>
<tr>
<th>Description</th>
<th>Related APARs / PTFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparent encryption is now supported for REUSE NO data sets reallocation. It is not supported for Rebuild Index. Rebuild Index functionality switches to the system sort program if Db2 Sort is specified; there is no need to grant authority to set the APF-authorized attribute on z/OS UNIX files.</td>
<td>PH17851</td>
</tr>
<tr>
<td>A new card, DB2_SORT, has been added. For more information, see “Db2 Change Accumulation Tool syntax definitions” on page 190</td>
<td>PH17207</td>
</tr>
<tr>
<td>The description of the USE_ABOVE_THE_BAR control card has been updated. See “Db2 Change Accumulation Tool syntax definitions” on page 190</td>
<td>PH15603</td>
</tr>
<tr>
<td>The description for TO_IC_INLINE has been updated. See “Db2 Change Accumulation Tool syntax definitions” on page 190 for more information</td>
<td>PH14577</td>
</tr>
<tr>
<td>Maintenance considerations have been noted for APAR PH10864, a noncumulative APAR. For more information, see “Maintenance considerations” in Mainframe operating system and environment.</td>
<td>PH10864</td>
</tr>
</tbody>
</table>
### New and updated messages

<table>
<thead>
<tr>
<th>Description</th>
<th>Related APARs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• “GGC3839E” on page 292 through “GGC38411” on page 292</td>
<td>PH17851</td>
</tr>
<tr>
<td>• GGC1190E</td>
<td></td>
</tr>
<tr>
<td>• GGC1513E</td>
<td></td>
</tr>
<tr>
<td>• GGC2805E</td>
<td></td>
</tr>
<tr>
<td>• GGC1420E</td>
<td></td>
</tr>
<tr>
<td>• GGC2808E</td>
<td></td>
</tr>
<tr>
<td>• GGC3616E</td>
<td></td>
</tr>
<tr>
<td>• GGC3850E</td>
<td></td>
</tr>
<tr>
<td>• GGC1522E</td>
<td></td>
</tr>
<tr>
<td>• GGC1501E</td>
<td></td>
</tr>
<tr>
<td>• GGC1502E</td>
<td></td>
</tr>
<tr>
<td>• GGC1503I</td>
<td></td>
</tr>
<tr>
<td>• GGC1504E</td>
<td></td>
</tr>
<tr>
<td>• GGC1510I</td>
<td></td>
</tr>
<tr>
<td>• GGC1512E</td>
<td></td>
</tr>
<tr>
<td>• GGC1514E</td>
<td></td>
</tr>
<tr>
<td>• GGC1515I</td>
<td></td>
</tr>
<tr>
<td>• GGC1516I</td>
<td></td>
</tr>
<tr>
<td>• GGC1518I</td>
<td></td>
</tr>
<tr>
<td>• GGC1519W</td>
<td></td>
</tr>
<tr>
<td>• GGC1520I</td>
<td></td>
</tr>
<tr>
<td>• GGC1900I</td>
<td></td>
</tr>
<tr>
<td>• GGC1901I</td>
<td></td>
</tr>
<tr>
<td>• GGC2801E</td>
<td></td>
</tr>
<tr>
<td>• GGC2802E</td>
<td></td>
</tr>
<tr>
<td>• GGC2803E</td>
<td></td>
</tr>
<tr>
<td>• GGC2816I</td>
<td></td>
</tr>
<tr>
<td>• GGC2817E</td>
<td></td>
</tr>
<tr>
<td>• GGC2818I</td>
<td></td>
</tr>
<tr>
<td>• GGC1190E</td>
<td>PH17207</td>
</tr>
<tr>
<td>• GGC1420E</td>
<td></td>
</tr>
<tr>
<td>• GGC2096E</td>
<td></td>
</tr>
<tr>
<td>• GGC2805E</td>
<td></td>
</tr>
<tr>
<td>• GGC1513E</td>
<td>PH15603</td>
</tr>
<tr>
<td>• GGC2803E</td>
<td></td>
</tr>
<tr>
<td>• GGC3764E</td>
<td>PH14577</td>
</tr>
</tbody>
</table>

### Previous updates

Older changes and enhancements are described in “What’s new in previous editions” on page 471.
Db2 Change Accumulation Tool terminology

Db2 Change Accumulation Tool includes several unique terms that you should understand before you begin to use Db2 Change Accumulation Tool.

Job profile
Job profiles specify job options, object profiles, and utility profiles so you can customize, save, and generate Db2 Change Accumulation Tool jobs for your site.

Mini log
Mini logs are data sets that contain Db2 log information for a specific table space (or set of table spaces).

Mini log control table
The mini log control table is a repository of information about the mini logs that Db2 Change Accumulation Tool has created.

Object profile
Object profiles are reusable sets of objects. Object profiles allow you to group related objects (such as all objects for a particular application) and streamline the process of running Db2 Change Accumulation Tool utilities for sets of objects.

Utility profile
Utility profiles control the syntax that is produced when you build a Db2 Change Accumulation Tool job.

Db2 Change Accumulation Tool features and benefits

Db2 Change Accumulation Tool offers several unique features that you can use to recover database objects.

Data sharing support
Db2 Change Accumulation Tool can be implemented in a data sharing environment that consists of one or more Db2 subsystems working together with a common Db2 catalog structure. To forward recover a table space, Db2 Change Accumulation Tool determines if the current environment is a data sharing environment, identifies all the members of the data sharing group, and processes all bootstrap data sets, related archive log files, and active log files.

Mini logs
Mini logs are data sets that contain Db2 log information for a specific table space or sets of table spaces.

Mini logs speed and facilitate recoveries by extracting portions of the Db2 log that pertain to the object being processed. If mini logs are present, they are used instead of the Db2 log. Mini logs shift the I/O time spent in reading vast portions of the log (even when SYSLGRNX is factored in) to non-critical times.

Metadata for each mini log is recorded in a mini log control table created during the installation of Db2 Change Accumulation Tool. When an image copy of a table space is taken, Db2 Change Accumulation Tool checks the mini log control table for any mini logs that were created within the necessary range of relative byte addresses (RBAs). If mini logs are found, Db2 Change Accumulation Tool obtains log information directly from the concentrated mini log files for the RBA ranges instead of reading the entire Db2 log.
Related tasks:
“Setting up a mini log mode utility profile” on page 152
Follow these steps to set up a mini log mode utility profile.

Image copies
You can use Db2 Change Accumulation Tool to create image copies of a given database or table space (or a set of table spaces).

Db2 Change Accumulation Tool reads the most recent image copy, adds any incremental image copies, mini logs, and Db2 log data. This process uses offline resources so the actual database or table space is unaffected and can be allocated to online or batch applications at the time of the image copy.

Related tasks:
“Setting up an image copy mode utility profile” on page 156
Follow these steps to set up an image copy mode utility profile that can be used to create image copies of a database, table space, or a set of table spaces.

Write to VSAM
Db2 Change Accumulation Tool allows you to write changes to image copies, VSAM files, or both.

The following Db2 Change Accumulation Tool control cards support this functionality:

WRITE_TO_COPIES
Write changes to image copies.

WRITE_TO_VSAM
Write changes to the underlying VSAM file. When writing to an underlying VSAM file, Db2 Change Accumulation Tool uses the most recent image copy, any incremental image copies, mini logs, and Db2 log information and writes directly to the underlying VSAM file for the table space of interest.

WRITE_TO_BOTH
Write changes to both the underlying VSAM file and to image copies.

Related tasks:
“Setting up a WRITE_TO_VSAM utility profile” on page 160
Follow these steps to set up a WRITE_TO_VSAM utility profile, which enables you to write changes to an underlying VSAM file and use Db2 Change Accumulation Tool in recovery mode.

Index processing
Db2 Change Accumulation Tool allows you to perform several index processing functions.

You can:
• Perform a change accumulation of an index image copy to another index image copy.
• Create an index mini log at the SPACE or GROUP level.
• Recover an index from an index image copy.
• Perform an index image copy to VSAM LDS (WRITE_TO_VSAM).
• Rebuild indexes when Db2 Change Accumulation Tool re-writes a table space in a recover operation (WRITE_TO_VSAM or WRITE_TO_BOTH).

• Create an image copy for rebuilt indexes when WRITE_TO_BOTH is specified (indexes should be created with COPY YES). Db2 Change Accumulation Tool does not support the rebuilding of extended XML or spatial indexes.

If a REORG is performed on a table space that rebuilds the indexes, and the table space is image copied, then the status of all indexes and tables spaces is RW. The following states are restrictive to indexes:

- CHKP check pending
- ICOPY informational copy pending
- RBDP rebuild pending
- RBDP* rebuild pending star
- PSRBD page set rebuild pending
- RECP recover pending
- AREO* advisory REORG pending

Recovery of an index from any of these states that leads to REBUILD or REORG and ICOPY requires a DSNUTILB full image copy.

**Using REBUILD_INDEXES versus adding a SPACE set for DB.IX**

When writing directly to an index VSAM data set:

- If you use REBUILD_INDEXES, then Db2 Change Accumulation Tool performs a parallel index rebuild on the DB.TS data. You can then use index processing with either COPY YES or COPY NO.
- If you use a SPACE set with DB.IX, Db2 Change Accumulation Tool performs log apply processing for the index image copy or mini log, or writes to VSAM. You can only use index processing when the index is created with COPY YES.

**Index processing requirements**

To be processed in a general way, the index should be set to COPY YES. Also, the corresponding table space should be set to LOGGED.

**Note:** This restriction does not apply to REBUILD_INDEXES. REBUILD_INDEXES (when Db2 Change Accumulation Tool re-writes a table space in a recover operation, WRITE TO VSAM, or WRITE_TO_BOTH) is supported on a WRITE_TO_VSAM job when the index is created with COPY YES or COPY NO. REBUILD_INDEXES uses the data page data to create index keys and has no need for log data.

**Generation of SHRLEVEL REFERENCE image copies**

Db2 Change Accumulation Tool generates SHRLEVEL REFERENCE image copies when there is no previous SHRLEVEL REFERENCE image copy. Db2 Change Accumulation Tool reads the BSDS files, retrieves the log record ranges for the checkpoint records, and adds them to the read ranges derived from SYSLOGRANGE.

In a data sharing environment, Db2 Change Accumulation Tool reads all BSDS files from all members. This ensures the checkpoint records come into the log reader engine and, when found, are used to upgrade SHRLEVEL CHANGE image copies
if the checkpoint record shows that either no units of work exist or the units of work that exist have been successfully committed.

**Ability to issue DEFINE CLUSTER when underlying VSAM for table space does not exist**

Db2 Change Accumulation Tool allows you to issue a VSAM DEFINE automatically if an underlying table space data set is not found in MVS™. This enables Db2 Change Accumulation Tool processing to proceed with a WRITE_TO_VSAM operation.

This functionality supports both STOGROUP and VCAT defined spaces. For STOGROUP defined table spaces, Db2 Change Accumulation Tool obtains the allocation values, VOLSER, and secondary space information from the Db2 catalog. For VCAT defined spaces, Db2 Change Accumulation Tool obtains the allocation values from the Db2 catalog.

**Note:** SMS managed data sets are required for VCAT defined table spaces.

**RBA determination**

The relative byte address (RBA) that Db2 Change Accumulation Tool selects to load to SYSCOPY is kept as close as possible to the specified END_RBA (not END_LRSN). If the RBA is not a valid RBA, the end point is advanced to the next valid RBA.

**Support for processing of greater than 5000 objects**

Db2 Change Accumulation Tool provides the ability to exceed the 5000 object limit for image copy and mini log processing.

You can specify output image copy data sets using the control cards IC_LP, IC_LB, IC_RP, IC_RB, IC_CATALOG, IC_DEVICE, IC_SPACE, IC_STOR_CLASS, IC_MGMT_CLASS, IC_DATA_CLASS, IC_EXP_DATE, IC_RETPD.

**Note:**

1. Building jobs that include 20,000 objects requires significant resources. If you are building in batch, use a region size of 0M, which is unlimited. If you are building online using the ISPF interface, log into TSO with a region size of at least 80000.

2. The control cards provided with this feature apply to image copy processing. No new control cards are required for the processing of mini logs with greater than 5000 objects.

**Recover to a different table space (OBIDXLAT)**

This feature allows you to keep table images in sync using the WRITE_TO_VSAM to recover the tables in an image copy to a different VSAM and table space than the one that is specified in the generated logs.

If you are using the OBIDXLAT feature and connection to the target SSID is not possible in the current TSO context and the OBIDs need to be filled-in manually, you can use Db2 Change Accumulation Tool to generate a job that, when run on the other LPAR or machine produces a report of all of the OBIDs from a list of DB.TS combinations.
The recovery to a different table space is accomplished by a translation facility that incorporates OBID translation into Db2 Change Accumulation Tool. This inputs DSN1COPY and OBIDXLAT control cards for each SPACE() group. If present, the DSN1COPY and OBIDXLAT control cards are used to translate the object (DBID/PSID/OBID).

**Note:** The target table space can be either in the same Db2 subsystem or a different Db2 subsystem.

**Related concepts:**
- “Considerations for recovering to a different table space” on page 28

Db2 Change Accumulation Tool supports the following recovery scenarios when recovering to a different table space.

**Related tasks:**
- “Recovering to a different table space” on page 126

The OBIDXLAT feature uses WRITE_TO_VSAM to recover the tables within an image copy to a different VSAM/table space than the one indicated in the generated logs. This provides an easy way of keeping in sync table images.

**Facilitation of the identification of target OBID information**

Db2 Change Accumulation Tool facilitates the identification of target OBID information when recovering to a different table space via OBIDXLAT.

This feature:

- Automatically populates the target OBID on the GGC$OXL panel when it is possible to connect to the target SSID.
- Automatically populates the target DBID, PSID, and OBID when values are specified for target SSID/DB/TS. Target DBID, PSID, and OBID values are not auto-populated when the source table name is different from the target table name. In such a scenario, the target DBID, PSID, and OBID values must be entered manually on the GGC$OXL panel. You can generate a report using the utility profile option **OBID Report Job Generation** to get the target DBID, PSID, and OBID values from the report.
- When it is not possible to connect to the target SSID, Db2 Change Accumulation Tool generates JCL that you can run on the target SSID to generate a report that identifies the OBID and other related information.

This feature automates the OBID determination process and allows Db2 Change Accumulation Tool to connect to the other Db2 subsystems if necessary. Db2 Change Accumulation Tool reads the table names of the target table space, matches them to the source table names, fetches the corresponding OBIDs, and fills them in automatically.

**Related tasks:**
- “Recovering to a different table space” on page 126

The OBIDXLAT feature uses WRITE_TO_VSAM to recover the tables within an image copy to a different VSAM/table space than the one indicated in the generated logs. This provides an easy way of keeping in sync table images.

**Dynamic allocation of log tape devices**

The dynamic allocation request procedure Db2 Change Accumulation Tool uses includes the **Wait for UNIT** flag.

This flag indicates to the operating system that a Db2 Change Accumulation Tool job will wait for an allocation unit to become available. The Db2 Change
Accumulation Tool job waits for system-defined period of time after which a message is sent to the operator console asking if the task should continue to wait, be canceled, or use a tape device.

**Support for LOBs and XML objects**
Db2 Change Accumulation Tool supports the ability to run change accumulation jobs against large objects (LOBs) and XML objects. You can now include LOBs and XML objects in your Db2 Change Accumulation Tool object profiles.

**Cumulative mini logs**
Mini logs can be defined at the group level or the space level.

**Group level mini logs**
For group level mini logs, the MINI_LOG_DSN_1 and MINI_LOG_DSN_2 control cards that specify the primary and secondary mini log data set names are placed at the GROUP(...) level in the Db2 Change Accumulation Tool syntax. New log records are written to the end of the file and are sorted at log apply time when the mini log data set is used for input. Instead of writing a new row to the mini log control table, the end point is extended.

**Space level mini logs**
For space level mini logs, the MINI_LOG_DSN_1 and MINI_LOG_DSN_2 control cards that specify the primary and secondary mini log data set names are placed at the SPACE(...) level in the Db2 Change Accumulation Tool syntax. After records are added to space level mini logs, the mini log is re-sorted and the RBA in the mini log control file is updated to reflect the new range. Db2 Change Accumulation Tool then eliminates orphaned mini logs and their control file rows.

When an image copy is created, group-level mini logs are unloaded into the sort program with any additional log records that are read from the DB2 log. Because space-level mini log data are already sorted, they are not re-sorted during this process. Instead, all space-level mini logs are opened immediately. The data are merged with the group-level mini log records and any additional DB2 log records.

**Related tasks:**
- “Setting up a mini log mode utility profile” on page 152

Follow these steps to set up a mini log mode utility profile.

**Propagate SSID, DBNAME, and TSNAME on XML objects to the control cards**
This feature allows Db2 Change Accumulation Tool to propagate the target SSID, DBNAME, and TSNAME that are entered on the Update Object OBIDXLAT Display panel (GGC$OXLT) for XML objects to the control card group, OBIDXLAT(…).

When Db2 Change Accumulation Tool can connect to the target SSID, it updates the sequence number used for DB2_GENERATED_DOCID_FOR_XML.

When Db2 Change Accumulation Tool is unable to connect to the target SSID, you can use Option 5 (Create XML Object Sequence Number Update Job Template) on the Db2 Change Accumulation Tool main menu to generate a template job. When an OBIDXLAT job is run for XML, that job refers to the template job and then generates JCL that must be run to update the sequence number used for DB2_GENERATED_DOCID_FOR_XML.
This feature ensures the target sequence number is greater than or equal to the source number of rows. This is necessary when translating XML objects from one table space to another.

**How Db2 Change Accumulation Tool assigns member names to generated jobs**

This example illustrates how Db2 Change Accumulation Tool assigns a member name to a generated job. For the following control card specifications:

```
XLAT_TARGET_SSID 'D91A'
XML_JOBS_DSN 'RSQA.GGC310.DB2V11.TESTCASE.SMPREG3'
XML_JOBS_MEMBER_PFX 'A166'
XML_TEMPLATE_DSN 'RSQA.GGC310.DB2V11.TESTCASE.SMPREG3'
XML_TEMPLATE_MEMBER 'TEMPLATE'
```

A member A166D91A is generated in data set RSQA.GGC310.DB2V11.TESTCASE.SMPREG3'

If the job name in the TEMPLATE data set is TEMPLATE, then in member A166D91A, the job name would be TEMPD91A.

So for a seq# update job:

- The member name in the JCL is the prefix on control card 'XML_JOBS_MEMBER_PFX' following the 4-character SSID.
- The job name on the JCL is first 4 characters from the template job name followed by 4-character SSID.

If you use a job name in the template that is equal to XMLJxxxx, the last four characters are replaced by the SSID.

**Data sharing considerations**

When using OBIDXLAT for XML in a data sharing environment, if Db2 Change Accumulation Tool is unable to connect to the target SSID, it will generate a job for each member of the data sharing group. You must run each of these jobs on the appropriate LPAR for updating the sequence number on the target used for DB2_GENERATED_DOCID_FOR_XML.

**Translating object clusters with OBIDXLAT within or between subsystems and LPARs**

This topic explains how Db2 Change Accumulation Tool can translate a source object cluster with any object type data to an identically defined target object cluster, within one Db2 subsystem or between different subsystems on the same or different LPARs.

You can translate an object cluster that includes any of these:

- XML auxiliary table spaces within one SSID
- XML auxiliary table spaces between different Db2 subsystems on the same LPAR
- XML auxiliary table spaces between different Db2 subsystems on different LPARs

In implementing this type of translation, two new members have been added: GGC#XMLU and GGC#XMLI. A new keyword was also added: XML_IDS_DSN.
The following user stories illustrate how to translate object clusters.

**User Story 1: OBIDXLAT source and target SSIDs are different but reside on the same LPAR**

If the target and source SSIDs differ but are located on the same LPAR, Db2 Change Accumulation Tool functions the same as in previous versions of the product. This code sample shows the SYSIN parameters:

```plaintext
CHANGE_ACCUM(
  GROUP(
    SPACE(
      DATA_BASE DBGGC01A
      SPACE_NAME TSGGC01A
      OBIDXLAT(
        XLAT_DSN 'DC1Q.DSNDBC. DBGGC01A.TSGGC01A.I0001.A001'
        DBID '465,830'
        PSID '000008,000008'
        OBID '000007,000007'
      )
    )
  )
)
SPACE(
  DATA_BASE DBGGC01A
  SPACE_NAME IXGGC01A
  OBIDXLAT(
    XLAT_DSN 'DC1Q.DSNDBC. DBGGC01A. IXGGC01A.I0001.A001'
    DBID '465,830'
    PSID '000006,000006'
    OBID '000005,000005'
  )
)
SPACE(
  DATA_BASE GGCDBXLA
  SPACE_NAME XPRI0000
  OBIDXLAT(
    XLAT_TARGET_SSID 'DC1Q'
    XLAT_TARGET_DBNAME 'GGCDBXLA'
    XLAT_TARGET_TSNALME 'XPRI0000'
    XLAT_DSN 'DC1Q.DSNDBC.GGCDBXLA. XPRI0000.I0001.A001'
    DBID '465,830'
    PSID '000004,000004'
    OBID '000003,000003'
  )
)
TO_CURRENT
)
LOG_COPY_PREFERENCE R1R2A1A2
WRITE_TO_VSAM
XML_JOBS_DSN 'RSQB.GGC310.TESTCASE.TEMPLATE'
XML_JOBS_MEMBER_PFX 'XML'
XML_TEMPLATE_DSN 'RSQB.GGC310.TESTCASE.TEMPLATE'
XML_TEMPLATE_MEMBER 'TEMPLATE'
XML_IDS_DSN 'TS9876.TMP.GGC310.DX1B.GGC007A.IMPORT'
USER_INDICATOR GGC
)
```

**User story 2: OBIDXLAT target and source SSIDs differ and reside on different LPARs**

If the target and source SSIDs are different and are located on different LPARs, follow these steps:
1. Create and run a job with the GGC#XMLU program on the source Db2 subsystem. This program calls the UNLOAD utility with the DSNUTILU procedure to unload the SYSIBM.SYXMLSTRINGS table to the DSN specified in SYSIN.

2. Create and run a job with the GGC#OBRP program on the target Db2 subsystem. If XML table spaces are specified for this run, two additional lines must be specified in GGC#OBRP SYSIN:

   **DSNIN=**
   Specifies the DSN of the unloaded data from the source Db2 SSID.

   **DSNOUT=**
   Specifies the DSN of the XML tag IDs translation table from the target Db2 SSID.

3. Create a GGC#MAIN job with an additional translation table, CC XML_IDS_DSN, for DSN with XML tag IDs.

   You can do this when the target and source LPARs are the same. If XML objects are not specified for this run, Db2 Change Accumulation Tool will not use XML_IDS_DSN if it can connect to the target subsystem by itself.

   The following code sample shows the SYSIN parameters for such a run:

   ```
   CHANGE_ACCUM (
       GROUP (
       SPACE (  
           DATA_BASE DBGGC01A  
           SPACE_NAME TSGGC01A  
           OBIDXLAT (  
               XLAT_DSN 'DCZ1.DSNDBC. DBGGC01A.TSGGC01A.I0001.A001'  
               DBID '465,322'  
               PSID '000008,000008'  
               OBID '000007,000007'  
           )  
       )  
     )  
   )  
   SPACE (  
       DATA_BASE DBGGC01A  
       SPACE_NAME IXGGC01A  
       OBIDXLAT (  
           XLAT_DSN 'DCZ1.DSNDBC. DBGGC01A.IXGGC01A.I0001.A001'  
           DBID '465,322'  
           PSID '000006,000006'  
           OBID '000005,000005'  
       )  
   )  
   SPACE (  
       DATA_BASE GGCDBXLA  
       SPACE_NAME XPRI0000  
       OBIDXLAT (  
           XLAT_TARGET_SSID 'DX1B'  
           XLAT_TARGET_DBNAME 'GGCDBXLA'  
           XLAT_TARGET_TSNAME 'XPRI0000'  
           XLAT_DSN 'DCZ1.DSNDBC.GGCDBXLA. XPRI0000.I0001.A001'  
           DBID '465,322'  
           PSID '000004,000004'  
           OBID '000003,000003'  
       )  
   )  
   TO_CURRENT  
   )  
   LOG_COPY_PREFERENCE R1R2A1A2  
   WRITE_TO_VSAM  
   XML_JOBS_DSN 'RSQB.GGC310.TESTCASE.TEMPLATE'  
   XML_JOBS_MEMBER_PFX 'XML1'
   ```
User story 3: OBIDXLAT target and source SSIDs differ and reside on different LPARs

This section explains how to translate object clusters if you have a table with data in one Db2 subsystem that you want to move to another identically defined object in another Db2 subsystem, which can be on a different LPAR.

The DDL for a typical XML setup is as follows:

```sql
CREATE DATABASE DBGGC01A;
COMMIT;
CREATE TABLESPACE TSGGC01A IN DBGGC01A
USING STOGROUP SYSDEFLT
PRIQTY 48
SEQQTY 12
CCSID ASCII
BUFFERPOOL BP8K0
LOCKSIZE ANY;
COMMIT;
CREATE TABLE ORG_SOURCE
  ( COL_XML XML )
  IN DBGGC01A.TSGGC01A;
COMMIT;
```

Using this DDL, Db2 creates the base table ORG_SOURCE in the TSGGC01A table space; the auxiliary table space XPRI0000 for XML column; and the index space IXG01A for the index on the auxiliary XML table space. For proper translation, all of the spaces must be specified via spaces.

If the source and target SSIDs are located on the same LPAR, Db2 Change Accumulation Tool can be run using the following CCs. In this example, the source subsystem is DX1B and the target is DC1Q, on the same LPAR:

```sql
CHANGE_ACCUM ( GROUP ( SPACE ( DATA_BASE DBGGC01A SPACE_NAME TSGGC01A OBIDXLAT ( XLAT_DSN 'DC1Q.DSNDBC. DBGGC01A.TSGGC01A.I0001.A001' DBID '465,830' PSID '000008,000008' OBID '000007,000007' ) ) )
SPACE ( DATA_BASE DBGGC01A SPACE_NAME IXG01A OBIDXLAT ( XLAT_DSN 'DC1Q.DSNDBC. IXG01A.I0001.A001' DBID '465,830' PSID '000006,000006' OBID '000005,000005' ) )
) SPACE ( DATA_BASE GGCDBXLA SPACE_NAME XPRI0000
```
OBIDXLAT (
  XLAT_TARGET_SSID 'DC1Q'
  XLAT_TARGET_DBNAME 'GGCDBXLA'
  XLAT_TARGET_TSNAPM 'XPRIO0000'
  XLAT_DSN 'DC1Q.DSNDBC.GGCDBXLA. XPRIO000.10001.A001'
  DBID '465,830'
  PSID '000004,000004'
  OBID '000003,000003'
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
)
}

If the SSIDs are located on different LPARs, follow these steps:
1. Include the DDL as above, separated into source objects on SSID #1 on source
   LPAR #1 and target objects on SSID #2 on target LPAR #2.
2. Create and run a job with the GGC#XMLU program on the source Db2
   subsystem. This program calls the UNLOAD utility by means of the
   DSNUTILU procedure to unload the SYSIBM.SYSXMLSTRINGS table to the DSN
   specified in SYSIN.
3. Create and run a job with the GGC#OBRP program on the target Db2
   subsystem. If XML table spaces are specified for this run, two additional lines
   must be specified in the GGC#OBRP SYSIN:
   DSNIN=with DSN of unloaded data from source Db2 subsystem.
   DSNOUT=with DSN for the XML tag IDs translation table from the target Db2
   subsystem.
4. Create a GGC#MAIN job with an additional translation table, CC XML_IDS_DSN,
   for DSN with XML tag IDs.

In all the following examples, the source SSID is DX1B on LPAR RS92, and the target
is DCZ1 on RS97.

The SSID name and user indicator must be specified in PARM. There must be only
one line in SYSIN, the name of the dataset where GGC#XMLU will post the
upload. It will be automatically allocated, or if it already exists, it will be reused.
DB2PARMS is the required DD with Db2 settings generated during the Tools
Customizer installation.

This example JCL runs the GGC#XMLU program on source LPAR RS92:
/*GGC#XMLU EXEC PGM=GGC#XMLU
 /*   PARM=(DX1B,GGC)
 /*DB2PARMS DD DSN=RSQB.GGC0310.D82CNTL,DISP=SHR
 /*SYSSUT DD SYSOUT=*
 /*SYSIN DD *
 TS9876.TMP.GGC310.DX1B.GGC0007A.EXPORT
 */

The following is an example of a successful execution of GGC#XMLU:
For the GGC#OBRP program, the SSID name and user indicator should be specified in PARM. SYSOUT and SYSPRINT DDs should be specified for output from this job. DB2PARMS is a required dataset with Db2 settings, generated during Tools Customizer installation. SYSIN – DD with input parameters: DSNIN= - DSN of unloaded data from source Db2; DSNOUT= - DSN for XML tag IDs translation table from target Db2; and all spaces for future run.

The following is an example JCL that runs the GGC#OBRP program on target LPAR RS97:

```jcl
//GGC#OBRP EXEC PGM=GGC#OBRP
// PARM=(DCZ1,GGC)
//*
//DB2PARMS DD DSN=RSQB.GGC0310.DB2CNTL,DISP=SHR
//SYSPRINT DD SYSOUT=* /SYSOUT DD SYSOUT=* //*
//SYSIN DD *
DSNIN=TS9876.TMP.GGC310.DX1B.GGC0007A.EXPORT
DSNOUT=TS9876.TMP.GGC310.DCX1.GGC0007A.IMPORT
DBGGC01A.TSGGC01A
DBGGC01A.IXGGC01A
DBGGC01A.XPRI0000
/*
```

The following example shows a successful GGC#OBRP run:

```sql
SYSPRINT:
5697-P45 IBM DB2 CHANGE ACCUMULATION TOOL V03.10 RUN DATE 2019/04/12 RUN TIME 05:15:10
SSID: DCZ1 DB: DBGGC01A PS: TSGGC01A DBID: 322 PSID: 8
CREATOR INDEX/TABLE NAME OBID
------------------------------------ ------------------------------------ ----
TS9876 ORG_SOURCE 7

SSID: DCZ1 DB: DBGGC01A PS: IXGGC01A DBID: 322 PSID: 4
CREATOR INDEX/TABLE_NAME OBID
------------------------------------ ------------------------------------ ----
TS9876 XORG_SOURCE 3

SSID: DCZ1 DB: DBGGC01A PS: XPRI0000 DBID: 322 PSID: 6
CREATOR INDEX/TABLE_NAME OBID
------------------------------------ ------------------------------------ ----
```

Chapter 1. Db2 Change Accumulation Tool overview
If XML objects are not specified, Db2 Change Accumulation Tool will not use XML_IDS_DSN, if it can connect to the target subsystem by itself.

Here is an example of the SYSIN parameters:

```bash
CHANGE_ACCUM(
  GROUP {
    SPACE {
      DATA_BASE DBGGCO1A
      SPACE_NAME TSGGC01A
      OBIDXLAT {
        XLAT_DSN 'DCZ1.DSNDBC. DBGGCO1A.TSGGC01A.I0001.A001'
        DBID '465,322'
        PSID '000006,000006'
        OBID '000005,000005'
      }
    }
  }
)
```

SYSOUT:

5697-P45 IBM DB2 CHANGE ACCUMULATION TOOL V03.10 RUN DATE 2019/04/12 RUN TIME 05:15:10

DSNU0001 102 05:15:10.84 DSNUUGTC - OUTPUT START FOR UTILITY, UTILID = GGC#OBRP
DSNU1045I 102 05:15:10.84 DSNUUGTIS - PROCESSING SYSIN AS UNICODE UTF-8
DSNU0001 102 05:15:10.85 DSNUUGTC - TEMPLATE LOADTEMP DSN TS9876.TMP.GGC310.DX1B.GGCO007A.EXPORT CATLG, CATLG
DSNU1035I 102 05:15:10.85 DSNUUDR - TEMPLATE STATEMENT PROCESSED SUCCESSFULLY
DSNU0050I 102 05:15:10.85 DSNUUGTC - LOAD DATA INDDN LOADTEMP
DSNU650I 1DCZI 102 05:15:10.85 DSNUWI - INTO TABLE XMLSTRINGS FORMAT INTERNAL
DSNU1038I 102 05:15:10.88 DSNUUGDY - DATASET ALLOCATED. TEMPLATE=LOADTEMP DDNAME=SYS00001
DSNU0050I 1DCZI 102 05:15:10.94 DSNUWT - (RE)LOAD PHASE STATISTICS - NUMBER OF RECORDS=4007 FOR TABLESPACE DSNDB04.TSGGCXML
DSNU1147I 1DCZI 102 05:15:10.94 DSNUWT - (RE)LOAD PHASE STATISTICS - TOTAL NUMBER OF RECORDS LOADED=4007 FOR TABLESPACE DSNDB04.TSGGCXML
DSNU302I 102 05:15:10.94 DSNUURLD - (RE)LOAD PHASE STATISTICS - NUMBER OF INPUT RECORDS PROCESSED=4007 FOR TABLESPACE DSNDB04.TSGGCXML
DSNU300I 102 05:15:10.94 DSNUURLD - (RE)LOAD PHASE COMPLETE, ELAPSED TIME=00:00:00
DSNU0050I 102 05:15:11.00 DSNUUGTC - OUTPUT START FOR UTILITY, UTILID = GGC#OBRP
DSNU1045I 102 05:15:11.08 DSNUUGTIS - PROCESSING SYSIN AS UNICODE UTF-8
DSNU0050I 102 05:15:11.08 DSNUUGTC - TEMPLATE UNLDTEMP DSN TS9876.TMP.GGC310.DCZ1.GGCO007A.IMPORT CATLG, CATLG
DSNU1035I 102 05:15:11.09 DSNUUDR - TEMPLATE STATEMENT PROCESSED SUCCESSFULLY
DSNU0050I 102 05:15:11.09 DSNUUGTC - UNLOAD DATA
DSNU650I 1DCZI 102 05:15:11.09 DSNUUGMS - FROM TABLE DLC.XMLSTRINGIDS FORMAT INTERNAL UNLDON UNLDTEMP
DSNU1038I 102 05:15:11.12 DSNUUGDyn - DATASET ALLOCATED. TEMPLATE=UNLDTEMP DDNAME=SYS00002
DSNU0050I 1DCZI 102 05:15:11.12 DSNUUGTC - UNLOAD DATA
DSNU253I 102 05:15:11.13 DSNUUNLD - UNLOAD PHASE STATISTICS - NUMBER OF RECORDS UNLOADED=4007 FOR DLC.XMLSTRINGIDS
DSNU252I 102 05:15:11.13 DSNUUNLD - UNLOAD PHASE STATISTICS - NUMBER OF RECORDS UNLOADED=4007 FOR DSNDB04.TSGGCXML
DSNU250I 102 05:15:11.13 DSNUUNLD - UNLOAD PHASE COMPLETE, ELAPSED TIME=00:00:00
DSNU00101 102 05:15:11.14 DSNUUGBC - UTILITY EXECUTION COMPLETE, HIGHEST RETURN CODE=0

IBM Db2 Change Accumulation Tool for z/OS
Support for Large Block Interface (LBI) format

Db2 Change Accumulation Tool provides the ability to read data sets that are stored using the Large Block Interface (LBI) format.

Support for sliding scale allocation

Db2 Change Accumulation Tool provides support for sliding scale allocation. This reduces the number of out-of-space conditions and makes it possible to reach the maximum data set size without running out of secondary extents.

Note:
- You can enable sliding scale allocation in Db2 V8 NFM and higher.
- Sliding scale allocation is applied to Db2 managed data sets that are STOGROUP defined.
- Data sets for the Db2 catalog and directory are managed by Db2 and must be SMS-managed.
- If Extent Constraint Removal “Y” is specified in the data class, then 7257 extents can be used for data set allocations instead of 255.
- You can specify the OPTIMIZE EXTENT SIZING parameter during the installation of Db2 on the DSNTIP7 panel.

Enabling support for sliding scale allocation

To enable sliding scale allocation for secondary extent allocations of tables spaces and indexes, specify YES for the Db2 DSNZPARM parameter OPTIMIZE EXTENT SIZING to enable sliding scale for secondary extent allocations.

Disabling support for sliding scale allocation

To disable sliding scale allocation for secondary extent allocations of tables spaces and indexes, specify NO for the Db2 DSNZPARM parameter OPTIMIZE EXTENT SIZING to enable sliding scale for secondary extent allocations.
Considerations when using Db2 Change Accumulation Tool and sliding scale allocation

For non-striped VSAM data sets, use the SMS data class parameter to specify the primary and secondary allocation amounts to use when extending to a new volume. You can expand the space for a non-striped VSAM component to 255 extents.

For SMS-managed VSAM data sets, this extent limit is removed if Extent Constraint Removal is specified in the data class. The theoretical limit is the maximum number of volumes (59), times 123 extents per volume, or 7257 extents.

You can expand the space for a striped VSAM component to 255 times the number of stripes. The VSAM limit of 255 extents is still enforced for any non-SMS-managed data set. The system reserves the last four extents for extending a component when the system cannot allocate the last extent in one piece.

Starting in z/OS V1R7, the 255-extent per stripe limit is removed if the extent constraint removal parameter in the data class is set to Y (yes). The default value is N (no), to enforce the 255-extent limit. This limit must be enforced if the data set might be shared with a pre-V1R7 system.

Db2 Change Accumulation Tool components and architecture

Db2 Change Accumulation Tool runs in batch and operates in mini log mode, image copy mode, or recovery mode.

Mini log mode

In mini log mode, Db2 Change Accumulation Tool creates mini logs, data sets that contain Db2 log information for a specific table space or sets of table spaces. When running in mini log mode, Db2 Change Accumulation Tool:

1. Obtains the RBA/LRSN of the most recent usable full image copy of the object from the Db2 catalog.
2. Advances that RBA/LRSN with the RBA/LRSNs found for all incremental image copies that follow.
3. Further advances the RBA/LRSN based on usable data sets found in the mini log table.
4. Applies all subsequent log records to the specified recovery point to the mini log.
5. Registers the resulting mini log in the MCT.

Image copy mode

In image copy mode, Db2 Change Accumulation Tool creates image copies of a database, table space, or set of table spaces at any time without making them unavailable. When running Db2 Change Accumulation Tool in image copy mode, Db2 Change Accumulation Tool:

1. Obtains the last full image copy of the object from the Db2 catalog.
2. Applies all incremental image copies that follow.
3. Applies all mini log records.
4. Applies all following log records to the specified recovery point.
Note: The RBA chosen to be loaded into SYSCOPY is determined by rolling the RBA back to the start point of any in-flight URIDs. If there are no in-flight URIDs, the RBA might be adjusted forward to the next SYSLOGRANGE start point, if there is one, or to the RBA of the last valid log record read from the log, if there are no additional SYSLOGRANGE records. This means that Db2 Change Accumulation Tool does not have to verify the validity of a specified log point and thus avoids the need to perform a tape mount, data set allocation, or extra I/O.

5. Registers the resulting full image copy in SYSIBM.SYSCOPY (if required) as a local or a remote site copy.

The resulting image copy becomes a new recovery point, available to any recovery process, just as any normal image copy.

In the Db2 Change Accumulation Tool job, you define the characteristics of the process (via the SYSINGGC DD card), the objects involved, the recovery point, and whether the image copy is going to be registered.

Recovery mode

In recovery mode, Db2 Change Accumulation Tool enables you to select where changes are written to (image copies, VSAM files, or both) and perform recovery scenarios or create image copies.

When running in recovery mode, the steps that the Db2 Change Accumulation Tool takes to obtain these copies include the following:
1. Obtains the last full image copy of the object from the Db2 catalog.
2. Applies all incremental image copies that follow.
3. Applies usable mini logs.
4. Applies all following log records to the specified recovery point.
5. Writes changes to the VSAM file.

Service updates and support information

Service updates and support information for this product, including software fix packs, PTFs, frequently asked questions (FAQs), technical notes, troubleshooting information, and downloads, are available from the web.

To find service updates and support information, see the following website:


Product documentation and updates

DB2 Tools information is available at multiple places on the web. You can receive updates to DB2 Tools information automatically by registering with the IBM My Notifications service.

Information on the web

The DB2 Tools Product Documentation web page provides current product documentation that you can view, print, and download. To locate publications with the most up-to-date information, refer to the following web page:
You can also access documentation for many DB2 Tools from IBM Knowledge Center:

http://www.ibm.com/support/knowledgecenter

Search for a specific DB2 Tool product or browse the Information Management > DB2 for z/OS family.

IBM Redbooks® publications that cover DB2 Tools are available from the following web page:

http://www.redbooks.ibm.com

The Data Management Tools Solutions website shows how IBM solutions can help IT organizations maximize their investment in DB2 databases while staying ahead of today’s top data management challenges:


Receiving documentation updates automatically

To automatically receive emails that notify you when new technote documents are released, when existing product documentation is updated, and when new product documentation is available, you can register with the IBM My Notifications service. You can customize the service so that you receive information about only those IBM products that you specify.

To register with the My Notifications service:

1. Go to http://www.ibm.com/support/mysupport
2. Enter your IBM ID and password, or create one by clicking register now.
3. When the My Notifications page is displayed, click Subscribe to select those products that you want to receive information updates about. The DB2 Tools option is located under Software > Information Management.
4. Click Continue to specify the types of updates that you want to receive.
5. Click Submit to save your profile.

How to send your comments

Your feedback is important in helping to provide the most accurate and high-quality information. If you have any comments about this book or any other IBM product documentation, use one of the following options:

• Use the online reader comment form, which is located at http://www.ibm.com/software/data/rcf/
• Send your comments by email to comments@us.ibm.com. Include the name of the book, the part number of the book, the version of the product that you are using, and, if applicable, the specific location of the text you are commenting on, for example, a page number or table number.

Accessibility features

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use a software product successfully.
The major accessibility features in this product enable users to perform the following activities:

- Use assistive technologies such as screen readers and screen magnifier software. Consult the assistive technology documentation for specific information when using it to access z/OS interfaces.
- Customize display attributes such as color, contrast, and font size.
- Operate specific or equivalent features by using only the keyboard. Refer to the following publications for information about accessing ISPF interfaces:
  - z/OS ISPF User’s Guide, Volume 1
  - z/OS TSO/E Primer
  - z/OS TSO/E User’s Guide

These guides describe how to use the ISPF interface, including the use of keyboard shortcuts or function keys (PF keys), include the default settings for the PF keys, and explain how to modify their functions.
# Chapter 2. Preparing to customize Db2 Change Accumulation Tool

Before you start to customize Db2 Change Accumulation Tool for the first time, determine all of the customization values that you need to specify during the customization process, and familiarize yourself with all of the customization tasks.

The following checklist lists and describes each significant customization step. Use this checklist to guide you through the entire customization process.

**Tip:** Print the following checklist and the data set names and parameter values worksheets. Use the worksheets to record your values, and refer to them during the customization process.

<table>
<thead>
<tr>
<th>Task</th>
<th>Link to detailed instructions</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tools Customizer basics</strong></td>
<td>“Tools Customizer terminology” on page 554</td>
<td></td>
</tr>
<tr>
<td>Prior to beginning the customization process, familiarize yourself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with Tools Customizer terminology and data sets, and other basic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>information about Tools Customizer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Software requirements</strong></td>
<td>“Verify that your environment meets software requirements” on page 25</td>
<td></td>
</tr>
<tr>
<td>Verify that your environment meets the minimum software requirements.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To install and use Db2 Change Accumulation Tool, your environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>must be running a supported version of the z/OS operating system and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>of Db2 for z/OS. Additionally, certain levels of maintenance must</td>
<td></td>
<td></td>
</tr>
<tr>
<td>be applied.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMP/E installation</strong></td>
<td>“Verify that Tools Customizer has been installed successfully” on page 25</td>
<td></td>
</tr>
<tr>
<td>Verify that Db2 Change Accumulation Tool has been installed correctly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Db2 Change Accumulation Tool is installed by using standard SMP/E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>processing,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verify that Tools Customizer for z/OS has been installed correctly.</td>
<td>“Verify that Tools Customizer has been installed successfully” on page 25</td>
<td></td>
</tr>
<tr>
<td>Tools Customizer for z/OS is installed by using standard SMP/E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>processing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Security requirements</strong></td>
<td>“Verify that your environment meets security requirements” on page 25</td>
<td></td>
</tr>
<tr>
<td>Make sure that you have the required authorizations to use Db2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Accumulation Tool.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gather data set names</strong></td>
<td>“Worksheets: Gathering required data set names” on page 31</td>
<td></td>
</tr>
<tr>
<td>During the customization process, you must specify data set names</td>
<td></td>
<td></td>
</tr>
<tr>
<td>for the following things:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Tools Customizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• FEC (common code)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APF authorization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Link to detailed instructions</td>
<td>Status</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>The following data sets must be APF authorized:</td>
<td>“APF authorizing load libraries” on page 34</td>
<td></td>
</tr>
<tr>
<td>• SGGCLOAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• SFECLOAD</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>zPARM modifications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Note to writers:</strong> Include information about zPARM modifications for your product. If zPARM modifications are not relevant to your product, remove this row and the preceding row.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gather parameter values</strong></td>
<td>“Worksheets: Gathering parameter values for Tools Customizer” on page 34</td>
<td></td>
</tr>
<tr>
<td>During the customization process, you must specify parameter values for Db2 Change Accumulation Tool, Db2, and your LPAR.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customize Db2 Change Accumulation Tool</strong></td>
<td>“Starting Tools Customizer” on page 56</td>
<td></td>
</tr>
<tr>
<td>Start Tools Customizer by running a REXX EXEC from the ISPF Command Shell panel.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set up Tools Customizer user settings. If you are running Tools Customizer for the first time, you must modify several user settings to suit your environment. Otherwise, if the user settings that you have already established are still appropriate, skip this step.</td>
<td>“Modifying Tools Customizer user settings” on page 57</td>
<td></td>
</tr>
<tr>
<td>Complete the steps in the appropriate customization roadmap based on the type of customization that you are performing.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customizing Db2 Change Accumulation Tool for the first time</strong></td>
<td>“Roadmap: Customizing Db2 Change Accumulation Tool for the first time” on page 63</td>
<td></td>
</tr>
<tr>
<td>Follow this roadmap if you do not have a customized version of Db2 Change Accumulation Tool, and you need to customize it for the first time.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Customizing a different version of Db2 Change Accumulation Tool</strong></td>
<td>“Roadmap: Customizing a new version of Db2 Change Accumulation Tool from a previous customization” on page 64</td>
<td></td>
</tr>
<tr>
<td>Follow this roadmap if you have already customized a version of Db2 Change Accumulation Tool and you want to use the same parameter values to customize a different version.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recustomizing Db2 Change Accumulation Tool</strong></td>
<td>“Roadmap: Recustomizing Db2 Change Accumulation Tool” on page 65</td>
<td></td>
</tr>
<tr>
<td>Follow this roadmap if you have a customized version of Db2 Change Accumulation Tool but you want to change one or more parameter values.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Set up your environment prior to customization**

Prior to beginning the customization process, ensure that your environment meets all requirements, that you have installed all prerequisite software, and that you have considered how you want to customize optional features.
Verify that your environment meets software requirements

In addition to the maintenance requirements that are documented in the program directory, make sure that your system meets the requirements described in "Requirements and usage considerations" on page 26.

Verify that Tools Customizer has been installed successfully

Tools Customizer is a component of IBM Tools Base for z/OS (5655-V93), which is available free of charge. Tools Customizer provides a standard approach to customizing IBM Db2 for z/OS Tools.

See the Program Directory for IBM Tools Base for z/OS, GI10-8819 for installation instructions.

Verify that your environment meets security requirements

Db2 Change Accumulation Tool requires no extra security measures outside of standard Db2 security. If a user does not have authority to view a table within a Db2 subsystem, Db2 Change Accumulation Tool will not allow the user to see data changes made to that table. Similarly, undo and redo SQL that generated from the product can be run through products such as SPUFI or QMF®, and therefore also adheres to normal Db2 security for the user who runs this SQL.

You must have authorization to run the SELECT statement on the following tables:

- SYSIBM.SYSAUXRELS
- SYSIBM.SYSCOLUMNMS
- SYSIBM.SYSCOPY
- SYSIBM.SYSFIELD
- SYSIBM.SYSINDEXES
- SYSIBM.SYSKEYS
- SYSIBM.SYSKEYTARGETS
- SYSIBM.SYSTABLEPART
- SYSIBM.SYSTABLES
- SYSIBM.SYSTABLESPACE
- SYSIBM.SYSXMLRELS
- SYSIBM.SYSXMLSTRINGS
- SYSIBM.SYSLOGRANGE

By default, Db2 Change Accumulation Tool can run the REPORT utility against filtered objects. This activity is transparent to the user and can be disabled by setting the Misc Flags value on the general report panel to a value of X. If you do not disable this feature for any given run, you must have one of the following authorizations to access the REPORT utility through Db2 Change Accumulation Tool:

- RECOVERDB privilege for the database
- DBADM or DBCTRL authority for the database
- SYSCTRL or SYSADM authority
Requirements and usage considerations

The following are the operating system and environment requirements for Db2 Change Accumulation Tool.

Topics:
- “Mainframe operating system and environment”
- “Coexistence considerations” on page 28
- “Usage considerations” on page 28
- “Considerations for recovering to a different table space” on page 28

Mainframe operating system and environment

The following mainframe operating system and environment requirements apply to Db2 Change Accumulation Tool.

- IBM z/OS V2.1 and later
- Db2 V10 and later
- ISPF V4 and later

Required authorizations

APF authorization

Db2 Change Accumulation Tool requires that the target load libraries highlevel.SGGCLOAD and highlevel.SFECLOAD be APF authorized. For more information, see “Setting up APF authorization of load libraries” on page 27.

Db2 authorization

The following additional Db2 authorizations are required:

- Authority to execute the GGC plan
- Authority to execute the REPORT utility

RACF authorization

To use Db2 Change Accumulation Tool, users must have the following RACF authorizations:

- Read authority for the BSDS
- Read authority for any archive log on DASD or TAPE
- Read authority for any active log
- Allocation of sort work data sets
- Read / write authority for the control file KSDS
- Authority to write to the Db2/VSAM LDS data set HLQ and or image copy data sets

USS authorization

To run Db2 Change Accumulation Tool jobs, users must be authorized to use USS on the z/OS machine.

OMVS requirements

Db2 Change Accumulation Tool jobs must run under a user ID that has a valid OMVS segment definition
Maintenance considerations

PH10864 is a noncumulative APAR. All previous APARs must have been installed before you install PH10864. See the section below for more information.

After you apply PH10864, you should generate a new BIND JCL from TCz.

With PH10864, a new DBRM module, GGC#WRIT, has been added. The #WRIT program must be included in the package BIND list to be included in the executed plan. This includes existing programs like #CARD, #LGAP, #MAIN, etc.

APAR PI91130 is a cumulative APAR that includes all maintenance to-date since base code. You can skip all previous maintenance for Db2 Change Accumulation Tool V3.1 and APAR PI91130.

APAR PI91130 does not require any BIND JCL changes or repository changes.

Previous APARs PM75396, PM96759, and PI68376 included repository changes. If any of these APARs are not applied before you applied APAR PI91130, then you must complete some additional steps after you apply PI91130:

- If you did not apply APAR PM75396 before you applied APAR PI91130:
  1. From TCz, select the option Upgrade DB2 objects for APAR# PM75396 to generate JCL.
  2. Run this JCL on all SSID to make the repository changes. You can also see the repository changes in SAMPLIB member GGC#DDL2.

- If you did not apply APAR PM96759 before you applied APAR PI91130:
  1. From TCz, select the option Upgrade DB2 objects for APAR# PM96759 to generate JCL.
  2. Run this JCL on all SSID to make the repository changes. You can also see the repository changes in SAMPLIB member GGC#DDL3.

- If you did not apply PI68376 (Fixing APAR for PE APAR PI55449) before you applied APAR PI91130:
  1. From TCz, select the option Upgrade DB2 objects for APAR# PI55449 to generate JCL.
  2. Run this JCL on all SSID to make the repository changes. You can also see the repository changes in SAMPLIB member GGC#DDL4.

Previous APARs PI41783, PI68376, and PI84638 included BIND JCL changes. If any of these APARs was not applied before you applied PI91130, you might be missing some members from your BIND JCL. You can generate a new BIND JCL from TCz that includes all members to your BIND or you can add the corresponding members listed for each APAR to the BIND JCL.

- PI41783 – Member GGC#LOGR was added with this APAR
- PI68376 (Fixing APAR for PE APAR PI55449) – Members GGC#CL, GGC#TB, GGC#CL7, GGC#TB7, GGC#IXN8, GGC#TS8, GGC#NTFM, GGC#NTFU was added with this APAR
- PI84638 - Members GGC#XMLI and GGC#XMLU was added with this APAR

Setting up APF authorization of load libraries

Follow these steps to set up the required APF authorizations of load libraries.
Procedure
1. Include the `highlevel.SGGCLOAD` and `highlevel.SFECLOAD` libraries as part of your system APF-authorized list. Contact your systems administrator if you encounter difficulties starting Db2 Change Accumulation Tool.
2. Add the program `FEC$TSOC` to the `AUTHPGM` and `AUTHTSF` sections of member IKJTSO00 in SYS1.PARMLIB. For more information on IKJTSO00, refer to the `z/OS MVS Initialization and Tuning Reference (SA22–7592)`.
3. Changes you make to SYS1.PARMLIB require an IPL command for the PARMLIB updates to take effect. Perform an IPL for the PARMLIB updates to take effect.

Coexistence considerations
If you are using Db2 Automation Tool V3.1 or later, and Db2 Change Accumulation Tool V3.1, do not rerun the DDL that creates the DLC repository during installation.

Usage considerations
The following general usage considerations should be noted.
- To use Db2 Change Accumulation Tool, a valid full image copy of the table space being processed must be recorded in SYSCOPY or there must be a valid starting point in SYSCOPY for each table space processed. Additionally, you must have plan execution access on the Db2 Change Accumulation Tool plan for the subsystems on which you intend to run Db2 Change Accumulation Tool.
- Db2 Change Accumulation Tool must also be able to access the archive and active logs needed to build the new image copy. Db2 Change Accumulation Tool uses Db2 throughout its execution path and therefore Db2 must be running in order for Db2 Change Accumulation Tool to start and run.
- If you use the same end point for all spaces in a Db2 Change Accumulation Tool run, place all space (..) control cards under one group (.). Do not specify one group for every space.
- Db2 Change Accumulation Tool was developed with IBM z/OS XL C/C++.

Considerations for recovering to a different table space
Db2 Change Accumulation Tool supports the following recovery scenarios when recovering to a different table space.

Scenario 1: Recovery to an object that currently exists
You can recover an object that currently exists to any point in time to a different table space on the same Db2 or to a different Db2. Additionally, Db2 Change Accumulation Tool can generate JCL to perform a REBUILD INDEX. In this scenario, the object currently exists and the relevant information is in the catalog (such as SYSCOPY or SYSLGRNGX). Db2 Change Accumulation Tool performs a standard WRITE_TO_VSAM. You can:
- Convert any table space to another table space of the same organization
- Specify a target data set that is on the same Db2 as the source data set
- Specify a target data set (VSAM LDS) on another Db2 that has DASD sharing with the source data set

Scenario 2: Recovery to an object that has been dropped
When recovering an object that has been dropped, Db2 Change Accumulation Tool is able to perform a WRITE_TO_VSAM to a new version of a dropped object. By use of the DBID/PSID/OBID control cards,
you can use Db2 Change Accumulation Tool to translate the input data set and log to an arbitrary table space. You can:

- Convert any table space to another table space of the same organization
- Specify a target data set that is on the same Db2 as the source data set
- Specify a target data set (VSAM LDS) on another Db2 that has DASD sharing with the source data set

**Note:**

- You must manually create the empty target objects (the table space and indexes).
- If the (dropped) source object was on some other Db2, the create DDL for the source object has to be run on the other Db2 prior to running Db2 Change Accumulation Tool (so the source object has the same columns it did before it was dropped). Additionally, you must specify information such as image copy names, original and new OBIDs and RBAs of the original image copies, incremental image copies and associated RBAs and LRSNs, etc. for the source object.
- Db2 Change Accumulation Tool can also generate REBUILD INDEX JCL in this case, but you must re-create the indexes. Db2 Change Accumulation Tool reads all the log information from the RBA (which you must specify) of the latest image copy (full or incremental).
- Specifying input data set overrides (full and incremental image copies) indicates to Db2 Change Accumulation Tool that the input table space has been dropped and therefore the SYSCOPY and SYSLOGRANGE data is not available. Db2 Change Accumulation Tool will read the entirety of the Db2 log from the earliest start point to the latest end point for the translated objects.

**Important:** Extreme care must be taken when using full overriding such as this. If partial recovery operations took place at some point in the log, unpredictable results may occur. Db2 Change Accumulation Tool normally finds Partial recovery rows in SYSCOPY and ignores those log ranges. If a table space is dropped, those Partial recovery rows in SYSCOPY are lost, making it impossible to determine which log ranges to ignore.

**General restrictions and considerations**

The following general restrictions and considerations apply to OBID translation functionality:

- When recovering an object using the OBID translation functionality, you must ensure the target table space has the same organization as the source table space. The structures of the tables and the table creation parameters (such as buffer pool size, CIsize) must match.
- Db2 Change Accumulation Tool can only connect to the source Db2, not the target Db2. It can therefore not verify the target control card values specified just like it makes no editing decisions on the output data set name.
- When using the OBID translation functionality, the WRITE_TO_VSAM, WRITE_TO_COPIES, and WRITE_TO_BOTH control cards are ignored.
Recovery mode (WRITE_TO_VSAM and WRITE_TO_BOTH) restrictions and considerations

When doing a Db2 Change Accumulation Tool recovery mode (WRITE_TO_VSAM) OBID translation, you should stop the target DB.TS before the OBIDXLAT is performed. After OBIDXLAT, start the DB.TS and then perform a Rebuild Index for the Target DB.TS. Since Db2 Change Accumulation Tool does not try to connect to the target DB.TS, Db2 Change Accumulation Tool will not generate STOP/START steps for the Target DB.TS.

Image copy mode (WRITE_TO_COPIES) restrictions and considerations

When you use a Db2 Change Accumulation Tool in image copy mode with the OBIDXLAT control card, the Db2 Change Accumulation Tool IC data set will not be created.

If you intend to apply log records during an OBID translation operation, the output data set must be the underlying VSAM table space. The SYSCOPY row for an image copy contains a column that indicates how many pages are contained on that image copy. If Db2 Change Accumulation Tool is used to overwrite that image copy data set, and that overwrite process alters the number of pages found on that data set, an inconsistency is created between the data set and the SYSCOPY row. Since this data set may be tied to a different Db2, Db2 Change Accumulation Tool does not assume it can update the syscopy row for this data set. If the data set is then used by the recover utility, it will be rejected for use due to the introduced inconsistency.

When using Db2 Change Accumulation Tool in image copy mode with the OBIDXLAT control card, if there is no log data and FORCE_COPIES is not used, the Db2 Change Accumulation Tool IC job (with OBID translation) will complete with a RC=00 and delete the content of the IC data set specified on XLAT_DSN. To avoid this, we recommend that you use the FORCE_COPIES control card when running in image copy mode and there is no log data with OBID translation.

Rebuild index restrictions and considerations

When you rebuild an index, the following considerations apply:

- If the source object does not have any indexes, the REBUILD INDEX step will not be created, even if you specify an alternate DB.TS and set Rebuild Index to Y.
- For the target DB.TS, when Process IX on the object profile is set to Y and Rebuild Index is set to Y on the utility profile, Db2 Change Accumulation Tool creates a separate job for the REBUILD INDEX in the same member.
- Isolate the REBUILD INDEX job to a separate member and run on the LPAR where the Target DB.TS is located (this member could be on the same LPAR or on a different LPAR).

Related concepts:

“Recover to a different table space (OBIDXLAT)” on page 7

This feature allows you to keep table images in sync using the WRITE_TO_VSAM to recover the tables in an image copy to a different VSAM and table space than the one that is specified in the generated logs.
Upgrading

This section provides Db2 Change Accumulation Tool version information for users who are upgrading from earlier versions.

Topics:
- “Upgrading from previous releases of Db2 Change Accumulation Tool”
- “Upgrading from an earlier to a later version of Db2”

Upgrading from previous releases of Db2 Change Accumulation Tool
Db2 Change Accumulation Tool V3.1 can coexist with all previous releases (1.1, 1.2, 1.3 1.4 and 2.1).

You must be at Db2 Change Accumulation Tool 2.1 with all maintenance applied to upgrade to Db2 Change Accumulation Tool 3.1.

Note: You cannot upgrade to GGC V3.1 directly from GGC V1.4. You must either delete the repository and recreate it with the new version of GGCDDL or run the three V2.1 DDL streams in SPUFI (in GGC V2.1 these include SAMPLIB members GGC#DDL1, GGC#DDL2 and GGC#DDL3).

Upgrading from an earlier to a later version of Db2
When you upgrade from an earlier version of Db2, consider the following information.

Upgrading from Db2 V9 or V10 to V11 - Compatibility Mode (CM), Enhanced New Function Mode (ENFM) and New Function Mode (NFM)

When upgrading from Db2 V9 or V10 to V11 (CM, ENFM, NFM), use TCz to generate the appropriate BIND job for the level of Db2 you are migrating to and then run that BIND job.

You can optionally use TCz to update the control file with the new information about your DB2 SSID as an option to manually updating the control file through the setup panels (otherwise, update the Setup panels with the appropriate subsystem information).

Worksheets: Gathering required data set names

Identify and record the data set names that will be used during the customization process and make sure that requirements for certain data sets are met.

Data set names for Tools Customizer

Identify and record the following Tools Customizer data set names:

<table>
<thead>
<tr>
<th>Data set name</th>
<th>Description</th>
<th>Special requirements</th>
<th>Your data set name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCCQDENU</td>
<td>Metadata library for Tools Customizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCCQLOAD</td>
<td>Executable load module library for Tools Customizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data set name</td>
<td>Description</td>
<td>Special requirements</td>
<td>Your data set name</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------</td>
<td>----------------------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>SCCQMENU</td>
<td>ISPF messages for Tools Customizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCCQPENU</td>
<td>ISPF panels for Tools Customizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCCQSAMP</td>
<td>Sample members for Tools Customizer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCCQTENU</td>
<td>Table library for Tools Customizer</td>
<td>You must have write access to this data set.</td>
<td></td>
</tr>
</tbody>
</table>

**Data set names of Db2 Change Accumulation Tool**

Identify and record the following Db2 Change Accumulation Tool data set names. During the customization process, you will enter the following values on panel CCQPPRD.

<table>
<thead>
<tr>
<th>Data set name</th>
<th>Description</th>
<th>Special requirements</th>
<th>Your data set name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGGCDBRM</td>
<td>DBRM library for Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGGCLOAD</td>
<td>Executable load module library for Db2 Change Accumulation Tool</td>
<td>You must APF authorize this data set.</td>
<td></td>
</tr>
<tr>
<td>SGGCMENU</td>
<td>ISPF messages for Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGGCPENU</td>
<td>ISPF panels for Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGGCSAMP</td>
<td>Sample members for Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGGCDENU</td>
<td>Metadata library for Db2 Change Accumulation Tool product parameters</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Data set names of FEC (common code)**

Identify and record the following FEC data set names. During the customization process, you will enter the following values on panel CCQPPRD.

<table>
<thead>
<tr>
<th>Data set name</th>
<th>Description</th>
<th>Special requirements</th>
<th>Your data set name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFECDBRM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFECLOAD</td>
<td>Executable load module library for Db2 Change Accumulation Tool</td>
<td>You must APF authorize this data set.</td>
<td></td>
</tr>
<tr>
<td>SFECMENU</td>
<td>FEC ISPF messages for Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFECPENU</td>
<td>FEC ISPF panels for Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SFECSSAMP</td>
<td>Sample FEC members for Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Data set names of other libraries

Identify and record the following data set names. During the customization process, you will enter the following values on the Setup panel.

<table>
<thead>
<tr>
<th>Data set name</th>
<th>Description</th>
<th>Special requirements</th>
<th>Your data set name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discover output data set</td>
<td>Contains the output that is generated when you run the Db2 Change Accumulation Tool Discover EXEC. The Db2 Change Accumulation Tool Discover EXEC retrieves the metadata and values for the parameters from a previous customization of Db2 Change Accumulation Tool. The default name of the data set is DB2TOOL.CCQ110.DISCOVER. You can change the default value on the Tools Customizer Settings panel or the Discover Customized Product Information panel.</td>
<td>You must have write access to this data set.</td>
<td></td>
</tr>
<tr>
<td>Data store data set</td>
<td>Contains product, LPAR, and Db2 parameter values, and Db2 entry associations. Tools Customizer uses this data set to permanently store all information that is acquired about the product, Db2 subsystems, and LPAR when you customize products on the local LPAR. The default name of the data set is DB2TOOL.CCQ110.DATASTOR. You can change the default value on the Tools Customizer Settings panel.</td>
<td>You must have write access to this data set.</td>
<td></td>
</tr>
<tr>
<td>Data set name</td>
<td>Description</td>
<td>Special requirements</td>
<td>Your data set name</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>
| Product customization   | Contains the customization jobs that Tools Customizer generates for Db2 Change Accumulation Tool. To customize Db2 Change Accumulation Tool, submit the members of the data set in the order in which they are displayed on the Finish Product Customization panel. The data set naming convention is: hlq.$LPAR-name$.xyzvrm  

where:
• hlq is the value of the Customization library qualifier field on the Tools Customizer Settings panel (CCQPSET)  
• LPAR-name is the four-character LPAR name  
• xyzvrm is the three-letter product identifier with the version, release, and modification level  

For example, the data set name might be DB2TOOL.PRODUCT.CUST.$MVS1$.XYZ410. | You must have write access to this data set.                                                                                  |                                                               |

### APF authorizing load libraries

Db2 Change Accumulation Tool requires that the target load libraries `highlevel.SGGCLOAD` and `highlevel.SFELOAD` be APF authorized.

#### Procedure

1. Include the `highlevel.SGGCLOAD` and `highlevel.SFELOAD` libraries as part of your system APF-authorized list. Contact your systems administrator if you encounter difficulties starting Db2 Change Accumulation Tool.
2. Add the program FEC$TSOC to the AUTHPGM and AUTHTSF sections of member IKJTSO00 in SYS1.PARMLIB. For more information on IKJTSO00, refer to the z/OS MVS Initialization and Tuning Reference (SA22-7592).
3. Changes you make to SYS1.PARMLIB require an IPL command for the PARMLIB updates to take effect. Perform an IPL for the PARMLIB updates to take effect.

### Worksheets: Gathering parameter values for Tools Customizer

During the customization process, you will need to provide parameter values for Db2 Change Accumulation Tool, for Db2, and for your LPAR.
Use the worksheets in this topic to record the appropriate parameter settings for your purposes, and then use these worksheets during the customization process. The worksheets are organized based on the order of the customization panels in the Tools Customizer.

**Product to Customize section**

**Description**

The parameters that are listed in this section are read-only. They contain information that was provided on other panels, by Tools Customizer, or by the Db2 Change Accumulation Tool metadata data set.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Discovered?</th>
<th>Source of this value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product metadata library</strong></td>
<td>No</td>
<td>This value is specified on the Specify the Product to Customize panel (CCQPHLQ)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This value is the library that you specified on the Specify the Product to Customize panel. This field is scrollable. Place your cursor anywhere on the field and press PF11 to view its full contents.</td>
</tr>
<tr>
<td><strong>LPAR</strong></td>
<td>No</td>
<td>This value is supplied by Tools Customizer.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The LPAR field displays the LPAR on which you are customizing Db2 Change Accumulation Tool.</td>
</tr>
<tr>
<td><strong>Product name</strong></td>
<td>No</td>
<td>This value is provided by the product metadata file.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This value displays the product that is being customized. In this example, IBM Db2 Change Accumulation Tool should be displayed in this field. This field is scrollable. Place your cursor anywhere on the field and press PF11 to view its full contents.</td>
</tr>
<tr>
<td><strong>Version</strong></td>
<td>No</td>
<td>This value is provided by the product metadata file.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Version field displays the version, release and maintenance of the product you are customizing in the format Vn.Rn.nn.</td>
</tr>
<tr>
<td><strong>Configuration ID</strong></td>
<td>No</td>
<td>This value is provided by the product metadata file.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The configuration ID.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>No</td>
<td>This value is provided by the product metadata file.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The product description.</td>
</tr>
<tr>
<td><strong>Product customization library</strong></td>
<td>No</td>
<td>This value is derived from the user-specified customization library qualifier on the Tools Customizer Settings panel (CCQPSET).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This value displays the name of the data set in which the generated library customization jobs will be stored.</td>
</tr>
</tbody>
</table>

**Task: Required parameters section**

**Description**

This section includes required parameters.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required</th>
<th>Discovered</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Startup CLIST library</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>DB2TOOL.GGC310.GGC10.CLIST</td>
<td></td>
</tr>
<tr>
<td>The library for the GGCV31 and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGCV31C CLISTs. These CLISTs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are used to invoke Db2 Change</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accumulation Tool online under</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISPF.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GGC load library</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>DB2TOOL.GGC310.SGGCLOAD</td>
<td></td>
</tr>
<tr>
<td>The Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V3.1 load library. It can</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>optionally include FEC load</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>modules. Specify the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fully qualified data set name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>without quotes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GGC DBRM library</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>GCDBRM</td>
<td></td>
</tr>
<tr>
<td>The Db2 Change Accumulation Tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>library that contains the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>product-supplied DBRMs. These</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBRMs are inputs to the bind</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GGC ISPF panel library</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>DB2TOOL.GGC310.SGGCPENU</td>
<td></td>
</tr>
<tr>
<td>This data set contains the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISPF panels that are defined and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>used by Db2 Change Accumulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GGC ISPF skeleton library</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>DB2TOOL.GGC310.SGGCSLIB</td>
<td></td>
</tr>
<tr>
<td>This data set contains ISPF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skeletons that are defined and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>used by Db2 Change Accumulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FEC common code load library</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The FEC common code executables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>can be kept in the same library</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>with the Db2 Change Accumulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool load modules. Alternatively</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>it can be kept in its own library</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If it is a separate library,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>specify that library name.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Control file</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>GGC.DB2.CONTROL</td>
<td></td>
</tr>
<tr>
<td>The control file contains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>product customization information,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>including Db2-specific</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>information such as plan names.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specify the name of the KSDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSAM data set that contains the</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control information for Db2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Accumulation Tool. After</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>installation, you can modify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the control file by using option</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 on the Db2 Change Accumulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool primary selection menu.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>**Owner of the Change</td>
<td>Yes</td>
<td>Yes</td>
<td>GGCUSER</td>
<td></td>
</tr>
<tr>
<td>Accumulation packages**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The package owner to be used for</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>package binds.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upgrade Db2 objects for APAR PI55449</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generates upgrade DDL for Db2 objects for an existing installation. For new installations, the DDL that is currently generated already includes the necessary changes. APAR PI55449 introduces changes to the BIND JCL that is generated by Tools Customizer.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Task: Configure EXECs

**Description**

This task builds the jobs to configure the startup CLISTs.

This task is *required*.

<table>
<thead>
<tr>
<th>Step or parameter</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure Startup CLISTs</td>
<td>Yes</td>
<td>Not applicable.</td>
<td>Selected</td>
<td></td>
</tr>
<tr>
<td>Configures the startup CLISTs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Startup CLIST 1</td>
<td>Yes</td>
<td>No</td>
<td>GGCV31</td>
<td></td>
</tr>
<tr>
<td>The name of the first startup CLIST.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Startup CLIST 2</td>
<td>Yes</td>
<td>No</td>
<td>GGCV31C</td>
<td></td>
</tr>
<tr>
<td>The name of the second startup CLIST.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC ISPF message library</td>
<td>Yes</td>
<td>Yes</td>
<td>DB2TOOL.GGC310. SGGCMENU</td>
<td></td>
</tr>
<tr>
<td>This data set contains ISPF messages are defined and used by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEC ISPF message library</td>
<td>Yes</td>
<td>Yes</td>
<td>Blank</td>
<td></td>
</tr>
<tr>
<td>This data set contains ISPF messages that are distributed in the FEC FMID. This data set is optional if the FEC messages are copied into the Db2 Change Accumulation Tool message library.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copy Required Execs</td>
<td>Yes</td>
<td>Not applicable</td>
<td>Selected</td>
<td></td>
</tr>
<tr>
<td>Copies the required execs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC SAMPLIB</td>
<td>Yes</td>
<td>Yes</td>
<td>Blank</td>
<td></td>
</tr>
<tr>
<td>The GGC samplib.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEC SAMPLIB</td>
<td>Yes</td>
<td>Yes</td>
<td>Blank</td>
<td></td>
</tr>
<tr>
<td>The FEC samplib.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Task: Create Db2 objects

**Description**

This task creates the objects that are required to run Db2 Change Accumulation Tool on a Db2 subsystem only if those objects were not previously created in this installation or a previous installation. You should ensure that the mode and levels are correct for each SSID. Execute the
generated job on the LPAR appropriate for the subsystem. You can also use an already existing repository. During the customization process, you will enter these values on panel CCQPPRD. This task is required.

<table>
<thead>
<tr>
<th>Step or parameter</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Entire Repository</td>
<td>No</td>
<td>Not applicable</td>
<td>Not selected</td>
<td></td>
</tr>
<tr>
<td>It is only necessary to create the Db2 Change Accumulation Tool repository when the product is being installed for the first time. This step will create all of the Db2 objects that Db2 Change Accumulation Tool uses.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for repository object names</td>
<td>No</td>
<td>No</td>
<td>DLC</td>
<td></td>
</tr>
<tr>
<td>The qualifier for the repository table names. This qualifier is used when repository objects are created, altered, referenced in SQL or bound into packages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create mini-log table</td>
<td>No</td>
<td>Not applicable</td>
<td>Not selected</td>
<td></td>
</tr>
<tr>
<td>It is only necessary to create the Db2 Change Accumulation Tool mini log table when the product is being installed for the first time. This step will create the mini log objects that Db2 Change Accumulation Tool uses.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for mini-log tables</td>
<td>No</td>
<td>No</td>
<td>GGC</td>
<td></td>
</tr>
<tr>
<td>The qualifier for the Mini Log table name. This qualifier is used when Mini Log objects are created, altered, referenced in SQL or bound into packages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upgrade Db2 objects from a previous release</td>
<td>No</td>
<td>No</td>
<td>Not selected</td>
<td></td>
</tr>
<tr>
<td>Upgrading Db2 objects from a previous release</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upgrade Db2 objects for APAR PM75396</td>
<td>No</td>
<td>No</td>
<td>Not selected</td>
<td></td>
</tr>
<tr>
<td>If Db2 Change Accumulation Tool 3.1 is already installed and the customer has to install APAR PM75396, then this option must be selected and the changes will have to be made to the existing repository. For a newDb2 Change Accumulation Tool 3.1 installations, the DDL generated will already include all changes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for repository object names</td>
<td>No</td>
<td>No</td>
<td>DLC</td>
<td></td>
</tr>
<tr>
<td>The qualifier for repository table names. This qualifier is used when repository objects are created, altered, referenced in SQL or bound into packages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step or parameter</td>
<td>Required?</td>
<td>Discovered?</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-----------</td>
<td>-------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>Copy GGC repository</td>
<td>No</td>
<td>Not applicable</td>
<td>Not selected</td>
<td></td>
</tr>
<tr>
<td>When creating multiple Db2 Change Accumulation Tool configurations in one SSID, it may be desired to copy an already existing repository in that SSID. If so, execute this step.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for repository object names</td>
<td>No</td>
<td>No</td>
<td>GGC</td>
<td></td>
</tr>
<tr>
<td>The qualifier for the repository table names.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for previous repository object names</td>
<td>No</td>
<td>No</td>
<td>DLC</td>
<td></td>
</tr>
<tr>
<td>The qualifier for previous repository table names.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Task: Bind plans and packages**

**Description**

This task binds the plans and packages and required for using Db2 Change Accumulation Tool.

This task is *required / optional*.

<table>
<thead>
<tr>
<th>Step or parameter</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bind Plans and Packages</td>
<td>Yes</td>
<td>Not applicable</td>
<td>Selected</td>
<td></td>
</tr>
<tr>
<td>Binds the plans and packages required for Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for mini-log tables</td>
<td>Yes</td>
<td>No</td>
<td>GGC</td>
<td></td>
</tr>
<tr>
<td>The qualifier for Mini Log table name. This qualifier is used when Mini Log objects are created, altered, referenced in SQL or bound into packages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for ARY objects (optional)</td>
<td>No</td>
<td>No</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The qualifier for ARY objects.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualifier for repository object names</td>
<td>No</td>
<td>No</td>
<td>DLC</td>
<td></td>
</tr>
<tr>
<td>The qualifier for repository table name. This qualifier is used when repository objects are created, altered, referenced in SQL or bound into packages.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Task: Unload profiles**

**Description**

This task specifies the unload profiles settings.

This task is *optional*. 
### Step or parameter | Required? | Discovered? | Default value | Your value
--- | --- | --- | --- | ---
**Unload All job profiles**
Indicates whether you want all job profiles to be unloaded. | No | No | N | |
**Job profile creator name**
The profile creator name of the job profiles to be unloaded. | No | No | CREATOR | |
**Job profile name**
The profile name of the job profiles to be unloaded. | No | No | PROFILE | |
**Replace job profile name**
Indicates whether you want profiles with the same name to be replaced (overlaid). | No | No | Y | |
**Job profile new creator name**
The new creator name for the job profiles. | No | No | NCREATR | |
**Job profile update options**
The update options for the job profiles. The following options are valid: U (any user can view, update or export the profile), V (only the new creator name can update the profile but any other user can view or export it), N (only the new creator name can view, update or export the profile). | No | No | U | |

### Task: Grant execute authority

**Description**
This task grants users execute authority on the plans.
This task is *required*.

### Task: Create control file

**Description**
This task configures each Db2 subsystem within the control file.
This task is optional in the sense that you can either perform this task for all your Db2 subsystems (or any subset of them), or you can perform this same task using option #11 ("Setup") from the Db2 Change Accumulation Tool main menu to configure each Db2 subsystem individually, as needed. A Db2 subsystem must be configured using one of these methods before it can be used with Db2 Change Accumulation Tool.
During the customization process, you will enter these values on panel CCQPPRD.
This task is optional.

<table>
<thead>
<tr>
<th>Step or parameter</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Control File</td>
<td>No</td>
<td>Not applicable</td>
<td>Not selected</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creates the control file.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume serial number for control file</td>
<td>No</td>
<td>No</td>
<td>Blank</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Specify the volume of the VSAM data set that will be used as the control file. Or, leave this field blank to let SMS select the volume.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Task: Update control file

Description
This task updates the Db2 Change Accumulation Tool control file. This task is required. This task is optional.

<table>
<thead>
<tr>
<th>Step</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Control File</td>
<td>No</td>
<td>Not applicable</td>
<td>Selected</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Updates the control file.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Task: Add GGC to the Db2 Admin Tool Launchpad

Description
This task adds Db2 Change Accumulation Tool to the Db2 Administration Tool Launchpad. During the customization process, you will enter these values on panel CCQPPRD. This task is optional.

<table>
<thead>
<tr>
<th>Step or parameter</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add GGC to the Admin Tool Launchpad</td>
<td>No</td>
<td>Not applicable</td>
<td>Selected</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adds Db2 Change Accumulation Tool to the Admin Tool Launchpad.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Db2 Admin high-level qualifier</td>
<td>No</td>
<td>No</td>
<td>ADBHILVL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The high-level qualifier of the Db2 Administration Tool data sets.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADBDMTI data set</td>
<td>No</td>
<td>No</td>
<td>ADBHILVL. SADBEXEC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The data set that contains the ADBDMTI EXEC.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Db2 Admin version</td>
<td>No</td>
<td>No</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The DB2 Administration Tool version.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Db2 Parameters section

Description
This section contains Db2 parameters. All parameters are required. During the customization process, you will enter these values on panel CCQPDB2.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Required?</th>
<th>Discovered?</th>
<th>Default value</th>
<th>Your value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Db2 subsystem ID</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>A distinct instance of a relational database management system (RDBMS) that is not part of a data sharing group. An example of a Db2 subsystem name is DB01.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Group attach name</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The name that is used by the TSO/batch attachment, the call attachment facility (CAF), DL/I batch, utilities, and the Resource Recovery Services attachment facility (RRSAF) as a generic attachment name. An example of a group attach name is DSG1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Db2 Information</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The mode in which the Db2 subsystem is running.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level Number</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The version, release, and modification level of the Db2 subsystem.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Db2 Libraries</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Load Library</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The data set name of the Db2 load library.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Run Library</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The data set name of the Db2 run library.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bootstrap data set</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dataset name of the Db2 bootstrap data set. To add another bootstrap data set, place your cursor on the More and click enter.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Db2 Bufferpools</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Name of the 4 KB bufferpool</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The name of the 4 KB bufferpool to be used for customization.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Db2 Utilities</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Plan name for the DSNTEP2 utility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The plan name for the DSNTEP2 utility.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required?</td>
<td>Discovered?</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>Db2 Change Accumulation Tool Db2 Parameters</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Plan for Change Accum</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Database for GGC objects</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Database for Mini Log Tables</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>GGC Storage Group</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Drop Repository Database first</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Drop Mini Log Database first</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>GGC Shared Profile Packages</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Catalog Package list</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Shadow catalog package list</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Repository package list</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required?</td>
<td>Discovered?</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>-------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>GGC Shared Profile Devices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work file device type</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The default work file unit device to be used when generating JCL. Valid values are SYSDA, DISK, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort work file device type</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The SORT work file unit device to be used when generating utility JCL. Valid values are SYSDA, DISK, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GGC Shared Profile Miscellaneous</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job tracking subsystem name</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>This field is not used by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max primary space allocation</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The maximum number of either cylinders, tracks, or megabytes for a Primary Space Allocation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size unit for max primary space allocation</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The size unit for the maximum primary space allocation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary allocation percentage</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Controls how the secondary allocation parameter is derived and given to dynamic allocation. The value specified here is the percent of the primary allocation that is used to define the secondary allocation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utility region size</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The REGION size in megabytes to be used when generating utility JCL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required</td>
<td>Discovered</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>GGC Shared Profile Miscellaneous (continued)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Db2 fetch buffer size</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The fetch buffer size is used with multi-row fetch. This field should</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>only be changed if you are working with large volumes of Db2 data</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>during your job builds and wish to optimize performance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parallel MVS catalog LOCATE operations</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of parallel processing tasks to be created when performing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVS catalog LOCATE operations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Terminate utility if an abend occurs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generates termination utility JCL in the event a utility ABENDs during</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>its execution.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Generate STEPLIB DDs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inserts STEPLIB DD statements into the JCL to provide an alternate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>means of specifying a private library.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Create image copy DSNs in GMT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generates image copy DSN timestamps in Greenwich Meridian Time (GMT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>instead of local time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required?</td>
<td>Discovered?</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------</td>
<td>-------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>GGC Shared Profile Sort Parameters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sort Program Installed</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The sort program that is installed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sortlib DSN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SORTLIB data set name.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary sort work space</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The primary space used (cylinders) for Db2 Change Accumulation Tool sort work data sets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary sort work space</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The secondary space used (cylinders) for Db2 Change Accumulation Tool sort work data sets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of sort work DDs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of SORTWKnn DD statements used for Db2 Change Accumulation Tool sort work data sets.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC File allocation parameters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of buffers</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The number of buffers to be used by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Channel programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of channel programs to be used by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required</td>
<td>Discovered</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>----------</td>
<td>------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>GGC Work Files parameters for data sets</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Device type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The device type for any work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data set type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The type of data set that will be used for data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Track or cylinder</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The allocation unit for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Primary quantity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The primary quantity for work data sets created by Db2 Change Accumulation Tool (in the units specified in the <strong>Track or Cylinder</strong> field).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Secondary quantity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The secondary quantity for work data sets created by Db2 Change Accumulation Tool (in the units specified in the <strong>Track or Cylinder</strong> field).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum volumes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The maximum number of tape volumes that can be used for the work data sets (if <strong>Device Type</strong> is TAPE).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMS Data class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SMS data class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMS storage class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SMS storage class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMS management class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SMS management class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required</td>
<td>Discovered</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>GGC SYSPRINT Files parameters for data sets</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Device type</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The device type for any work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Data set type</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The type of data set that will be used for data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Track or cylinder</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The allocation unit for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Primary quantity</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The primary quantity for work data sets created by Db2 Change Accumulation Tool (in the units specified in the Track or Cylinder field).</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Secondary quantity</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The secondary quantity for work data sets created by Db2 Change Accumulation Tool (in the units specified in the Track or Cylinder field).</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum volumes</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The maximum number of tape volumes that can be used for the work data sets (if Device Type is TAPE).</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>SMS Data class</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The SMS data class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>SMS storage class</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The SMS storage class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>SMS management class</strong></td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>The SMS management class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required?</td>
<td>Discovered?</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-----------</td>
<td>-------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>GGC mini log data set files parameters for data sets</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td><strong>Device type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The device type for any work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data set type</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The type of data set that will be used for data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Track or cylinder</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The allocation unit for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Primary quantity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The primary quantity for work data sets created by Db2 Change Accumulation Tool (in the units specified in the Track or Cylinder field).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Secondary quantity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The secondary quantity for work data sets created by Db2 Change Accumulation Tool (in the units specified in the Track or Cylinder field).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maximum volumes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The maximum number of tape volumes that can be used for the work data sets (if Device Type is TAPE).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMS Data class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SMS data class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMS storage class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SMS storage class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SMS management class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The SMS management class for work data sets created by Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Required?</td>
<td>Discovered?</td>
<td>Default value</td>
<td>Your value</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------</td>
<td>-------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>GGC Grant Users</td>
<td>Yes</td>
<td>Yes</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Authorization name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The authorization name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 3. Starting and preparing Tools Customizer for use

Use the provided REXX EXEC to start Tools Customizer. The first time that you use Tools Customizer, you must modify the settings that Tools Customizer uses to customize Db2® Change Accumulation Tool.

Tools Customizer overview

IBM Tools Customizer for z/OS (also referred to as Tools Customizer) standardizes many of the customization processes that are required to customize IBM Tools that run on z/OS.

Tools Customizer provides a consistent ISPF interface to ensure that the customization process is the same for all IBM Tools products and solution pack components. It also provides the ability to "discover" parameter values from products or solution pack components that you previously customized manually or by using Tools Customizer.

Features and benefits

Tools Customizer provides the following features:

- A single, consistent ISPF interface ensures that the customization process is the same for all IBM Tools products and solution pack components.
- A Discover EXEC discovers values for common product and Db2 parameters from a product or solution pack component that you previously customized manually or by using Tools Customizer. Each IBM Tools product and solution pack component has a unique Discover EXEC. The discovered parameters are stored in the data store. If the product or solution pack component that you want to customize exists in the Tools Customizer data store, Tools Customizer issues a warning before it overwrites existing values. Use the Discover EXEC by issuing the DISCOVER command on the Customizer Workplace panel.
- The data store retains discovered and manually specified parameter values. Because the parameter information is persistently stored, you have to manually specify or discover parameter values only once. Tools Customizer uses these parameter values where they are applicable.
- A metadata repository contains the members that define the following customization attributes for products and solution pack components:
  - Parameters, tasks, and steps for the product or solution pack component to be customized. Some product or solution pack parameters, tasks, and steps are required.
  - Db2 parameters for the Db2 subsystem or Db2 data sharing member on which you will customize the product or solution pack component. All of the Db2 parameters are required.
- Default values are provided for product parameters and solution pack component parameters and Db2 parameters. The default values show examples of how to complete fields.
Starting and preparing Tools Customizer for use

Use the provided REXX EXEC to start Tools Customizer. The first time that you use Tools Customizer, you must modify the settings that Tools Customizer uses to customize Db2 Change Accumulation Tool.

Best Practice: SMP/E and runtime libraries maintenance strategy for Tools Customizer

Tools Customizer creates relationships between the values for the Product Parameters, LPAR Parameters, and Db2 Subsystem Parameters for each Tools Customizer enabled product. Determining the correct maintenance strategy for your Tools Customizer runtime libraries, after SMP/E processing, can reduce problems working with Tools Customizer and the enabled products through their life cycles.

Tools Customizer has very specific requirements for data set names:
- Only one DATASTOR data set exists per LPAR
- The product metadata library data set names do not change during the life of that release of the Tools Customizer enabled product.

The DATASTOR data set is the repository for all the information that Tools Customizer requires to generate customization JCL for enabled products.

When you update and save the Tools Customizer Settings panel (CCQPSET), as described in “Modifying Tools Customizer user settings” on page 57, the name of the DATASTOR data set is saved in the ISPF profile. This allows Tools Customizer to know the active DATASTOR data set when the TSO user id logs in and starts the Tools Customizer EXEC.

Maintenance scenarios

IBM expects maintenance to be applied to libraries which are then used by Tools Customizer. In practice, different customer shops distribute SMP/E APPLY maintenance in different ways.

The following scenarios explains some considerations and alternatives for determining your maintenance strategy. The one overriding objective is to preserve and maintain the same data set names for the Tools Customizer instance.

Apply SMP/E maintenance to the same data sets (using the SMP/E APPLY command):

If you apply SMP/E maintenance (using the SMP/E APPLY command) using the same data set names with each maintenance cycle, you can either use these target libraries as your Tools Customizer runtime libraries or you can copy the SMP/E target data sets to the runtime libraries that are used by Tools Customizer to customize enabled products.

Tools Customizer assumes that if the product metadata library (*DENU) has the same name, this metadata library is for the same release of the enabled product. For example, assume that you customize Db2 Log Analysis Tool v3.3 and name the metadata library SYS2.0B2T00L.SALADENU, with no indication of the version or release. You then upgrade to Db2 Log Analysis Tool v3.4 and employ the same naming convention, SYS2.0B2T00L.SALADENU. Tools Customizer will assume that you are
continuing to work with Db2 Log Analysis Tool v3.3 and will report v3.3 on panels and continue to use the same v3.3 Customization Library data set.

A more sustainable approach to naming the data sets is to include a product version, release identifier, or other distinguishing qualifier in the name of the metadata library, so that Tools Customizer can determine the new product release when you upgrade. For example, using metadata library names that include a product version, release identifier, or other distinguishing qualifier, similar to the following, can make product maintenance and upgrades easier:

- DB2TOOL.R330.SALADENU for Db2 Log Analysis Tool v3.3
- DB2TOOL.R340.SALADENU for Db2 Log Analysis Tool v3.4

Apply SMP/E maintenance to new data sets (using the SMP/E APPLY command):

If you apply SMP/E maintenance (using the SMP/E APPLY command) to new data sets rather than to the same data sets, the next time you open the product metadata library, Tools Customizer will return a data set error that indicates that the library name is being used by another product or component.

For example, assume that you name the Db2 High PerformanceUnload for z/OS target metadata libraries to reflect the date of an upgrade or to reflect a specific RSU, as follows:

- To reflect a specific upgrade date (August 2014):
  - DB2TOOL.PTF420.SINZDBRM.D201408
  - DB2TOOL.PTF420.SINZDENU.D201408
  - DB2TOOL.PTF420.SINZLOAD.D201408
- To reflect a specific RSU (RSU 1406):
  - DB2TOOL.PTF420.SINZDBRM.RSU1406
  - DB2TOOL.PTF420.SINZDENU.RSU1406
  - DB2TOOL.PTF420.SINZLOAD.RSU1406

Using either of these naming conventions, the next time you start the Tools Customizer EXEC, it will return a data set error.

To handle this type of SMP/E maintenance processing, you can do either of the following:

- Define aliases (using ALIAS control statements) to reference the appropriate libraries for Tools Customizer processing.
- Copy the SMP/E libraries to a set of runtime libraries that are specifically for Tools Customizer processing.

Define aliases (using ALIAS control statements) to reference the appropriate libraries for Tools Customizer processing:

Defining aliases (using ALIAS control statements) for the SMP/E created new product data set names is likely the best strategy when planning for Tools Customizer.

If you are setting up Tools Customizer for the first time, consider specifying the product library data set names with an indicator that these data sets will be used for Tools Customizer processing. For example, use data set names similar to the following names:

- TCZ.PTF420.SINZDBRM
- TCZ.PTF420.SINZDENU
After applying maintenance using SMP/E, which creates new product library data sets, you should define aliases (using ALIAS control statements) for the new data set names to the data set names that Tools Customizer originally processed. For example, the following maintenance data sets have aliases defined to the original data sets:

- `DB2TOOL.PTF420.SINZDBRM.RSU1406 --> TCZ.PTF420.SINZDBRM`
- `DB2TOOL.PTF420.SINZDENU.RSU1406 --> TCZ.PTF420.SINZDENU`
- `DB2TOOL.PTF420.SINZLOAD.RSU1406 --> TCZ.PTF420.SINZLOAD`

You will need to define an alias (using ALIAS control statements) to each of the following IBM-distributed Tools Customizer data sets:

- `SCCQDENU`
- `SCCQEXEC`
- `SCCQLOAD`
- `SCCQMENU`
- `SCCQPNENU`
- `SCCQSAMP`
- `SCCQTENU`

If you have already set up Tools Customizer and customized the product, you will have to define aliases (using ALIAS control statements) for the newly created data set names to the data sets that were specified when the product was originally customized using Tools Customizer.

After defining the aliases, you should be able to run Tools Customizer successfully.

**Note:** Only define aliases for IBM-distributed SMP/E libraries.

**Restriction:** Do not define an alias for any Tools Customizer created data sets, like the following three data sets on the Tools Customizer Settings panel (CCQPSET):

- Customization library qualifier
- Discover output data set
- Data store data set

Do not define an alias for any data sets that you create on behalf of a product, for example the Db2 High Performance Unload for z/OS parameter library (INFPLIB).

**Copy the SMP/E libraries to a set of runtime libraries that are specifically for Tools Customizer processing:**

If you are setting up Tools Customizer for the first time, consider specifying the product library data set names with an indicator that these data sets will be used for Tools Customizer processing. For example, use data set names similar to the following names:

- `TCZ.R420.SINZDBRM`
- `TCZ.R420.SINZDENU`
- `TCZ.R420.SINZLOAD`
After applying maintenance using SMP/E, which creates new product library data sets, you should copy the new data sets to the data sets that Tools Customizer originally processed. For example, copy the following maintenance data sets to the original data sets:

- DB2TOOL.PTF420.SINZDBRM.RSU1406 → TCZ.R420.SINZDBRM
- DB2TOOL.PTF420.SINZDENU.RSU1406 → TCZ.R420.SINZDENU
- DB2TOOL.PTF420.SINZLOAD.RSU1406 → TCZ.R420.SINZLOAD

You will need to copy each of the following IBM-distributed Tools Customizer data sets:

- SCCQDENU
- SCCQEXEC
- SCCQLOAD
- SCCQMENU
- SCCQPENU
- SCCQSAMP
- SCCQTENU

If you have already set up Tools Customizer and customized the product, you will have to copy the newly created data sets to the data sets that were specified when the product was originally customized using Tools Customizer.

After copying the SMP/E data sets to the Tools Customizer instance libraries, you should be able to run Tools Customizer successfully.

**Note:** Only copy IBM-distributed SMP/E libraries.

**Restriction:** Do not copy any Tools Customizer created data sets, like the following three data sets on the Tools Customizer Settings panel (CCQPSET):

- Customization library qualifier
- Discover output data set
- Data store data set

Do not copy any data sets that you create on behalf of a product, for example the Db2 High Performance Unload for z/OS parameter library (INFPLIB).

**Related tasks:**

- [Modifying Tools Customizer user settings](#)

Before you can customize a product or a component with Tools Customizer, you must review the settings that Tools Customizer uses.

**Related information:**

- [The SMP/E APPLY command](#)

The APPLY command specifies which of the received SYSMODs are to be selected for installation in the target libraries.

- [Alias processing: SMP/E for z/OS Commands](#)

When an element with aliases is processed, both the element and its aliases are updated. SMP/E does not check the aliases against elements maintained in the target zone.
Starting Tools Customizer

Start Tools Customizer by running a REXX EXEC from the ISPF Command Shell panel.

Before you begin

Tools Customizer must be SMP/E installed. You must know the high-level qualifier of where the Tools Customizer libraries reside. The high-level qualifier is considered to be all the segments of the data set name except the lowest-level qualifier, which is SCCQEXEC.

Attention: Ensure that Tools Customizer load libraries are not APF authorized. APF authorizing Tools Customizer libraries results in an abend.

About this task

To run the REXX EXEC, you must either change the placeholder in the EXEC for the high-level qualifier of the Tools Customizer EXEC library or pass the high-level qualifier as a parameter when you run the EXEC. The REXX EXEC is in the CCQTCZ member of the EXEC library.

Procedure

1. Optional: Change the placeholder for the high-level qualifier in the REXX EXEC:
   a. Find the EXEC library data set for Tools Customizer. The name of the data set is high_level_qualifier.SCQCEXEC.
   b. Edit data set member CCQTCZ and replace the <TCZ HLQ> string with the high-level qualifier of the EXEC library data set. For example, if the name of the Tools Customizer EXEC library is CCQTCZ.USABSAND.SCQCEXEC, replace <TCZ HLQ> with CCQTCZ.USABSAND.

You have to change the placeholder for the high-level qualifier only once. When you run the REXX EXEC, you do not have to pass the high-level qualifier as a parameter.

2. Run the REXX EXEC (CCQTCZ):
   a. From the ISPF Primary Option Menu, select option 6. The ISPF Command Shell panel is displayed.
   b. Specify the EX command to run the REXX EXEC. For example, if the Tools Customizer EXEC library is CCQTCZ.USABSAND.SCQCEXEC and you changed the placeholder for the high-level qualifier in the REXX EXEC, specify:
      EX 'CCQTCZ.USABSAND.SCQCEXEC(CCQTCZ)'  
      If you did not change the placeholder for the high-level qualifier in the REXX EXEC, specify:
      EX 'CCQTCZ.USABSAND.SCQCEXEC(CCQTCZ) '"CCQTCZ.USABSAND'  

You can also specify a trace data set name and a user profile when you run the REXX EXEC.

- The default trace data set name is USERID.CCQ.TRACE. To specify a different trace data set name, append the trace data set name to the command. For example, to specify a trace data set name of CCQTCZ.MYTRACE, enter:
  EX 'CCQTCZ.USABSAND.SCQCEXEC(CCQTCZ) '"CCQTCZ.USABSAND, CCQTCZ.MYTRACE'
To specify a user profile other than your own, append the user profile name to the command. For example, to specify a user profile of SHRPROF, enter:

```
CCQTCZ.USABSAND.SCCQEXEC(CCQTCZ)' 'CCQTCZ.USABSAND, ,CCQTCZ.SHRPROF'
```

Tools Customizer will use the settings from the specified profile. This profile will be updated when you exit Tools Customizer, but your own profile will remain unchanged.

## Results

The IBM Customizer Tools for z/OS main menu panel is displayed.

## What to do next

If you are running Tools Customizer for the first time, you must modify the Tools Customizer user settings. If you have already set the Tools Customizer user settings, either customize or recustomize Db2 Change Accumulation Tool.

### Modifying Tools Customizer user settings

Before you can customize Db2 Change Accumulation Tool with Tools Customizer, you must review the settings that Tools Customizer uses. You might have to change the default values to suit your environment. In most cases, you can change the Tools Customizer values at any time. For example, after you have customized Db2 Change Accumulation Tool and are customizing a different product or solution pack, you might have to change the settings.

### Procedure

1. On the IBM Tools Customizer for z/OS main panel (CCQPHME), specify option 0, User settings for Tools Customizer. The Tools Customizer Settings panel (CCQPSET) is displayed, as shown in the following figure:

   ![Figure 1. The Tools Customizer Settings panel (CCQPSET)](image)

   **Note:** An asterisk next to a field indicates that the field is required.
2. Review the values for the following required fields. Use the default value or specify your own value. You must have appropriate READ and WRITE access to the data sets that are specified.

**Customization library qualifier**

The high-level qualifier that is used as the prefix for the customization library. The customization library is a data set in which the generated jobs to customize Db2 Change Accumulation Tool are stored. WRITE access to this qualifier is required.

For each product to be customized, the first value that is specified for the qualifier is always used, even if you change it after you have generated the customization jobs. For example, if you customize a product and then specify a new qualifier for recustomization, although the new qualifier is saved and displayed, the original value is used.

To maintain multiple instances of Tools Customizer, specify a unique customization library qualifier for each instance of Tools Customizer. Data set names that exceed 42 characters must be enclosed in single quotation marks (').

**Volume serial**

The volume name in which the customization library will reside. If you don't specify a volume name, it will be assigned by the system.

**Use DB2 group attach**

Db2 Change Accumulation Tool does not support Db2 group attach names. You must specify NO in the *Use DB2 group attach* field.

**Tools Customizer metadata library**

The name of the data set that contains the metadata that is used to display the Db2 parameters. The parameters that are displayed on the DB2 Parameters panel depend on the parameters that you define and the tasks and steps that you select on the Product Parameters panel for the product that you are customizing. For example, the Db2 parameters that are required, based on the selected tasks and steps, are displayed on the DB2 Parameters panel, and you can edit them. If they are not required, they are not displayed. Read access to this data set is required. Data set names that exceed 42 characters must be enclosed in single quotation marks (').

**Discover output data set**

The name of the data set in which the output from the Db2 Change Accumulation Tool Discover EXEC is stored. Each product has its own Discover EXEC. The Discover EXEC retrieves the product and Db2 parameters from a previously customized product. Write access to this data set is required. Data set names that exceed 42 characters must be enclosed in single quotation marks (').

**Volume serial**

The volume name in which the discover output data set will reside. If you don't specify a volume name, it will be assigned by the system.

**Data store data set**

The name of the data set where Tools Customizer stores information about product and Db2 parameter values. Information about which products are associated with which Db2 entries (Db2 subsystems, Db2 group attach names, and Db2 data sharing members) is also stored in
this data set. Data set names that exceed 42 characters must be enclosed in single quotation marks ('). The specified data store data set can be used with only one invocation of Tools Customizer at a time. Data set names that exceed 42 characters must be enclosed in single quotation marks (').

**Volume serial**
The volume name in which the data store data set will reside. If you don't specify a volume name, it will be assigned by the system.

**User job card settings for customization jobs**
The job card information to be inserted into the generated jobs for customizing a product. The default value is the job statement information from the ISPF Batch Selection panel.

The first line of the job card automatically begins with the following information:

```
// JOB
```

where characters 3 - 10 are reserved by Tools Customizer for the job name and includes a blank space after JOB. This name cannot be edited. Information that you specify on the first line of the job card cannot exceed 57 characters. This character limit includes a continuation character. All other lines of the job card cannot exceed 72 characters.

3. Press End to save and exit. If the Discover output data set and the data store data set that you specified do not exist, Tools Customizer creates them.

**Important:** If the ISPF sessions unexpectedly ends before you exit Tools Customizer, the fields on the Tools Customizer Settings panel (CCQPSET) will be repopulated with default values, and you will be required to review them or specify new values again.

**Results**
The values are saved, and the IBM Tools Customizer for z/OS main menu panel (CCQPHME) is displayed again.

**What to do next**
You are ready to customize or recustomize Db2 Change Accumulation Tool or to change parameter settings.

**Related concepts:**
[Chapter 4, “Customizing Db2 Change Accumulation Tool,” on page 63](#)

Using Tools Customizer to customize Db2 Change Accumulation Tool consists of identifying the product to customize; defining any required Db2 Change Accumulation Tool and Db2 parameters; generating the customization jobs; and submitting the jobs.

**Changing display options**
You can choose which types of information to show on Tools Customizer panels. You can also copy your user profile to another data set so that it can be shared with other users.
About this task

By using the OPTIONS command, you can choose to show or hide the following information on Tools Customizer panels:

- The instructions on all panels
- The Product to Customize section on the Customizer Workplace panel (CCQPWRK)
- The Usage Notes section on the Product Parameters panel (CCQPPRD)

The OPTIONS command also allows you to copy your user profile to another data set so that it can be shared with other users. By sharing a copy of your profile, other uses can customize the same products that you initially customized or started to customize.

Procedure

1. On any Tools Customizer panel, issue the OPTIONS command. The Miscellaneous Options panel (CCQPOPT) is displayed, as shown in the following figure. By default, all panel display options are preselected with a slash (/), which means that they will be displayed.

   ![Panel Display Options panel (CCQPOPT)](image)

   **Figure 2. The Panel Display Options panel (CCQPOPT)**

2. To hide the panel instructions, the Product to Customize section, or the Usage Notes section, remove the slash from the appropriate option or options.

3. To copy your user profile to another data set so that it can be shared with other users:

   a. Type a slash in the **Copy user profile to another data set** field and press Enter.

   b. Specify the fully qualified name of the data set into which you want to copy the current user profile. If the data set name exceeds 42 characters, enclose the name in quotation marks. ALTER or UPDATE authorization to this data set is required.

   c. Optionally specify a volume name in which the user profile data set will reside. If you don’t specify a volume name, it will be assigned by the system.

4. Press Enter to save your changes.

Sorting and filtering columns

You can sort data in Tools Customizer columns by up to two columns. You can also filter the data in columns to display only the data that matches the filter criteria that you specify.
About this task

Sorting and filtering is available only on the Customizer Workplace panel, the Finish Product Customization panel, the Associate DB2 Entry for Product panel, and the Copy Associated DB2 Entry panel.

Procedure

The following instructions describe how to sort and filter data in Tools Customizer columns:

- To sort data in Tools Customizer columns, issue the SORT command.
  On the SORT command, specify up to two column names followed by the sort order: A for ascending or D for descending. If you don't specify a sort order, the default sort order is used, which can change depending on the column type.
  For example, the following command sorts the column entries by SSID in ascending order, and then by GrpAttch in descending order within SSID.
  
  COMMAND ==> SORT SSID A GrpAttch D
  
  You cannot specify the Cmd column on the SORT command.

- To filter data in Tools Customizer columns, overwrite the asterisk (*) under the column names with the filtering arguments for those columns.
  For example, to filter SSIDs that start with DB, overwrite the *\ under the SSID column with DB or DB*. When you press Enter, all the SSIDS that meet that criteria, such as DB01 and DB02, are displayed.
  A filter argument in the form DB* means that only the characters up to the asterisk are considered. When you specify an asterisk in the last nonblank position of the argument, asterisks embedded in the argument are treated as data.
Chapter 4. Customizing Db2 Change Accumulation Tool

Using Tools Customizer to customize Db2 Change Accumulation Tool consists of identifying the product to customize; defining any required Db2 Change Accumulation Tool and Db2 parameters; generating the customization jobs; and submitting the jobs.

Customization roadmaps describe the steps that you must complete to customize Db2 Change Accumulation Tool. Separate roadmaps are provided for the three most common types of customizations.

Use the following table to determine which roadmap corresponds to your environment.

Table 1. Customization roadmaps

<table>
<thead>
<tr>
<th>Environment description</th>
<th>Roadmap</th>
</tr>
</thead>
<tbody>
<tr>
<td>You do not have a customized version of Db2 Change Accumulation Tool, and you need to</td>
<td>“Roadmap: Customizing Db2 Change Accumulation Tool for the first time”</td>
</tr>
<tr>
<td>customize it for the first time.</td>
<td></td>
</tr>
<tr>
<td>You have already customized a version of Db2 Change Accumulation Tool, and you want</td>
<td>“Roadmap: Customizing a new version of Db2 Change Accumulation Tool from a previous customization” on page 64</td>
</tr>
<tr>
<td>to use the same parameter values to customize a different version.</td>
<td></td>
</tr>
<tr>
<td>You have a customized version of Db2 Change Accumulation Tool, but you want to change</td>
<td>“Roadmap: Recustomizing Db2 Change Accumulation Tool” on page 65</td>
</tr>
<tr>
<td>one or more parameter values.</td>
<td></td>
</tr>
</tbody>
</table>

Roadmap: Customizing Db2 Change Accumulation Tool for the first time

This roadmap lists and describes the steps that are required to customize Db2 Change Accumulation Tool for the first time.

If you are customizing a previous version of Db2 Change Accumulation Tool, see “Roadmap: Customizing a new version of Db2 Change Accumulation Tool from a previous customization” on page 64.

Before you complete these steps, ensure that the following prerequisites have been met:

- All of the product customization steps that must be done before Tools Customizer is started are complete.
- Tools Customizer is started.
- The Tools Customizer settings have been reviewed or modified, and saved.

Complete the steps in the following table to customize Db2 Change Accumulation Tool for the first time.
Table 2. Steps for customizing Db2 Change Accumulation Tool for the first time

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Specify the product metadata library for the product that you want to</td>
<td>“Specifying the metadata library for the product to customize” on page 66</td>
</tr>
<tr>
<td></td>
<td>customize. The name of this library is hlq.SGGCDENU.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Create new Db2 entries and associate them with Db2 Change Accumulation Tool.</td>
<td>“Creating and associating Db2 entries” on page 70</td>
</tr>
<tr>
<td>3</td>
<td>Define the required parameters.</td>
<td>“Defining parameters” on page 72</td>
</tr>
<tr>
<td>4</td>
<td>Generate the customization jobs for the product or for the Db2 entries on</td>
<td>“Generating customization jobs” on page 76</td>
</tr>
<tr>
<td></td>
<td>which Db2 Change Accumulation Tool is ready to be customized.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Submit the generated customization jobs.</td>
<td>“Submitting customization jobs” on page 77</td>
</tr>
</tbody>
</table>

The following table lists some of the common administrative tasks that you might need to do during the customization process.

Table 3. Administrative tasks

<table>
<thead>
<tr>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browse the different types of parameters.</td>
<td>“Browsing parameters” on page 79</td>
</tr>
<tr>
<td>Copy an existing Db2 entry to the list of Db2 entries on which Db2 Change</td>
<td>“Copying Db2 entries” on page 80</td>
</tr>
<tr>
<td>Accumulation Tool can be customized.</td>
<td></td>
</tr>
<tr>
<td>Remove one or more Db2 entries from the associated list.</td>
<td>“Removing Db2 entries” on page 81</td>
</tr>
<tr>
<td>Delete one or more Db2 entries from the master list.</td>
<td>“Deleting Db2 entries” on page 82</td>
</tr>
<tr>
<td>Display a list of customization jobs that have been previously generated.</td>
<td>“Displaying customization jobs” on page 82</td>
</tr>
<tr>
<td>Maintain the customization jobs in the customization library.</td>
<td>“Maintaining customization jobs” on page 83</td>
</tr>
</tbody>
</table>

Roadmap: Customizing a new version of Db2 Change Accumulation Tool from a previous customization

This roadmap lists and describes the steps for customizing a new version of Db2 Change Accumulation Tool based on the existing customization values of a previous version of the same product.

Use this roadmap even if the previous version of Db2 Change Accumulation Tool was not customized by using Tools Customizer.

Before you complete these steps, ensure that the following prerequisites have been met:
- All of the product customization steps that must be done before Tools Customizer is started are complete.
- Tools Customizer is started.
The Tools Customizer settings have been reviewed or modified, and saved.

Complete the steps in the following table to customize a new version of Db2 Change Accumulation Tool from a previous customization.

**Table 4. Steps for customizing a new version of Db2 Change Accumulation Tool from a previous customization**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Specify the product metadata library for the product that you want to customize. The name of this library is hlq.SGGCDENU.</td>
<td>“Specifying the metadata library for the product to customize” on page 66</td>
</tr>
<tr>
<td>2</td>
<td>Use the Db2 Change Accumulation Tool Discover EXEC to discover information about the version of Db2 Change Accumulation Tool that you previously customized manually.</td>
<td>“Discovering Db2 Change Accumulation Tool information automatically” on page 68</td>
</tr>
<tr>
<td>3</td>
<td>Define the required parameters.</td>
<td>“Defining parameters” on page 72</td>
</tr>
<tr>
<td>4</td>
<td>Generate the customization jobs for the product or for the Db2 entries on which Db2 Change Accumulation Tool is ready to be customized.</td>
<td>“Generating customization jobs” on page 76</td>
</tr>
<tr>
<td>5</td>
<td>Submit the generated customization jobs.</td>
<td>“Submitting customization jobs” on page 77</td>
</tr>
</tbody>
</table>

The following table lists some of the common administrative tasks that you might need to do during the customization process.

**Table 5. Administrative tasks**

<table>
<thead>
<tr>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browse the different types of parameters.</td>
<td>“Browsing parameters” on page 79</td>
</tr>
<tr>
<td>Copy an existing Db2 entry to the list of Db2 entries on which Db2 Change Accumulation Tool can be customized.</td>
<td>“Copying Db2 entries” on page 80</td>
</tr>
<tr>
<td>Remove one or more Db2 entries from the associated list.</td>
<td>“Removing Db2 entries” on page 81</td>
</tr>
<tr>
<td>Delete one or more Db2 entries from the master list.</td>
<td>“Deleting Db2 entries” on page 82</td>
</tr>
<tr>
<td>Display a list of customization jobs that have been previously generated.</td>
<td>“Displaying customization jobs” on page 82</td>
</tr>
<tr>
<td>Maintain the customization jobs in the customization library.</td>
<td>“Maintaining customization jobs” on page 83</td>
</tr>
</tbody>
</table>

**Roadmap: Recustomizing Db2 Change Accumulation Tool**

This roadmap lists and describes the steps to change parameter values and regenerate customization jobs for Db2 Change Accumulation Tool after you have customized it for the first time.

The new customization jobs will replace the customization jobs that were previously generated and stored in the customization library. Part of the recustomization process includes selecting or deselecting optional tasks or steps,
changing the definitions of parameters that have already been defined, or both. Use the method in this roadmap instead of deleting customization jobs from the customization library.

Before you complete these steps, ensure that the following prerequisites have been met:

- All of the product customization steps that must be done before Tools Customizer is started are complete.
- Tools Customizer is started.

Complete the steps in the following table to recustomize Db2 Change Accumulation Tool.

### Table 6. Required steps for recustomizing Db2 Change Accumulation Tool

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Specify the product metadata library for the product that you want to recustomize. The name of this library is hlq.SGGCDENU.</td>
<td>“Specifying the metadata library for the product to customize”</td>
</tr>
<tr>
<td>2</td>
<td>Edit the specific tasks, steps, or parameters that need to be changed.</td>
<td>“Defining Db2 Change Accumulation Tool parameters” on page 72, “Defining Db2 parameters” on page 74</td>
</tr>
<tr>
<td>3</td>
<td>Generate the customization jobs for the product or for the Db2 entries on which Db2 Change Accumulation Tool is ready to be customized.</td>
<td>“Generating customization jobs” on page 76</td>
</tr>
<tr>
<td>4</td>
<td>Submit the new generated customization jobs.</td>
<td>“Submitting customization jobs” on page 77</td>
</tr>
</tbody>
</table>

The following table lists some of the common administrative tasks that you might need to do during the customization process.

### Table 7. Administrative tasks

<table>
<thead>
<tr>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Browse the different types of parameters.</td>
<td>“Browsing parameters” on page 79</td>
</tr>
<tr>
<td>Copy an existing Db2 entry to the list of Db2 entries on which Db2 Change Accumulation Tool can be customized.</td>
<td>“Copying Db2 entries” on page 80</td>
</tr>
<tr>
<td>Remove one or more Db2 entries from the associated list.</td>
<td>“Removing Db2 entries” on page 81</td>
</tr>
<tr>
<td>Delete one or more Db2 entries from the master list.</td>
<td>“Deleting Db2 entries” on page 82</td>
</tr>
<tr>
<td>Display a list of customization jobs that have been previously generated.</td>
<td>“Displaying customization jobs” on page 82</td>
</tr>
<tr>
<td>Maintain the customization jobs in the customization library.</td>
<td>“Maintaining customization jobs” on page 83</td>
</tr>
</tbody>
</table>

### Specifying the metadata library for the product to customize

You must specify a metadata library for the product that you want to customize.
About this task

The product metadata library contains the information that determines which tasks, steps, and parameters are required to customize Db2 Change Accumulation Tool. This information controls what is displayed on the Product Parameters panel and the DB2 Parameters panel.

After Db2 Change Accumulation Tool has been SMP/E installed, the default name of the product metadata library is *high_level_qualifier.SGGCDENU*, where *high_level_qualifier* is all of the segments of the data set name except the lowest-level qualifier.

Procedure

1. Specify option 1 on the Tools Customizer for z/OS panel. The Specify the Product or Pack Metadata Library panel is displayed. This panel contains a list of the product metadata libraries that you specified most recently. If you are using Tools Customizer for the first time, this list is empty, as shown in the following figure:

   ![Figure 3. The Specify the Metadata Library panel](image)

2. Use one of the following methods to specify the product metadata library:
   - Type the name of a fully qualified partitioned data set (PDS) or an extended partitioned data set (PDSE) in the **Product or pack metadata library** field. Double quotation marks (") cannot be used around the name. Single quotation marks (') can be used but are not required. If you are customizing Db2 Change Accumulation Tool for the first time, you must use this method.
   - Place the cursor in any column of the Recent Metadata Libraries list and press Enter to populate **Product or pack metadata library** field. Press Enter again to select product or pack for customization.

Results

If you are customizing Db2 Change Accumulation Tool for the first time, the Run Discover EXEC panel is displayed. Otherwise, the Customizer Workplace panel is displayed.

What to do next

- Complete the steps that correspond to your environment:

  **Customizing Db2 Change Accumulation Tool for the first time**
  Do not run the Db2 Change Accumulation Tool Discover EXEC. Press End. The Customizer Workplace panel is displayed. If your environment...
Customizing Db2 Change Accumulation Tool from a previous or current customization

Press Enter to run the Db2 Change Accumulation Tool Discover EXEC. The Discover Customized Product Information panel is displayed. Specify the required information for running the EXEC.

Discovering Db2 Change Accumulation Tool information automatically

You can use the Db2 Change Accumulation Tool Discover EXEC to discover information from a previous or current customization of Db2 Change Accumulation Tool.

About this task

Tip: Using the Db2 Change Accumulation Tool Discover EXEC to discover information from a previous or current customization saves time and reduces errors that can occur when parameters are specified manually.

Db2 Change Accumulation Tool provides the Discover EXEC that you will run. Therefore, the information that can be discovered depends on Db2 Change Accumulation Tool.

Parameter values that are discovered and parameter values that are specified manually are saved in the data store. If parameter values for the product that you want to customize exist in the data store, Tools Customizer issues a warning before existing values are replaced.

Procedure

1. On the Customizer Workplace panel, issue the DISCOVER command. If you chose to run the Db2 Change Accumulation Tool Discover EXEC on the pop-up panel after you specified the product to customize, skip this step.

   Tip: You can run any Tools Customizer primary command by using either of the following methods:
   • Place the cursor on the name of the primary command, and press Enter.
   • Type the primary command name in the command line, and press Enter.

   The Discover Customized Product Information panel is displayed, as shown in the following figure:
2. Either accept the default values for the following input fields that Tools Customizer generates, or replace the default values with your own values:

**Discover EXEC library**
The fully qualified data set name that contains the Db2 Change Accumulation Tool Discover EXEC.

**Discover EXEC name**
The name of the Db2 Change Accumulation Tool Discover EXEC.

**Discover output data set**
The fully qualified data set where output from the Db2 Change Accumulation Tool Discover EXEC is stored.

3. Either accept or change the default values in the **Information for Discover EXEC** fields. These fields are generated by Db2 Change Accumulation Tool. They show the information that is required to run the Db2 Change Accumulation Tool Discover EXEC.

4. Issue the **RUN** command to run the Db2 Change Accumulation Tool Discover EXEC. Alternatively, save your information without running the Db2 Change Accumulation Tool Discover EXEC by issuing the **SAVE** command. If you issue the **RUN** command to run the Db2 Change Accumulation Tool Discover EXEC, the parameter information is discovered for Db2 Change Accumulation Tool, and the Customizer Workplace panel is displayed.

**Results**

The discovered parameter values for Db2 Change Accumulation Tool replace any existing values.

**What to do next**

The next step depends on your environment:

- If Db2 entries were not discovered, or if you need to customize Db2 Change Accumulation Tool on new Db2 entries, create and associate the entries.
• If Db2 entries were discovered and you want to customize Db2 Change Accumulation Tool on only these entries, define the parameters.

Related tasks:

"Creating and associating Db2 entries"
You can create new Db2 entries and associate them with Db2 Change Accumulation Tool.

"Defining parameters“ on page 72
To customize Db2 Change Accumulation Tool, you must define Db2 Change Accumulation Tool parameters and Db2 parameters, if your customization requires Db2 entries.

Creating and associating Db2 entries

You can create new Db2 entries and associate them with Db2 Change Accumulation Tool.

About this task

The list of associated Db2 entries is on the Customizer Workplace panel.

Procedure

1. Issue the ASSOCIATE command on the Customizer Workplace panel. The Associate DB2 Entry for Product panel is displayed, as shown in the following figure:

```
CCQPDBD  Associate DB2 Entry for Product  16:36:42
Command ===>  Scroll ===> PAGE

Select any of the following DB2 entries to add them to the Customizer Workplace panel. You use the Customizer Workplace panel to choose the DB2 subsystems, data sharing members, and group attach names on which to customize the product.

Commands:  CREATE - Create new DB2 entries

DB2 Entries
Line commands:  A - Associate  C - Copy  D - Delete
Cmd  SSID  GrpAttach
*  *

-------------------------------  End of DB2 entries  -------------------------------
```

Figure 5. The Associate DB2 Entry for Product panel

2. Create Db2 entries. If you need to associate Db2 entries that are already in the master list, skip this step and go to step 3.
   a. Issue the CREATE command to create one Db2 entry, or issue CREATE nn to create multiple Db2 entries, where nn is the number of new entries to be created. The Create DB2 Entries panel is displayed, as shown in the following figure:
In the appropriate columns, specify a Db2 subsystem ID or Db2 data sharing member name for the Db2 entry that you want to create, and press Enter. Valid values are 1 - 4 characters. You can use symbolic characters. You cannot use blanks.

**Tips:**
- To insert multiple Db2 entries, specify the Innl line command, where nn is the number of entries to be inserted.
- You will define specific parameters for these new Db2 entries, such as parameters that define a subsystem as primary, on the DB2 Parameters panel. This panel is displayed after you select these new Db2 entries and issue the line command to generate the jobs, after you issue the primary command to generate the jobs for all associated Db2 entries, or when you manually edit the Db2 parameters.

The Associate DB2 Entry for Product panel is displayed, and the new Db2 entry is displayed in the master list, as shown in the following figure:

```
CCQPCDB  Create DB2 Entries  Row 1 of 1
Command ===>  Scroll ===> PAGE

Specify the SSID, the group attach name, or both in the appropriate columns for each new DB2 entry and press Enter. To create additional entries, issue the Innl line command, where nn is the number of entries to be inserted, and press Enter. To cancel, press End.

New DB2 Entries
Line commands: I - Insert into list  R - Remove from list
Cmd  SSID  GrpAttch  Message
---------------------------------

End of DB2 entries

Figure 6. The Create DB2 Entries panel
```

b. In the appropriate columns, specify a Db2 subsystem ID or Db2 data sharing member name for the Db2 entry that you want to create, and press Enter. Valid values are 1 - 4 characters. You can use symbolic characters. You cannot use blanks.

**Tips:**
- To insert multiple Db2 entries, specify the Innl line command, where nn is the number of Db2 entries to be inserted.
- You will define specific parameters for these new Db2 entries, such as parameters that define a subsystem as primary, on the DB2 Parameters panel. This panel is displayed after you select these new Db2 entries and issue the line command to generate the jobs, after you issue the primary command to generate the jobs for all associated Db2 entries, or when you manually edit the Db2 parameters.

The Associate DB2 Entry for Product panel is displayed, and the new Db2 entry is displayed in the master list, as shown in the following figure:

```
CCQPDAD  Associate DB2 Entry for Product  Row 1 to 3 of 3
Command ===>  Scroll ===> CSR

Select any of the following DB2 entries to add them to the Customizer Workplace panel. You use the Customizer Workplace panel to choose the DB2 subsystems, data sharing members, and group attach names on which to customize the product.

Commands:  CREATE - Create new DB2 entries

DB2 Entries
Line commands: A - Associate  C - Copy  D - Delete
Cmd  SSID  GrpAttch
*   *   
DBAA --
DBAB --
DBAC --
---------------------------------

End of DB2 entries

Figure 7. Associate DB2 Entry for Product panel
```

c. Repeat steps b and c for each Db2 entry that you want to create.

d. When you have created all the Db2 entries, associate them with Db2 Change Accumulation Tool, or press End to display the Customizer Workplace panel.

3. Associate Db2 entries.

a. Specify A against one or more Db2 entries in the master list, and press Enter to associate them with Db2 Change Accumulation Tool.
Results

The Customizer Workplace panel is displayed with the associated Db2 entries displayed in the associated list.

What to do next

Define the parameters.

Related concepts:

“Tools Customizer terminology” on page 554

Tools Customizer uses several unique terms that you should be familiar with before you begin to use Tools Customizer.

Defining parameters

To customize Db2 Change Accumulation Tool, you must define Db2 Change Accumulation Tool parameters and Db2 parameters, if your customization requires Db2 entries.

About this task

You must define the Db2 Change Accumulation Tool parameters first for the following reasons:

- If you ran the Db2 Change Accumulation Tool Discover EXEC, you must review the values that were discovered.
- If you select optional tasks and steps on the Product Parameters panel that affect the Db2 entry on which you will customize Db2 Change Accumulation Tool, additional parameters might be displayed on the DB2 Parameters panel.
- If other steps must be completed in a specific sequence, customization notes on the Product Parameters panel will display the correct sequence.

Defining Db2 Change Accumulation Tool parameters

Db2 Change Accumulation Tool parameters are specific to Db2 Change Accumulation Tool.

About this task

If you ran the Db2 Change Accumulation Tool Discover EXEC, you must review the parameters that were discovered.

Procedure

1. Specify E next to the Product parameters field on the Customizer Workplace panel, and press Enter. The Product Parameters panel is displayed, as shown in the following figure. If other steps must be completed in a specific sequence before you define the Db2 Change Accumulation Tool parameters, a note labeled Important will display the correct sequence on this panel.
Complete the following tasks to customize the products. The required tasks, required steps within a required or selected task, and required parameters are preceded by an asterisk (*). Ensure that values are specified for the required parameters. Press End to save and exit.

Commands: SAVE VERIFYOFF
Line Commands: / - Select

Product to Customize
Product metadata library: GGC.GGC310.SGCDENU LPAR...: RS25
Product name: IBM DB2 Change Accumulation Version: 3.1.0

Product customization library: RSQA.GGC310.HMP.$RS25$.GGC310
Configuration
ID: GGC
Description: IBM DB2 Change Accumulation T

Required parameters
Startup CLIST Library: RSQA.GGC310.HMP.CLIST
GGC Load Library: GGC.HLD0310.LOADLIB Add...
GGC DBRM Library: GGC.HLD0310.DBRMLIB
GGC ISPF panel Library: GGC.HLD0310.ISPPLIB Add...
GGC ISPF skeleton Library: GGC.HLD0310.ISPSLIB Add...
FEC common code load Library: FEC.WRK0130.LOADLIB Add...
Control file: RTEST.GGC310.DB2CNTL
Owner of the Change Accumulation packages: GGCUSER

Figure 8. The Product Parameters panel

You can use the following primary commands on this panel:

SAVE Saves the specified product or component parameter values.

VERIFY / VERIFYOFF

Use the VERIFY and VERIFYOFF commands to turn on and off parameter verification of product or component parameters. Before you can generate customization jobs, you must verify that all required parameters are set to a valid value. The product or component parameter status of Verify Values on the Customize Workplace panel indicates that the values have not been verified.

Enter these commands either by typing them in the command field and pressing Enter or by positioning the cursor on the command and pressing PF3. When VERIFY is active, VERIFYOFF is displayed so that you can toggle between the two states. By default, verification is turned on when you display the DB2 Parameters panel, and the verification state is reset to VERIFY every time you exit the Customization Workplace panel by pressing PF3.

Turning verification off is useful when you need to exit the panel before you have entered all of the required parameters, but you want to save the parameters that you have specified. When you disable verification, it is disabled only for the Product or Component Parameters Values panel.

2. Select any required tasks and steps, and specify values for any parameters. After you select a task or step with a slash (/), put the cursor in the selected field and press Enter. If tasks, steps, and parameters are required, they are preselected with a slash (/). Otherwise, they are not preselected.

All of the required parameters have default values, which you can either accept or change.
Tips:

- In the command line, specify the KEYS command, and map EXPAND to one of the function keys.
- For a detailed description of all input fields, put the cursor in the field, and press F1 or the key that is mapped to Help.
- The following elements apply to specific fields:
  - **Add** is displayed when parameters can have multiple values but currently have only one value. To specify multiple values in these fields, place the cursor on **Add**, and press Enter. Use the displayed panel to add or delete additional values.
  - **List** is displayed when the complete list of valid values for the fields is too long to be displayed on the panel. To see the complete list of values, place the cursor on **List**, and press F1 or the key that is mapped to Help.
  - **More** is displayed when input fields contains multiple values. To see all of the values in the field, place the cursor on **More**, and press Enter.

3. Optional: Select other tasks and steps with a slash (/) and press Enter to activate the input fields. Either accept or change the default values that are displayed.

4. Press End to save your changes and exit, or issue the SAVE command to save your changes and stay on the Product Parameters panel.

Results

The Customizer Workplace panel is displayed, and the status of the product parameters is Ready to Customize.

What to do next

If the status of other parameters on the Customizer Workplace panel is Incomplete, Verify Values, or Discovered, edit these parameters.

Related tasks:

"Defining Db2 parameters"

Db2 parameters are parameters for a Db2 entry.

Defining Db2 parameters

Db2 parameters are parameters for a Db2 entry.

About this task

If you did not run the Db2 Change Accumulation Tool Discover EXEC, you must create and associate one or more Db2 entries before you can define the Db2 parameters. For more information, see “Creating and associating Db2 entries” on page 70.

Procedure

1. Specify £ next to one or more Db2 entries in the associated list, which is in the Associated Db2 Entries and Parameter Status section on the Customizer Workplace panel, and press Enter. The DB2 Parameters panel is displayed, as shown in the following figure:
### The DB2 Parameters Panel

You can use the following primary commands on this panel:

**SAVE**  Saves the specified product or component parameter values.

**VERIFY / VERIFYOFF**

Use the VERIFY and VERIFYOFF commands to turn on and off parameter verification of Db2 parameters. Before you can generate customization jobs, you must verify that all required parameters are set to a valid value. The Db2 parameter status of Verify Values on the Customize Workplace panel indicates that the values have not been verified.

Enter these commands either by typing them in the command field and pressing Enter or by positioning the cursor on the command and pressing Enter. When VERIFY is active, VERIFYOFF is displayed so that you can toggle between the two states. By default, verification is turned on when you display the DB2 Parameters panel, and the verification state is reset to VERIFY every time you exit the Customization Workplace panel by pressing PF3.
Turning verification off is useful when you need to exit the panel before you have entered all of the required parameters, but you want to save the parameters that you have specified. When you disable verification, it is disabled only for the DB2 Parameters Values panel.

2. Specify values for all parameters that are displayed.

Tips:
- In the command line, specify the KEYS command, and map EXPAND to one of the function keys.
- For a detailed description of all input fields, put the cursor in the field, and press F1 or the key that is mapped to Help.
- The following elements apply to specific fields:
  - Add is displayed when parameters can have multiple values but currently have only one value. To specify multiple values in these fields, place the cursor on Add, and press Enter. Use the displayed panel to add or delete additional values.
  - List is displayed when the complete list of valid values for the fields is too long to be displayed on the panel. To see the complete list of values, place the cursor on List, and press F1 or the key that is mapped to Help.
  - More is displayed when input fields contain multiple values. To see all of the values in the field, place the cursor on More, and press Enter.

Many parameters have default values, which you can either accept or change.

3. Press End to save your changes and exit, or issue the SAVE command to save your changes and stay on the same panel.

Results

The status of the Db2 entries that you selected on the Customizer Workplace panel is Ready to Customize.

What to do next

If the status of other parameters on the Customizer Workplace panel is Incomplete, Verify Values, or Discovered, edit these parameters.

Related tasks:
- "Defining Db2 Change Accumulation Tool parameters" on page 72

Db2 Change Accumulation Tool parameters are specific to Db2 Change Accumulation Tool.

Generating customization jobs

To generate customization jobs for Db2 Change Accumulation Tool and any associated Db2 entries, issue the GENERATEALL command, or select one or more Db2 entries on which to customize Db2 Change Accumulation Tool.

Procedure

Generate the customization jobs by using one of the following methods.
- If you want to generate customization jobs at the product level and for any associated Db2 entries, issue the GENERATEALL command, and press Enter.
• If you want to generate customization jobs for specific Db2 entries, select the Db2 entries by specifying the 6 line command against them, and press Enter. The available Db2 entries are in the associated list in the Associated Db2 Entries and Parameter Status section.

**Important:** Regenerating customization jobs will replace any existing jobs, including jobs that you might have manually modified after they were generated.

**Results**

If the status is Incomplete or Discovered for Db2 Change Accumulation Tool parameters or Db2 parameters, Tools Customizer automatically starts an editing session for the types of parameters that are required. The session continues until the panel for each type of required parameter has been displayed.

**What to do next**

If an automatic editing session is started, accept the displayed parameter values or define values for the required types of parameters, select optional parameters, tasks, or steps for your environment, and save the parameter values. Otherwise, the customization jobs are generated, and you can submit them.

**Tip:** If the customization jobs are generated, but you are not ready to submit them, you can see them later by issuing the JOBLIST command on the Customizer Workplace panel. The JOBLIST command displays the Finish Product Customization panel, which you can use to submit the jobs.

---

**Submitting customization jobs**

Submit the customization jobs to customize Db2 Change Accumulation Tool.

**Before you begin**

Ensure that the correct jobs are generated.

**About this task**

The following figure shows part of the Finish Product Customization panel. The table on this panel shows the customization jobs that are generated by Tools Customizer. They are grouped by job sequence number.
The member-naming conventions depend on whether the customization jobs are for Db2 entries, and LPAR, or the product.

The New filed indicates if the job member is newly created/updated. It is either YES or NO. YES indicates the job member is newly created or updated, and it needs to be submitted for customization. NO indicates the job member is not newly created/updated, it does not need to be submitted for customization.

Customization jobs for Db2 entries

The members use the following naming convention:

\(<job\_sequence\_number>\_<job\_ID>\_<DB2\_entry\_ID>\)

where

**job_sequence_number**

Two alphanumeric characters, A0 - Z9, that Tools Customizer assigns to a customization job. The number for the first template in the sequence is A0, the number for the second template is A1, and so on.

**job_ID**

Characters 4 - 7 of the template name, if the template name contains five or more characters. Otherwise, only character 4 is used. Db2 Change Accumulation Tool assigns the template name.

**DB2_entry_ID**

Two alphanumeric characters, AA - 99, that Tools Customizer assigns to a Db2 entry.

For example, the XYZBNDDB2_entry_ID_1 and XYZBNDDB2_entry_ID_2 jobs are generated from the XYZBNDGR template, and the XYZ4DB2_entry_ID_1 and XYZ4DB2_entry_ID_2 jobs are generated from the XYZ4 template. If the jobs are generated on two Db2 entries, the following member names are listed sequentially: A0BNDGAA, A0BNDGAB, A14AA, A14AB.
Customization jobs for the product

The members use the following naming convention:

\(<\text{job\_sequence\_number}>\text{job\_ID}\>

where

\textit{job\_sequence\_number}

Two alphanumeric characters, A0 - Z9, that Tools Customizer assigns to a customization job. The number for the first template in the sequence is A0, the number for the second template is A1, and so on.

\textit{job\_ID}

Characters 4 - 8 of the template name, if the template name contains five or more characters. Otherwise, only character 4 is used. For example, for the XYZMAKE template, the job ID is MAKE. For the XYZM template, the job ID is M. Db2 Change Accumulation Tool assigns the template name, and it is displayed in the Template column.

For example, the XYZBNDGR job is generated from the XYZBNDGR template, and the XYZ4 job is generated from the XYZ4 template. The following member names are listed sequentially: A0BNDGR, A14.

Procedure

1. Submit the generated customization jobs by following the process that you use in your environment or by using the following method:
   a. Specify B or E against a customization job or the product customization library, and press Enter. An ISPF browsing or editing session is started.
   b. Browse the customization job or each member in the library to ensure that the information is correct.
   c. Run the TSO SUBMIT command.
2. Press End.

Results

Db2 Change Accumulation Tool is customized, and the Customizer Workplace panel is displayed. The status is Customized for the Db2 entries on which Db2 Change Accumulation Tool was customized.

What to do next

You can generate more customization jobs for other Db2 entries, view a list of customization jobs that you previously generated, or recustomize Db2 Change Accumulation Tool.

Browsing parameters

You can browse the product or component parameters and the Db2 parameters in read-only mode.

Procedure

1. On the Customizer Workplace panel, specify B next to the \textit{Product parameters} field or the Db2 entry that you want to browse, and press Enter. The panel that corresponds to your specification is displayed.
2. Press End to exit.

Copying Db2 entries

You can copy associated and not associated Db2 entries to other Db2 entries or to new Db2 entries.

About this task

Go to the step that applies to your environment:

- To copy an associated Db2 entry to another associated Db2 entry or to an entry that is not associated, go to step 1.
- To copy an associated Db2 entry to a new entry, go to step 2.
- To copy a Db2 entry that is not associated to a new entry, go to step 3.

Procedure

1. To copy an associated Db2 entry to another associated Db2 entry or to an entry that is not associated, complete the following steps:
   a. Specify C against a Db2 entry in the associated list of Db2 entries on the Customizer Workplace panel, and press Enter. The Copy Associated DB2 Entry panel is displayed.
   b. Select one or more Db2 entries to which information will be copied by specifying the / line command, and press Enter. The Associated column indicates whether the Db2 entry is associated.
   
   Tip: To copy information into all of the Db2 Entries in the list, issue the SELECTALL primary command, and press Enter.
   The Copy DB2 Parameter Values panel is displayed.
   
   c. Specify an option for copying common and product-specific Db2 parameter values. Common Db2 parameter values apply to all Db2 entries for all products that you have customized by using Tools Customizer. Product-specific Db2 parameter values apply only to the product that you are currently customizing.
      • To copy the common Db2 parameter values and the product-specific Db2 parameter values, specify option 1, and press Enter.
      • To copy only the product-specified Db2 parameter values, specify option 2, and press Enter.

   In some cases, the Db2 parameter values might contain the Db2 subsystem ID as an isolated qualifier in data set names. For example, in the DB01.DB01TEST.DB01.SANLOAD, data set name, the DB01 subsystem ID is isolated in the first and third qualifiers but is not isolated in the second qualifier. When the Db2 subsystem ID is an isolated qualifier in data set names, the Change DB2 Subsystem ID in DB2 Parameter Values panel is displayed. Otherwise, the Customizer Workplace panel is displayed.
   
   d. If the Change DB2 Subsystem ID in DB2 Parameter Values panel is displayed, specify an option for changing the subsystem IDs. Otherwise, skip this step.
      • To change the subsystem ID in isolated qualifiers in data set names, specify option 1, and press Enter.
      • To use the same subsystem ID in all values, specify option 2, and press Enter.
The Customizer Workplace panel is displayed with the copied associated entry in the list.

2. To copy an associated Db2 entry to a new entry, complete the following steps:
   a. Specify c against a Db2 entry in the associated list of Db2 entries on the Customizer Workplace panel, and press Enter. The Copy Associated DB2 Entry panel is displayed.
   b. Issue the CREATE command. The Create DB2 Entries panel is displayed.
   c. Specify the SSID, the group attach name, or both in the appropriate columns for each new Db2 entry, and press Enter.

   **Tip:** To add rows for additional entries, specify the `inn` line command, where `inn` is the number of entries to be created, and press Enter. The Copy Associated DB2 Entry panel is displayed with the new entries in the list. The new entries are preselected.
   d. Press Enter to complete the copy process. The Customizer Workplace panel is displayed with the copied entries in the list.

3. To copy a Db2 entry that is not associated to a new entry, complete the following steps:
   a. Issue the ASSOCIATE command on the Customizer Workplace panel. The Associate DB2 Entry for Product panel is displayed.
   b. Select one or more Db2 entries by specifying the `/ line command, and press Enter. The Copy a DB2 Entry panel is displayed.
   c. Specify the SSID, the group attach name, or both in the appropriate columns for the new Db2 entry, and press Enter. The Associate DB2 Entry for product panel is displayed with the copied entry in the list.
   d. If you want to associate the copied entry, specify A against it, and press Enter. The Customizer Workplace panel is displayed with the copied entries in the list.

**What to do next**

Edit any of the parameters or generate the jobs.

**Related concepts:**

“Tools Customizer terminology” on page 554

Tools Customizer uses several unique terms that you should be familiar with before you begin to use Tools Customizer.

---

**Removing Db2 entries**

You can remove Db2 entries from the associated list.

**About this task**

When you remove Db2 entries from the associated list, any customization jobs for the entries are removed from the list of jobs on the Finish Product Customization panel, and they are deleted.

**Procedure**

On the Customizer Workplace panel, specify R next to one or more Db2 entries that you want to remove, and press Enter. The selected Db2 entries are removed from the associated list and added to the master list on the Associate DB2 Entry for Product panel, and the customization jobs are deleted.
Deleting Db2 entries

You can delete Db2 entries from the master list.

About this task

When you delete Db2 entries from the master list, any associations and all customization jobs for products that are customized on the entries will be deleted.

Procedure

1. On the Customizer Workplace panel, issue the ASOCIATE command. The Associate DB2 Entry for Product panel is displayed.
2. Specify D next to one or more Db2 entries that you want to delete, and press Enter. If the entry is associated with any products, the Delete Associated DB2 Entry panel for the first Db2 entry that you selected is displayed. Otherwise, the Delete DB2 Entry panel is displayed.
3. To delete the Db2 entries, press Enter. If the Db2 entries are associated with any products in the table on the Delete Associated DB2 Entry panel, any associations and all customization jobs for the products that are customized on it are deleted. Otherwise, only the Db2 entries are deleted. If you selected multiple Db2 entries to delete, the next Db2 entry that you selected is displayed on either the Delete Associated DB2 Entry panel or the Delete DB2 Entry panel. Otherwise, the Associate DB2 Entry for Product panel is displayed.

What to do next

If you selected multiple Db2 entries to delete, repeat step 3 until all selected entries are deleted. Then, continue the customization process.

Displaying customization jobs

You can view a list of the members that contain the customization jobs before or after you submit the jobs.

About this task

The customization jobs that you generate for one Db2 entry are also displayed when you customize Db2 Change Accumulation Tool for another Db2 entry later.

Procedure

On the Customizer Workplace panel, issue the JOBLIST command. The Finish Product Customization panel is displayed. This panel shows the list of jobs that you have previously generated. They are grouped by job sequence number. Use this panel to browse or edit the generated jobs before you submit them.
Maintaining customization jobs

Instead of deleting customization jobs outside of Tools Customizer, you can maintain the correct jobs for Db2 Change Accumulation Tool by completing the steps for recustomization.

About this task

You cannot delete or rename customization jobs from the customization library by starting an ISPF browse or edit session from the Finish Product Customization panel. If you try to delete customization jobs by using this method, the CCQC034S message is issued. If you try to rename customization jobs, the CCQC035S message is issued.

If you delete or rename customization jobs from the customization library by using ISPF outside of Tools Customizer, Tools Customizer will not recognize that the jobs were deleted, and the Finish Product Customization panel will still display them. If you browse or edit jobs that were deleted from the library outside of Tools Customizer, the CCQC027S message is issued.

Procedure

To maintain the correct customization jobs in the customization library, complete the steps for recustomization.

Using Tools Customizer in a multiple-LPAR environment

Currently, Tools Customizer supports only the local LPAR; however, you can propagate customizations to additional LPARs by using either of two different methods.

About this task

In a multiple-LPAR environment, Tools Customizer identifies the LPAR to which you are logged on. Tools Customizer uses this LPAR name for several different parameter settings, one of which is the data store. When you use the data store during the customization of Db2 Change Accumulation Tool that is on a different LPAR, Tools Customizer issues message CCQD586S, which indicates that the product has already been customized based on values from the data store on the first LPAR. This message is issued to prevent the data store from becoming corrupted.

This behavior occurs in the following conditions:

• Tools Customizer is installed on a DASD device that is shared by multiple LPARs.
• After a product is customized by using Tools Customizer, the data store is copied to another LPAR.

Procedure

To customize products running against a Db2 subsystem on an LPAR where Tools Customizer is not installed, consider using one of the following methods:

Install one instance of Tools Customizer on one LPAR

If you intend to reuse the customization values for all the instances of your products on all LPARs, use this method.
1. Associate all the Db2 entries in this one instance of Tools Customizer. The LPARs on which the Db2 subsystems reside do not matter.
2. Generate the customization jobs for each Db2 entry.
3. Copy the generated customization jobs to the LPAR to run against the specific Db2 entries. Some LPAR-specific edits might be required. You can make these edits in the customized jobs that you copied. Note that this situation is one of the few situations where you might need to make manual changes to the jobs that are customized by Tools Customizer.

**Install one instance of Tools Customizer on each LPAR**

If you do not want to reuse previous customization values and you want to start new customizations, use this method.

**Important:** This method will likely not be the preferred approach for most organizations because most organizations tend to use similar or identical customization values for each product instance on all LPARs.
Chapter 5. Getting started with Db2 Change Accumulation Tool

These topics provide information about getting started with Db2 Change Accumulation Tool.

Topics:

- "Starting Db2 Change Accumulation Tool"
- "Inactive options" on page 86
- "Specifying user settings" on page 86

Starting Db2 Change Accumulation Tool

Start Db2 Change Accumulation Tool by running the GGC CLIST. When the CLIST is executed, the Db2 Change Accumulation Tool main menu is displayed.

![Figure 11. IBM DB2 Change Accumulation Tool main menu]

When you start Db2 Change Accumulation Tool for the first time, select Option 0 (User Settings) to verify your settings.

These options are available:

User Settings (Option 0)

Specify Db2 subsystem information.

Work with Object Profiles (Option 1)

Work with object profiles. Object profiles specify entire databases, table spaces, or table space partitions to include in or exclude from a Db2 Change Accumulation Tool job.

Work with Utility Profiles (Option 2)

Work with utility profiles. Utility profiles specify the options that determine the Db2 Change Accumulation Tool syntax produced when you build your job. For example, utility profiles enable you to define the mode in which Db2 Change Accumulation Tool is run, such as mini log, image copy, or recovery.

Work with Job Profiles (Option 3)

Work with job profiles. Job profiles specify job options and combine object
files and utility profiles together so you can customize, save, and generate Db2 Change Accumulation Tool JCL for your site.

Perform Mini Log Control Table Cleanup (Option 4)
Delete rows from the mini log control table based on the criteria such as database, table space, partition, date, and age. Maintain the mini log control table to ensure it remains an acceptable size and to reduce the risk of losing valuable mini log information.

Create XML Object Sequence Number Update Job Template (Option 5)
Specify a data set and member to which the template job is generated.

Exit (Option X)
Exit Db2 Change Accumulation Tool.

DB2 Subsystem ID
The Db2 subsystem ID of the Db2 subsystem that you have configured for use with Db2 Change Accumulation Tool.

Current® SQLID
The current SQLID.

User Your user ID.

Inactive options
Db2 Change Accumulation Tool shares a common code base for object and job profile configuration with other tools such as Db2 Automation Tool. Consequently, some of the options that are available in the setup, object profile, and job profile configuration panels are used by other products but are not applicable to or supported by Db2 Change Accumulation Tool.

If you create an object or job profile in another tool (such as Db2 Automation Tool) and the profile includes options that are inactive in Db2 Change Accumulation Tool, those options are ignored by Db2 Change Accumulation Tool. Any inactive options that are specified using Db2 Change Accumulation Tool are ignored during Db2 Change Accumulation Tool processing.

Table spaces and indexes are the only object types supported by Db2 Change Accumulation Tool. Db2 Change Accumulation Tool does not support volumes.

Note: Inactive options are noted as such wherever they are shown this user guide.

Specifying user settings
Specify user settings to configure Db2 Change Accumulation Tool for use in data sharing and non-data sharing environments.

Procedure
1. On the IBM DB2 Change Accumulation Tool main menu, type a valid subsystem ID in the DB2 Subsystem ID field.
2. If you plan to use a current SQLID that is different from your user ID, enter the ID in the Current SQLID field. The SQLID you enter must be your TSO user primary authorization ID or secondary authorization ID.
3. Type 0 in the Option field and press Enter. The User Settings panel is displayed:
The values that you specify on this panel and its subpanels are unique to the current instance of Db2 Change Accumulation Tool.

4. Verify that the value displayed in the **Current user ind** field is the expected value. The value shown is the user indicator that is defined in the CLIST that you use to start up Db2 Change Accumulation Tool. The value shown in this field cannot be edited on this panel, it is set when the Db2 Change Accumulation Tool CLIST is started.

5. If your site is not SMS-managed and you are required to include a model DSCB in your JCL, enter a model DSCB name in the **Model DSN for GDG Base** field. The model DSCB must already exist. This field is optional if your data sets are SMS managed. Db2 Change Accumulation Tool uses the model DSCB, if provided. You can provide a different model DSCB for each subsystem that you configure.

6. Verify that the value displayed in the **DB2 Control Data Set** field is correct. The **DB2 Control Data Set** field displays the name of the Db2 control data set. This is the VSAM control file you have previously created and specified in the CLIST. The value shown in this field cannot be edited on this panel, it is set when the Db2 Change Accumulation Tool CLIST is started.

7. In the **DB2 Subsystem ID** field, type the subsystem identifier (ssid) for the Db2 subsystem that you want to configure. You must then specify the following options for that Db2 subsystem:
   a. Specify ZPARM BSDS and load library information for the Db2 subsystem. For more information, see “Specifying ZPARM bootstrap data sets and load libraries” on page 88.
   b. Specify Db2 Change Accum parameters. For more information, see “Specifying Db2 Change Accum parameters” on page 88.
   c. Specify Db2 shared profile support. For more information, see “Specifying Db2 shared profile support” on page 91.

8. Repeat Step 7 for each Db2 subsystem you want Db2 Change Accumulation Tool to work with.

If you are configuring Db2 Change Accumulation Tool in a data sharing environment, you must complete Step 7 for each member of the data sharing group. Specify the ZPARM, BSDS, and loadlib information specific to each member subsystem. Db2 Change Accumulation Tool uses the values you specify to determine the ZPARMS and log ranges to hold in the active and archive logs for the Db2 subsystem.

For the group attach name, specify the same values as any member that executes on the machine. Db2 Change Accumulation Tool uses these values to link to a valid Db2 subsystem on this LPAR. Db2 Change Accumulation Tool stores this information in the VSAM control file.

---

**Figure 12. User Settings panel**

The values that you specify on this panel and its subpanels are unique to the current instance of Db2 Change Accumulation Tool.

4. Verify that the value displayed in the **Current user ind** field is the expected value. The value shown is the user indicator that is defined in the CLIST that you use to start up Db2 Change Accumulation Tool. The value shown in this field cannot be edited on this panel, it is set when the Db2 Change Accumulation Tool CLIST is started.

5. If your site is not SMS-managed and you are required to include a model DSCB in your JCL, enter a model DSCB name in the **Model DSN for GDG Base** field. The model DSCB must already exist. This field is optional if your data sets are SMS managed. Db2 Change Accumulation Tool uses the model DSCB, if provided. You can provide a different model DSCB for each subsystem that you configure.

6. Verify that the value displayed in the **DB2 Control Data Set** field is correct. The **DB2 Control Data Set** field displays the name of the Db2 control data set. This is the VSAM control file you have previously created and specified in the CLIST. The value shown in this field cannot be edited on this panel, it is set when the Db2 Change Accumulation Tool CLIST is started.

7. In the **DB2 Subsystem ID** field, type the subsystem identifier (ssid) for the Db2 subsystem that you want to configure. You must then specify the following options for that Db2 subsystem:
   a. Specify ZPARM BSDS and load library information for the Db2 subsystem. For more information, see “Specifying ZPARM bootstrap data sets and load libraries” on page 88.
   b. Specify Db2 Change Accum parameters. For more information, see “Specifying Db2 Change Accum parameters” on page 88.
   c. Specify Db2 shared profile support. For more information, see “Specifying Db2 shared profile support” on page 91.

8. Repeat Step 7 for each Db2 subsystem you want Db2 Change Accumulation Tool to work with.

If you are configuring Db2 Change Accumulation Tool in a data sharing environment, you must complete Step 7 for each member of the data sharing group. Specify the ZPARM, BSDS, and loadlib information specific to each member subsystem. Db2 Change Accumulation Tool uses the values you specify to determine the ZPARMS and log ranges to hold in the active and archive logs for the Db2 subsystem.

For the group attach name, specify the same values as any member that executes on the machine. Db2 Change Accumulation Tool uses these values to link to a valid Db2 subsystem on this LPAR. Db2 Change Accumulation Tool stores this information in the VSAM control file.
Specifying ZPARM bootstrap data sets and load libraries

Specify ZPARM bootstrap data sets and load libraries to configure Db2 Change Accumulation Tool for use.

Procedure

1. Follow steps 1 through 7a in “Specifying user settings” on page 86.
2. On the User Settings panel, type 1 in the Command line and press Enter. The Update DB2 Subsystem Parameters panel is displayed:

   Figure 13. Update DB2 Subsystem Parameters panel

3. In the DB2ZPARMs Member field, type the ZPARM load module member name generated for this Db2 subsystem.
4. In the DB2 Bootstrap DSN #01 and DB2 Bootstrap DSN #02 fields, type the full data set names of the two bootstrap data sets that are being used by this Db2 subsystem.
5. In the DB2 Loadlib1, DB2 Loadlib2, DB2 Loadlib3, DB2 Loadlib4, and DB2 Loadlib5 fields, type the names of the data sets that comprise the current load library concatenation for Db2. The load library usually consists of a subsystem-specific DSNEXIT library, the base DSNEXIT library for the current Db2 version, and the base DSNLOAD library for the current Db2 version. There are two additional load library fields that can be left blank or used to specify other load libraries.
6. Press Enter to save your changes.
7. Press PF3 to exit.

Specifying Db2 Change Accum parameters

Follow these steps to specify Db2 Change Accum parameters.

Procedure

1. Follow steps 1 through 7b in “Specifying user settings” on page 86.
2. On the User Settings panel, type 2 in the Command line and press Enter. The DB2 Change Accum Parameters panel is displayed:
Figure 14. DB2 Change Accum Parameters panel

3. Specify DB2 parameters.
   a. In the **Plan #1 Name** field, type the plan name for Db2 Change Accumulation Tool. This must be the same plan name that you specified in the bind job.

4. Specify file allocation parameters.
   a. In the **Number of buffers** field, type the number of buffers Db2 Change Accumulation Tool can use. Valid values are in the range 1-99.
   b. In the **Channel programs** field, type the number of channel programs to be used by Db2 Change Accumulation Tool. If a value of 0 is set, a predetermined **Channel programs** setting is used to optimize performance. Otherwise, values in the range 1-99 can be specified to determine a best fit value for the site. The number of channel programs you specify controls how many outstanding QSAM channel programs can run concurrently before the earliest one is checked for completion.

5. Specify file parameters for work file data sets created by Db2 Change Accumulation Tool.
   a. In the **Device type** field, type the device type for work data sets created by Db2 Change Accumulation Tool. A device type value of DASD is valid for mini logs, work files, and SYSPRINT. A device type value of TAPE is valid for work files and SYSPRINT but is not valid for mini logs.
   b. In the **Data set type** field, type the data set type that is used for work data sets created by Db2 Change Accumulation Tool.

   **Note:** At this time, the L setting is not available. Only B is supported at this time.

<table>
<thead>
<tr>
<th>Work Files</th>
<th>SYSPRINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device type</td>
<td>SYSALLDA (DISK, CART, etc.)</td>
</tr>
<tr>
<td>Data set type</td>
<td>B (B - Basic, L - Large)</td>
</tr>
<tr>
<td>Track or cylinder</td>
<td>T (T - Trk, C - Cyl)</td>
</tr>
<tr>
<td>Primary quantity</td>
<td>00000050 (1 to 16777215, disk only)</td>
</tr>
<tr>
<td>Secondary quantity</td>
<td>00000050 (1 to 16777215, disk only)</td>
</tr>
<tr>
<td>Maximum volumes</td>
<td>(1 to 255, tape only)</td>
</tr>
<tr>
<td>SMS data class</td>
<td>(1-8 characters or blank)</td>
</tr>
<tr>
<td>SMS storage class</td>
<td>(1-8 characters or blank)</td>
</tr>
<tr>
<td>SMS management class</td>
<td>(1-8 characters or blank)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mini Logs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device type</td>
</tr>
<tr>
<td>Data set type</td>
</tr>
<tr>
<td>Track or cylinder</td>
</tr>
<tr>
<td>Primary quantity</td>
</tr>
<tr>
<td>Secondary quantity</td>
</tr>
<tr>
<td>Maximum volumes</td>
</tr>
<tr>
<td>SMS data class</td>
</tr>
<tr>
<td>SMS storage class</td>
</tr>
<tr>
<td>SMS management class</td>
</tr>
</tbody>
</table>
c. In the **Track or cylinder** field, type the allocation unit that is used for work data sets created by Db2 Change Accumulation Tool. Valid values are **T** (tracks) and **C** (cylinders).

d. In the **Primary quantity** field, type the primary quantity that is used for work data sets created by Db2 Change Accumulation Tool (in the units specified in the **Track or Cylinder** field). The maximum value that can be specified in the primary quantity field is 16777215. If you need to specify more space than this allows, convert to a different space unit (for example, convert bytes to kilobytes by dividing by 1024) and specify the new value.

e. In the **Secondary quantity** field, type the secondary quantity that is used for work data sets created by Db2 Change Accumulation Tool (in the units specified in the **Track or Cylinder** field). The maximum value that can be specified in the secondary quantity field is 16777215. If you need to specify more space than this allows, convert to a different space unit (for example, convert bytes to kilobytes by dividing by 1024) and specify the new value.

f. In the **Maximum volumes** field, type the maximum number of volumes that can be used for work data sets. The **Maximum Volumes** field is valid when the **Device Type** field has a value of **DASD** (valid for Mini Logs, Work Files and SYSPRINT) or **TAPE** (valid for Work Files and SYSPRINT).

g. (Optional) In the **SMS data class** field, type the SMS data class for work data sets created by Db2 Change Accumulation Tool.

h. (Optional) In the **SMS storage class** field, type the type the SMS storage class for work data sets created by Db2 Change Accumulation Tool.

i. (Optional) In the **SMS management class** field, type the SMS management class for work data sets created by Db2 Change Accumulation Tool.

6. Specify file parameters for mini log data sets created by Db2 Change Accumulation Tool.

a. In the **Device type** field, type the device type for mini log data sets created by Db2 Change Accumulation Tool. A device type value of **DASD** is valid for mini logs, work files, and SYSPRINT. A device type value of **TAPE** is valid for work files and SYSPRINT but is not valid for mini logs.

b. In the **Data set type** field, type the data set type that is used for mini log data sets created by Db2 Change Accumulation Tool.

   **Note:** At this time, the **L** setting is not available. Only **B** is supported at this time.

c. In the **Track or cylinder** field, type the allocation unit that is used for mini log data sets created by Db2 Change Accumulation Tool. Valid values are **T** (tracks) and **C** (cylinders).

d. In the **Primary quantity** field, type the primary quantity that is used for mini log data sets created by Db2 Change Accumulation Tool (in the units specified in the **Track or Cylinder** field). The maximum value that can be specified in the primary quantity field is 16777215. If you need to specify more space than this allows, convert to a different space unit (for example, convert bytes to kilobytes by dividing by 1024) and specify the new value.

e. In the **Secondary quantity** field, type the secondary quantity that is used for mini log data sets created by Db2 Change Accumulation Tool (in the units specified in the **Track or Cylinder** field). The maximum value that can be specified in the secondary quantity field is 16777215. If you need to specify more space than this allows, convert to a different space unit (for example, convert bytes to kilobytes by dividing by 1024) and specify the new value.
f. In the **Maximum volumes** field, type the maximum number of volumes that can be used for mini log data sets. The **Maximum Volumes** field is valid when the **Device Type** field has a value of **DASD** (valid for Mini Logs, Work Files and SYSPRINT) or **TAPE** (valid for Work Files and SYSPRINT).

g. (Optional) In the **SMS data class** field, type the SMS data class for mini log data sets created by Db2 Change Accumulation Tool.

h. (Optional) In the **SMS storage class** field, type the SMS storage class for mini log data sets created by Db2 Change Accumulation Tool.

i. (Optional) In the **SMS management class** field, type the SMS management class for mini log data sets created by Db2 Change Accumulation Tool.

**Note:**
- The same allocation settings (defined in the mini log allocation fields) are used for mini log 1 and mini log 2 (when creating 2 mini logs). If the data set name is specified in the control cards, the same allocation information (defined in the mini log allocation fields) is used for both dsn_1 and dsn_2.
- All the mini log data sets are allocated with the RLSE (release) parameter.
- Uncatalogued tapes are not supported for mini logs.
- There are no space related control cards used for MINI_LOG_DSN_1 and MINI_LOG_DSN_2. Space allocation is handled by the settings defined on the Setup panel.

7. Press PF3 to save and exit.

**Specifying Db2 shared profile support**

Follow these steps to specify Db2 shared profile support.

**Procedure**

1. Follow steps 1 through 7c in "Specifying user settings" on page 86.

2. On the User Settings panel, type 3 in the Command line and press Enter. The DB2 Change Accum Parameters panel is displayed:
3. Specify shared profile support parameters.
   a. In the **Sort Program Installed** field, type the appropriate value:
      - **S**  Syncsort
      - **D**  Dfsort
   b. In the **Sortlib DSN** field, type the SORTLIB data set name. If **Sort Work File Unit Device** is set to **Tape**, then **Sortlib DSN** has to be specified.
   c. In the **Catalog/History PackageList** field, type the catalog/history package list (PKLIST) name for Db2 shared profile support. The catalog/history package list names you specify in these fields must be the same PKLIST name that you specified in the bind job (this corresponds to the value you specified in place of #PACKAGEC#, the package you specified for storing RUNSTATS statistics in the Db2 catalog). Valid values are up to 18 characters in length.
   d. In the **Shadow Catalog PackageList** field, type the
   e. In the **Catalog/History PackageList** field, type the shadow catalog package list (PKLIST) name for Db2 shared profile support. The shadow package list names you specify in these fields must be the same PKLIST name that you specified in the bind job (this corresponds to the value you specified in place of #PACKAGES#, the package you specified for storing RUNSTATS statistics in the shadow history tables). Valid values are up to 18 characters in length.
   f. Skip the **Repository PackageList** field. This field is not used by Db2 Change Accumulation Tool.
   g. In the **Work File Unit Device** field, type the default work file unit device to be used when generating JCL. Valid values are SYSDA, DISK, etc.
h. In the **Sort Work File Unit Device** field, type the SORT work file unit device to be used when generating utility JCL. Valid values are SYSDA, DISK, etc.

**Note:**
- If **Sort Work File Unit Device** is set to Tape, then **Number of Sort Work DDs** has to be >=3 and <=99.
- If **Sort Work File Unit Device** is set to SYSDA, then **Number of Sort Work DDs** has to be >=1 and <=99.
- If **Sort Work File Unit Device** is set to Tape, then **Sortlib DSN** has to be specified.

i. Skip the **Job Tracking Subsystem Name** field. This field is not used by Db2 Change Accumulation Tool.

j. In the **Max Primary Space Allocation** field, type the maximum number of either cylinders, tracks, or megabytes for a primary space allocation. Valid values must be less than or equal to the number of cylinders/tracks/megabytes on the specific DASD in your environment.

k. In the **Secondary Allocation Percent** field, type the percent of the primary allocation that is used to define the secondary allocation. For example, if a primary allocation of 250 is specified and a secondary allocation percent of 10 is defined, the allocation would be 250,25 (it allocates 250 tracks / cylinders initially and then add another 25 tracks / cylinders when the initial space fills up).

l. In the **Utility REGION Size** field, type the REGION size in megabytes to be used when generating utility JCL. Valid values are 0 to 2047.

m. In the **DB2 Fetch Buffer Size** field, type the fetch buffer size is used with multi-row fetch. This field should only be changed if you are working with large volumes of Db2 data during your job builds and wish to optimize performance.

n. In the **Parallel MVS Catalog Locates** field, type the number of parallel processing tasks to be created when performing MVS catalog LOCATE operations. Valid values are 1 to 99.

o. In the **Terminate Utility if an ABEND** field, type the whether to generate termination utility JCL if a utility should ABEND during its execution. Valid values are:
   - **Y** Generates termination utility JCL if an ABEND occurs during execution.
   - **N** Does not generate termination utility JCL if an ABEND occurs during execution.

p. In the **Generate Steplib DDs** field, type the appropriate value:
   - **Y** Insert STEPLIB DD statements into your JCL to provide an alternate means of specifying a private library.
   - **N** Do not insert STEPLIB DD statements into your JCL.

q. In the **Gen Image Copy DSNs in GMT** field, type the appropriate value:
   - **Y** Generate image copy DSN timestamps in Greenwich Meridian Time (GMT) instead of local time.
   - **N** Do not generate image copy DSN timestamps in Greenwich Meridian Time (GMT) instead of local time.

4. Specify override values for sort work data sets.
a. In the **Primary Sort Work Space** field, type the primary space used (cylinders) for Db2 Change Accumulation Tool sort work data sets.

b. In the **Secondary Sort Work Space** field, type the secondary space used (cylinders) for Db2 Change Accumulation Tool sort work data sets.

c. In the **Number of Sort Work DDs** field, type the number of SORTWKnn DD statements used for Db2 Change Accumulation Tool sort work data sets.

**Note:**
- If **Sort Work File Unit Device** is set to **Tape**, then **Number of Sort Work DDs** can be left blank or has to be >=3 and <=99.
- If **Sort Work File Unit Device** is set to **SYSDA**, then **Number of Sort Work DDs** can be left blank or has to be >=1 and <=99.

5. Press Enter to save your changes.
Chapter 6. Working with object profiles

Object profiles contain customizable, reusable lists of Db2 objects. You can group related objects into one profile, such as all objects for a particular application. You can use object profiles to streamline the process of running Db2 Change Accumulation Tool utilities for customized sets of objects.

Creating an object profile is the first step to creating a Db2 Change Accumulation Tool job using the ISPF interface. You can include the following types of objects in an object profile:
- Databases
- Table spaces
- Indexes
- Partitions of a table space
- Partitions of an index
- LOBs
- XML objects

Topics:
- “Creating an object profile”
- “Updating an object profile” on page 114
- “Viewing an object profile” on page 116
- “Deleting an object profile” on page 116
- “Renaming an object profile” on page 117
- “Exporting an object profile” on page 118
- “Importing an object profile” on page 119
- “Performing a quick build” on page 119
- “Viewing job profiles for an object profile” on page 124
- “Using the EXPLODE command” on page 125
- “Recovering to a different table space” on page 126
- “Generating rebuild index for TARGET on OBIDXLAT” on page 135
- “Generating rebuild index for TARGET DB.TS on OBIDXLAT” on page 135

Creating an object profile

Create an object profile to hold objects such as table spaces or indexes to the profile.

Procedure

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the Option field and press Enter.
2. On the Objects Profile Display panel, type C in the Cmd field and press Enter. The Enter New Objects Profile data panel is displayed:
3. In the Creator field, type the creator for the object profile. This field contains your user ID but you can optionally modify it.

4. In the Profile Name field, type the name for the object profile.

5. In the Description field, type a description of the object profile.

6. In the Update Option field, type the update option you want to use for the object profile. Valid values are:
   - U: Other users are allowed to update the object profile.
   - V: Other users are allowed to view the object profile.
   - N: Other users are not allowed to view or update the object profile.

7. Press Enter. The Add Objects to the Object Profile panel is displayed:

8. Type Y in the Add Tables or Add Indexes fields for the objects you would like to add and press Enter.

   **Note:** Db2 Change Accumulation Tool selects and stores index type objects in the object profile. When an index type object is built into the job, it uses the index space form <dbname>.<ixspacename>. This triggers the processing within the code that processes an index space in a similar manner to table spaces.

9. Add table spaces and indexes to your object profile as appropriate for your objectives. Refer to these topics for more information:
   - “Adding table spaces from a list” on page 97
   - “Adding table spaces from a list using advanced SQL” on page 98
   - “Adding table spaces at job build time using wildcards” on page 100
   - “Adding table spaces at job build time using advanced SQL and wildcards” on page 102
   - “Adding indexes for a table space” on page 104
   - “Processing dependent indexes” on page 105
   - “Processing referentially dependent table spaces” on page 106
   - “Processing clone tables” on page 107

10. When you have finished adding table spaces and indexes to your object profile, press PF3 to return to the Update Object Profile Display.
11. Verify that the objects listed in the table on the Update Object Profile Display panel are correct.

12. Press PF3 to exit.

Adding table spaces to an object profile

You can add table spaces to an object profile in several ways. You can specify table spaces by database, table space or creator name, with or without wild cards. You can use custom SQL to specify other criteria to select the table spaces. Additionally, you can include all indexes on the table spaces, include clone tables only, or include referentially related table spaces.

Adding table spaces from a list

Select individual table spaces from a list and add them to your object profile.

Procedure

1. Access the Add Objects to the Object Profile panel as described in “Creating an object profile” on page 95 or “Updating an object profile” on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the Add Tables spaces field and press Enter. The Enter Tables Spaces Like to Display panel is displayed:

3. In the Wildcard field, type N.

4. In the Database Like, Tablespace Like, and Creator Like fields, type the appropriate values or mask and press Enter. The Creator Like field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left. The
Include Tablespace Selection panel is displayed. This panel lists the table spaces that match your selection criteria and provides detailed information about each table space.

5. In the **Cmd** field, type S next to the table spaces you want to select for inclusion in your object profile and press Enter.

6. When you have finished adding table spaces to your object profile, press PF3.

---

### Adding table spaces from a list using advanced SQL

Refine the list of table spaces to be included in your object profile by providing an advanced SQL statement with a customized WHERE clause. Any valid WHERE clause that selects table spaces to be included can be specified.

---

#### About this task

Advanced SQL works with the criteria that you specify in the **Database Like**, **Tablespace Like**, and **Creator Like** fields on the Enter Tablespaces Like to Display panel. These criteria are combined with the SQL statement to select the table spaces.

Selecting table spaces from a list requires setting the **Wildcard** field to **N** on the Enter Tablespaces Like to Display panel. When **Wildcard** is set to **N**, the advanced SQL is used to build the list of table spaces from which to select. After you choose the spaces, the advanced SQL is discarded and not saved in the object profile.

---

#### Procedure

1. Access the Add Objects to the Object Profile panel as described in "Creating an object profile" on page 95 or "Updating an object profile" on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the **Add Tablespaces** field and press Enter. The Enter Tablespaces Like to Display panel is displayed:

   **Enter Tablespaces Like to Display**

   | GGC$OTL9 | Database Like . . . * | Wildcard . N (Yes/No) |
   | Tablespace Like . * | Exclude . I (E - Exclude, I - Include) |
   | Creator Like . . * > | Process Dependent Indexes . . . . . . . N (Yes/No) |
   | Process Referentially Dependent Tablespaces. N (Y - Yes, N - No), B - Build time Expansion, R - Run time Expansion) |
   | Process Cloned Tables . . . . . . . . N (Yes/No) |
   | Advanced SQL . . . Y (Yes/No) | Update SQL Y (Yes/No) |

3. In the **Wildcard** field, type N.

4. In the **Database Like**, **Tablespace Like**, and **Creator Like** fields, type the appropriate wildcard values

   **Note:** The **Creator Like** field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left.

5. In the **Advanced SQL** field, type Y.

6. In the **Update SQL** field, type Y.

7. Press Enter. The Object Selection Advanced SQL panel is displayed:
8. In the SQL input area, type your SQL statement. The SQL statement you type must meet these requirements:
   - It must be a SELECT statement that specifies the following columns:
     - The first column is required and must represent a database name.
     - The second column is required and must represent a table space name.
     - The third column is optional, but if present must represent a partition number.
   - The FROM clause must be specified after the SELECT statement.
   - Use any WHERE clause criteria that identifies the objects to be included in the object profile.

9. (Optional) If you want to look up table names and their columns, type T in the Cmd field and press Enter. The Table Selection panel is displayed, which you can use to generate a list of tables on this subsystem and find columns names associated with the tables. The following panel shows a sample valid advanced SQL statement:

   ```sql
   SELECT D.NAME, S.NAME
   FROM SYSIBM.SYSDATABASE D, SYSIBM.SYSTABLESPACE S
   WHERE D.IMPLICIT = 'Y' AND S.IMPLICIT = 'Y' AND D.NAME = S.DBNAME
   ```

   **Figure 21. Object Selection Advanced SQL panel**

10. To verify that the results of the SQL select statement are as expected, type EXECUTE in the Option field and press Enter. The SQL statement is run and the results of the SELECT are listed on the Advanced SQL Test Facility panel:
Figure 23. Advanced SQL Test Facility panel showing SQL statement results

The Advanced SQL Test Facility panel shows the results of the SQL SELECT statement execution. The data on the panel are read-only. The EXECUTE command runs the SQL statement without consideration for the Database Like, Tablespace Like, or Creator Like criteria that you specified on the Enter Tablespace Like to Display panel.

11. When you are satisfied with the results of the SELECT statement, press PF3. Because the Wildcard field was set to N on the Enter Tablespace Like to Display window, the SQL statement is not saved when you exit the Object Selection Advanced SQL panel. The Include Tablespace Selection panel is displayed. This panel shows the results of the combined SQL SELECT statement and the Database Like, Tablespace Like, and Creator Like criteria that you specified on the Enter Tablespace Like to Display panel.

12. On the Include Tablespace Selection panel, select the table spaces that you want to include in the object profile.

Adding table spaces at job build time using wildcards

Add table spaces to an object profile using wildcards.

Procedure

1. Access the Add Objects to the Object Profile panel as described in “Creating an object profile” on page 95 or “Updating an object profile” on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the Add Tablespaces field and press Enter. The Enter Tablespace Like to Display panel is displayed:
3. In the **Wildcard** field, type a Y and press Enter.

4. If the table spaces you selected are partitioned, the Choose Partition Method window displays:

   **Choose Partition Method**

   **GGC$PART**

   Utilities can run against each partition or it can run against all partitions. When GGC explodes wildcard table and index spaces, which method would you like partitioned spaces exploded?

   **Explode** A (A - All, P - Partitioned)

**Figure 24. Enter Table Spaces Like to Display panel**

**Figure 25. Choose Partition Method panel**

If the table spaces you selected are partitioned, you can use this window to specify how Db2 Change Accumulation Tool should process partitions. To handle all partitions, type A in the **Explode** field and press Enter. To have each partition processed individually, type P in the **Explode** field and press Enter.

**Note:** On the Update Object Profile panel, you can enter the EXPLODE primary command or the E line command to review the expanded list of all table spaces and index spaces currently included in the profile. The Update Object Profile Display panel displays, as shown in the following figure:

**Figure 26. Update Object Profile Display panel**

Each selected object and each object wildcard mask is listed as a single profile line on the screen. By default, the objects are listed in the order they were added to the object profile. You can use the EXPLODE primary or line command
to see an expanded list of all table spaces and index spaces included in the profile. You can sort the list using any of the columns by entering the following in the Option line: SORT column_name

Adding table spaces at job build time using advanced SQL and wildcards

If you have an application that frequently adds or removes table spaces, you can use advanced SQL and wildcards with your object profile to resolve the object list at build time. This allows you to avoid having to manually update the object profile when your application adds or removes a table space.

Procedure

1. Access the Add Objects to the Object Profile panel as described in “Creating an object profile” on page 95 or “Updating an object profile” on page 114.
2. On the Add Objects to the Object Profile panel, type Y in the Add Tablespace field and press Enter. The Enter Tablespaces Like to Display panel is displayed:

<table>
<thead>
<tr>
<th>Database Like</th>
<th>Wildcard</th>
<th>Tablespace Like</th>
<th>Exclude</th>
<th>Creator Like</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>. *</td>
<td></td>
<td>!</td>
<td></td>
</tr>
<tr>
<td>Process Dependent Indexes</td>
<td>N (Yes/No)</td>
<td>Process Referentially Dependent Tablespaces</td>
<td>N (Y - Yes, N - No, B - Build time Expansion, R - Run time Expansion)</td>
<td></td>
</tr>
<tr>
<td>Process Cloned Tables</td>
<td>N (Yes/No)</td>
<td>Advanced SQL</td>
<td>N (Yes/No)</td>
<td>Update SQL</td>
</tr>
</tbody>
</table>

Figure 27. Enter Table Spaces Like to Display panel

3. In the Database Like, Tablespace Like, and Creator Like fields, type the appropriate values or mask.

   **Note:** The Creator Like field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left.

4. In the Wildcard field, type Y.
5. In the Advanced SQL field, type Y.
6. In the Update SQL field, type Y.
7. Press Enter. The Object Selection Advanced SQL panel is displayed:

Figure 28. Object Selection Advanced SQL panel
8. In the **SQL** input area, type your SQL statement. The SQL statement you type must meet these requirements:

   - It must be a SELECT statement that specifies the following columns:
     - The first column is required and must represent a database name.
     - The second column is required and must represent a table space name.
     - The third column is optional, but if present must represent a partition number.
   - The FROM clause must be specified after the SELECT statement.
   - Use any WHERE clause criteria that identifies the objects to be included in the object profile.

You can use the following commands as you construct your SQL:

**EXECUTE**

Test the custom SQL statement. If the SQL statement is invalid, the SQL error is displayed. If no objects match the criteria, a message is displayed that indicates the SQL statement returned 0 rows.

**IMPORT**

Import user-defined SQL from a data set.

C Copy the current line to anywhere the A (Add) line command is entered. You can copy multiple lines using the CC line command to mark both the beginning and the end of a block of lines you want to copy.

D Delete the current line.

I Insert a blank line after the current line.

M Move the current line to anywhere the A (Add) line command is entered.

T Display a table and column selection screen to assist in constructing SQL statements.

9. (Optional) If you want to look up table names and their columns, type T in the **Cmd** field and press Enter. The Table Selection panel is displayed, which you can use to generate a list of tables on this subsystem and find columns names associated with the tables. The following panel shows a sample valid advanced SQL statement:

```sql
SELECT D.NAME, S.NAME
FROM SYSIBM.SYSDATABASE D, SYSIBM.SYSTABLESPACE S
WHERE D.IMPLICIT = 'Y' AND S.IMPLICIT = 'Y' AND D.NAME = S.DBNAME
```

**Figure 29. Object Selection Advanced SQL panel**

10. To verify that the results of the SQL select statement are as expected, type **EXECUTE** in the **Option** field and press Enter. The SQL statement is run and the results of the SELECT are listed on the Advanced SQL Test Facility panel:
Adding indexes for a table space

Add indexes for a table space to your object profile.

Procedure

1. Access the Add Objects to the Object Profile panel as described in “Creating an object profile” on page 95 or “Updating an object profile” on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the Add Tablespace field and press Enter. The Enter Tablespaces Like to Display panel is displayed:

   ![Figure 30. Advanced SQL Test Facility panel showing SQL statement results](image)

   The Advanced SQL Test Facility panel shows the results of the SQL SELECT statement execution. The data on the panel are read-only. The EXECUTE command runs the SQL statement without consideration for the Database Like, Tablespace Like, or Creator Like criteria that you specified on the Enter Tablespaces Like to Display panel.

11. When you are satisfied with the results of the SELECT statement, press PF3.

12. Specify how table space partitions are to be processed. To handle all partitions (for example, equivalent to a REORG TABLESPACE), type A in the Explode field. To individually process each partition (for example, equivalent to REORG TABLESPACE PART n), type P in the Explode field.

13. Press Enter. The specified spaces are added to the Update Object Profile Display panel and a Y is entered in the Wildcard column.
3. In the Wildcard field, type N.

4. In the Database Like, Tablespace Like, and Creator Like fields, type the appropriate values or mask and press Enter.

   **Note:** The Creator Like field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left.

5. In the Cmd field, type I next to the table space for which you want to select indexes for inclusion in your object profile and press Enter. The Include Index Selection panel is displayed.

6. In the Cmd field next to the indexes you want to include in your object profile, type S and press Enter.

7. When you have finished adding indexes to your object profile, press PF3.

**Processing dependent indexes**
Create an object profile that processes the dependent indexes for a table space.

**Procedure**

1. Access the Add Objects to the Object Profile panel as described in "Creating an object profile" on page 95 or "Updating an object profile" on page 114.
2. On the Add Objects to the Object Profile panel, type Y in the Add Tablespaces field and press Enter. The Enter Tablespaces Like to Display panel is displayed:

![Tablespaces Like to Display Panel](image)

3. In the Process Dependent Indexes field, type Y.

4. In the Database Like, Tablespace Like, and Creator Like fields, type the appropriate values or mask and press Enter.

   **Note:** The Creator Like field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left.

   The Include Tablespace Selection panel is displayed. This panel lists the table spaces that match your selection criteria and provides detailed information about each table space.

5. In the Cmd field, type S next to the table spaces you want to select for inclusion in your object profile and press Enter.

6. When you have finished adding table spaces to your object profile, press PF3.

**Processing referentially dependent table spaces**

Create an object profile that includes all table spaces that are related by referential integrity. This allows a utility to maintain referential constraints by executing all referentially related objects at the same time.

**About this task**

Some job steps cannot use LISTDEFs for object determination. These include the job registration step for the job tracking task, START and STOP DATABASE commands, and any IBM utility or command that does not support LISTDEFs, such as REPAIR.

If RI spaces are to be processed and job generation options specify LISTDEFS, the job steps that cannot use LISTDEFs must determine the RI structure at job build time. If the RI structure changes between job build and job execution time, the object lists may not be consistent between steps.

**Procedure**

1. Access the Add Objects to the Object Profile panel as described in "Creating an object profile" on page 95 or "Updating an object profile" on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the Add Tablespaces field and press Enter. The Enter Tablespaces Like to Display panel is displayed:
3. In the **Process Referentially Dependent Tablespaces** field, type the appropriate value:

**Y**  
Process the table space and all its referentially dependent table spaces. The RI is expanded depending on the value of the LISTDEF job option. With LISTDEFs off, the RI is expanded at build time. If LISTDEFs are selected, the RI is expanded at utility execution time using the LISTDEF RI keyword.

**N**  
Do not process referentially related table spaces.

**B**  
Force RI to be expanded at build time regardless of the LISTDEF option.

**R**  
Force RI to be expanded at utility execution time. LISTDEFs are required with this option.

4. In the **Database Like**, **Tablespace Like**, and **Creator Like** fields, type the appropriate values or mask and press Enter.

**Note:** The **Creator Like** field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left. If you specified **Y**, **B**, or **R** in the **Process Referentially Dependent Tablespaces** field, the Include Tablespace Selection panel is displayed. This panel lists the table spaces that match your selection criteria and provides detailed information about each table space.

5. In the **Cmd** field next to the table spaces you want to include in your object profile, type **S** and press Enter.

**Processing clone tables**

Include clone tables in your object profile.

**About this task**

A clone table is a copy of a base table. The clone table has the same structure as the base table and exists in the same table space as the base table. All related objects are cloned, such as indexes and before triggers. Data can be exchanged between a base table and clone table by using SQL statements. When you create an object profile that processes clone objects, only the clone objects are included in the object profile. If you also want to process the base object, you must separately include the base object in your object profile, with the **Process Clone** option set to **N**.
**Procedure**

1. Access the Add Objects to the Object Profile panel as described in “Creating an object profile” on page 95 or “Updating an object profile” on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the Add Tablespace field and press Enter. The Enter Tablespace Like to Display panel is displayed:

<table>
<thead>
<tr>
<th>Enter Tablespace Like to Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Like: *</td>
</tr>
<tr>
<td>Tablespace Like: *</td>
</tr>
<tr>
<td>Creator Like: *</td>
</tr>
<tr>
<td>Process Dependent Indexes: N (Y/N)</td>
</tr>
<tr>
<td>Process Referentially Dependent Tablespace: N, B, R (Y/N)</td>
</tr>
<tr>
<td>Process Cloned Tables: N (Y/N)</td>
</tr>
<tr>
<td>Advanced SQL: N (Y/N)</td>
</tr>
</tbody>
</table>

   *Figure 35. Enter Table Spaces Like to Display panel*

3. In the Process Cloned Tables field, type Y.

4. In the Database Like, Tablespace Like, and Creator Like fields, type the appropriate values or mask and press Enter. The Creator Like field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left. The Include Tablespace Selection panel is displayed. This panel lists the table spaces that match your selection criteria and provides detailed information about each table space.

5. In the Cmd field next to the clone tables you want to include in your object profile, type S and press Enter.

6. Press PF3 to exit.

**Adding indexes to an object profile**

You can select individual indexes from a list to include in an object profile or you can use wild cards to add indexes at job build time. You can include indexes by database name, creator name, or index name, with or without wild cards.

**Adding indexes from a list**

Select individual table spaces from a list and add them to your object profile.

**Procedure**

1. Access the Add Objects to the Object Profile panel as described in “Creating an object profile” on page 95 or “Updating an object profile” on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the Add Indexes field and press Enter. The Enter Indexes Like to Display panel is displayed:

<table>
<thead>
<tr>
<th>Enter Indexes Like to Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Like: *</td>
</tr>
<tr>
<td>Creator Like: *</td>
</tr>
<tr>
<td>Index Like: *</td>
</tr>
<tr>
<td>Wildcard N (Y/N)</td>
</tr>
<tr>
<td>Process Cloned Indexes N (Y/N)</td>
</tr>
</tbody>
</table>

   *Figure 36. Enter Indexes Like to Display panel*
3. In the **Database Like**, **Creator Like**, and **Index Like** fields, type the appropriate values or mask and press Enter. The **Creator Like** field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left. The Include Index Selection panel is displayed. This panel lists the indexes that match your selection criteria and provides detailed information about each index.

4. In the **Cmd** field next to the indexes you want to include in your object profile, type `S` and press Enter.

5. When you have finished adding indexes to your object profile, press PF3.

**Adding indexes using wildcards**

Add indexes to an object profile using wildcards and add matching indexes in a single step.

**Procedure**

1. **Access the Add Objects to the Object Profile panel** as described in "Creating an object profile" on page 95 or "Updating an object profile" on page 114.

2. On the Add Objects to the Object Profile panel, type `Y` in the **Add Indexes** field and press Enter. The Enter Indexes Like to Display panel is displayed:

```
Figure 38. Enter Indexes Like to Display
```

3. Type `Y` in the **Wildcard** field and press Enter. If the table spaces you selected are partitioned, the Choose Partition Method window is displayed.
4. Type the appropriate value in the **Explode** field to process all partitions. Valid values are:

- **A** Process all partitions together.
- **P** Process each partition individually.

The Update Object Profile Display panel is displayed:

Each selected object and each object wildcard mask is listed as a single profile line on the screen. By default, the objects are listed in the order they were added to the object profile. You can use the EXPLODE primary or line command to see an expanded list of all table spaces and index spaces included in the profile. You can sort the list using any of the columns by entering `SORT column_name` in the Option line. Scroll right (PF11) to see all columns.

**Processing cloned indexes**
Configure your object profile to process cloned indexes.

**About this task**

A clone table is a copy of a base table. The clone table has the same structure as the base table and exists in the same table space as the base table. All related objects are cloned, such as indexes and before triggers. Data can be exchanged between a base table and clone table by using SQL statements. When you create an object profile that processes clone objects, only the clone objects are included in the object profile. If you also want to process the base object, you must separately include the base object in your object profile, with the **Process Clone** option set to **N**.
Procedure

1. Access the Add Objects to the Object Profile panel as described in "Creating an object profile" on page 95 or "Updating an object profile" on page 114.

2. On the Add Objects to the Object Profile panel, type Y in the Add Indexes field and press Enter: The Enter Indexes Like to Display panel is displayed:

<table>
<thead>
<tr>
<th>Field</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Like</td>
<td>*</td>
</tr>
<tr>
<td>Creator Like</td>
<td>*</td>
</tr>
<tr>
<td>Index Like</td>
<td>*</td>
</tr>
<tr>
<td>Wildcard N</td>
<td>(Yes/No)</td>
</tr>
<tr>
<td>Exclude I</td>
<td>(E = Exclude, I = Include)</td>
</tr>
<tr>
<td>Process Cloned Indexes</td>
<td>N (Yes/No)</td>
</tr>
</tbody>
</table>

Figure 41. Enter Indexes Like to Display panel

3. Type Y in the Process Cloned Indexes field and press Enter.
4. In the Database Like, Tablespace Like, and Creator Like fields, type the appropriate values or mask and press Enter. The Creator Like field allows up to 128 bytes. To scroll the entire contents of this field, place the cursor in the field and use the PF11 key to scroll right and the PF10 key to scroll left. The Include Tablespace Selection panel is displayed. This panel lists the table spaces that match your selection criteria and provides detailed information about each table space.
5. In the Cmd field next to the clone indexes you want to include in your object profile, type S and press Enter.
6. Press PF3 to exit.

Process IX settings in object and utility profiles

The settings you choose for the Process IX field on the Update Object Profile Display panel (GGC$OPRU) and the REBUILD INDEX field on the Utility Profile Options panel (GGC$UOPT) influence the processing that Db2 Change Accumulation Tool performs.

Process IX = N and REBUILD INDEX = G, D or N
Indexes associated to the DB.TS on the object profile are not processed because Process IX is set to N on the object profile.

Process IX = Y and REBUILD INDEX = D
Indexes for a given table space object are processed by the DB2 REBUILD utility. This generates the Db2 Rebuild Index step for the indexes specified on the object profile.

Process IX = Y and REBUILD INDEX = N
Indexes for a given table space object are processed in accordance with Write Mode option (copy to copy, mini logs, WRITE_TO_VSAM or WRITE_TO_BOTH).

Process IX = Y and REBUILD INDEX = G
Indexes for a given table space object are processed with parallel rebuild (REBUILD_INDEXES keyword is generated).

Object profiles - fields and columns

These fields and columns are shown on the various panels relating to object profiles.

Alt Output DBNAME.TSNAME
(Optional) An alternate DBNAME.TSNAME to be used in Rebuild Index

Chapter 6. Working with object profiles  111
All Tablespace DB.TS on the rebuild index process. If left blank, the object name from the object profile is used instead. This allows for name overriding. If the objects in the build contain no indexes or the objects don’t have OBIDXLAT processing turned on, the secondary job will not be produced.

**Creator**
The profile creator.

**Database**
The source database name.

**DBID Pair**
The database ID of the source and a field in which users can type the target DBID.

**Description**
The object profile description.

**Inc/Exc**
Indicates whether the objects are to be included in or excluded from the object profile. Valid values are:

- **INC** Objects in the line item are to be included in the object profile.
- **EXC** Objects in the line item are to be excluded from the object profile.

**Incremental Image Copies**
Indicates whether to include incremental image copies when performing the translation. If this option is specified, the incremental image copies you specify will be used instead of increments from SYSCOPY.

**Input DSN**
(Optional) The fully-qualified Db2 data set name of a full image copy to be used instead of reading SYSCOPY. If you specify a value for Input DSN, you must also fill in the RBA/LRSN for the full image copy in the RBA/LRSN field.

**Note:** If the Input DSN field is not specified, Db2 Change Accumulation Tool will instead read SYSCOPY.

**IX DB Name/TS Crtr**
For table spaces, the table space creator. For indexes, the index database name.

**IX Name/TS Name**
For table spaces, this column contains the table space name or mask. For indexes, this column contains the index name or mask.

**Last Updated - Timestamp**
The date and time the space was last updated.

**Last Updated - Userid**
The user ID who added the space to the profile.

**OBID Xlat**
Indicates whether OBID translation is set. Valid values are:

- **Y** OBID translation is set.
- **N** OBID translation is not set.
- **U** If you specify a U in the **OBID Xlat** column and press Enter, Db2 Change Accumulation Tool displays the Update TS Object
OBIDXLAT Display panel or the Update IX Object OBIDXLAT Display panel (depending on whether the object line item is a table space or index space) where you can update OBID translation settings.

Output DSN
Either a VSAM LDS name or pre-existing sequential file to hold the output of the operation on the object.

Part
Indicates how JCL is to be generated with respect to partitions, if present. Valid values are:

ALL
Valid for partitioned and non-partitioned table spaces. For partitioned table spaces, JCL is not generated at the partition level, all partitions are included.

PART
For partitioned table spaces, JCL is generated at the partition level for all partitions. For non-partitioned table spaces, this value works the same as ALL.

0
The table space is non-partitioned.

n
The partition number to be included, where n is a non-zero positive number.

Note: If you add DB.TS with PART=ALL to the same object profile with PART=PART, then PART=ALL will be used and PART=PART will be ignored. Additionally, for the same DB specified with PART=ALL, if you add the DB with wildcard Y and add the same DB again to the same object profile with a DB.TS and wildcard N, wildcard Y is always used and wildcard N is ignored.

Process Clone
(Db2 V9 and higher only) Indicates whether the clone tables for the listed objects are to be processed. This option is set when you add table spaces or indexes to the object profile, but can be modified on this panel. This option is not available for objects selected by volume. Valid values are:

Y
The clone tables for the listed objects are processed.

N
The clone tables for the listed objects are not processed.

Process IX
Indicates whether all of the indexes associated with a table space are included in the object profile. Db2 Change Accumulation Tool index processing is affected by the settings specified in object profiles and utility profiles. Valid values are:

Y
All indexes associated with a table space are included in the object profile.

N
Not all indexes associated with a table space are included in the object profile.

Process RI
Indicates whether the referentially dependent table spaces for the listed objects are processed. This option is set when you add table spaces to the object profile but can be modified on this panel. Valid values are:

Y
The referentially dependent table spaces for the listed objects are processed.
The referentially dependent table spaces for the listed objects are not processed.

Profile
The profile name.

PSID Pair
The pageset ID of the source and a field in which users can type the target PSID.

RBA/LRSN
The RBA/LRSN of the override full image copy data set (required if you specified a full image copy in the Input DSN field).

Repopulate
Indicates whether the user wants to edit (populate) the lower portion of the Update Object OBIDXLAT Display panel to define source OBIDs, target OBIDs, and source table names.

Source OBID
A list of source object IDs that exist in the table space (corresponding source table name is shown under the Source Table Name column).

Source Table Name
The name of the source table.

Space Name
The source table space name.

Target OBID
A list of target object IDs.

Type
The object type. Valid values are:
TS Table space
IX Index

User
The current user ID.

Volume/IX Crtr/DB Name
For table spaces, this column contains the database name or mask. For indexes, this column contains the index creator name or mask.

Note: Volumes do not apply to Db2 Change Accumulation Tool.

Wild Card
Indicates whether the objects in a line item were selected using wildcards. Valid values are:
Y The objects were selected using wildcards.
N The objects were not selected using wildcards.

---

**Updating an object profile**

Update an object profile to add, delete, or modify the objects it contains.

**Procedure**
1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the Option field and press Enter.
2. Type U in the Cmd line next to the object profile you want to update and press Enter.
The Update Objects Profile Display panel is displayed.

```
GGC$OPRU V3R1    ---- Update Object Profile Display    --- YYYY/MM/DD HH:MM:SS
Option ====>     Scroll ====> PAGE

Commands: Explode - View all objects.
Line Commands: A - Add  D - Delete  E - Explode  U - Update  R - Repeat
Creator: USERA    Profile: GGC$OBJPR1    User: USERA
Description:  Share Option U (U - Update, V - View, N - No)  Row 1 of 3

Volume / Wild - Process - OBID Inc/IX DB Name/IX Crtr/IX Name/
Cmd Type Card IX RI Clone Xlat Exc TS Crtr DB Name TS Name
TS N N N N N INC ABPSTC DBABC1 TSABC1
TS N N N N N INC ABPSTC DBABC2 TSABC2
TS N N N N N INC ABPSTC DBABC3 TSABC3
******************************************************************************
```

**Figure 42. Update Object Profile Display panel**

3. You can now update the object profile in the following ways:
   - To add an object profile line, type **A** in the **Cmd** field press Enter. When you issue this line command, the Add Objects to the Object Profile panel is displayed, which enables you to add table spaces and indexes to your object profile.
   - To delete an object from the object profile, type **D** in the **Cmd** field next to an object you want to delete and press Enter.
   - To generate a list of all the objects included by an object profile line, type **E** in the **Cmd** field next to the object of interest and press Enter. The Explode Object Profile Display panel is displayed which shows all objects for the object profile line that are included in the object profile either specifically or through the use of wildcards.
   - To generate a list of all the objects included by the object profile (instead of only a single object profile line), type **EXPLODE** in the Option line and press Enter. The Explode Object Profile Display panel is displayed, which shows all objects for the object profile that are included in the object profile either specifically or through the use of wildcards.
   - To update an object profile line, type **U** in the **Cmd** field next to the object of interest and press Enter.
   - To repeat an object profile line, type **R** in the **Cmd** field next to the object profile line you want to repeat and press Enter.
   - To change the share option for the object profile, type the appropriate value in the **Share Option** field and press Enter. Valid values are:
     - **U** The object profile can be updated by other users.
     - **V** The object profile can be viewed but not updated by other users.
     - **N** The object profile can be not be viewed or updated by other users.

4. Modify the object profile as needed and press PF3 to return to exit.
   A message is displayed that confirms your changes:

```
GGCM090I - Profile "USERA.GGC$OBJPR1" saved.
```

**Figure 43. Profile saved message**
Viewing an object profile

View an object profile to see the objects it includes.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the **Option** field and press Enter.
2. Type **V** in the **Cmd** line next to the object profile you want to view and press Enter.

   The View Object Profile Display panel is displayed:

   ![Figure 44. Update Jobs Profile Display panel](image)

3. If you want to view OBIDXLAT information, type **V** in the **OBID XLAT** column for a line item and press Enter.

   The View Object OBIDXLAT Display panel is displayed:

   ![Figure 45. View Object OBIDXLAT Display panel](image)

Deleting an object profile

Delete an object profile that is no longer needed.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the **Option** field and press Enter.
2. Type D in the Cmd line next to the profile you want to delete and press Enter.
3. Type Y in the Delete field to confirm the deletion and press Enter.
   - If the object profile you want to delete is included in a job profile, the following warning message is displayed:

```
WARNING WARNING
GGCS$PRFRW
OBJJS profile: profile_name
is included in 1 job profiles.

If you delete this profile, it will still be included in the job profiles and you will receive execution errors when executing the job profiles.

Confirm delete of OBJJS profile:
profile_name
Delete 'N' (Yes/No)
```

*Figure 46. Deletion Warning*

... Warning ...

**Renaming an object profile**

Rename an object profile to clarify its purpose.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the Option field and press Enter.
2. Type R in the Cmd line next to the object profile you want to rename and press Enter. The Rename OBJJS Profile panel is displayed:

```
Rename OBJJS Profile
GGCS$PRFR
Existing Profile:
Creator . . . : USERA
Profile Name : GGCOBJPR1
Description . . :

-----------------------------------------------------
New Profile:
Creator . . . : USERA
Profile Name . : GGCOBJPR2
Description . .
```

*Figure 47. Rename OBJJS Profile panel*

3. In the Profile Name field in the New Profile section of the panel, type the new profile name.
4. (Optional) In the Description field in the New Profile section of the panel, type a description of the new profile.
5. Press Enter.
6. Type Y in the Rename field to confirm the renaming of the object profile and press Enter.
Exporting an object profile

Export an object profile to use it elsewhere.

Procedure

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the Option field and press Enter.
2. Type E in the Cmd line next to the object profile you want to export and press Enter. The Export Options panel is displayed:

   ![Export Options panel](image)

3. Specify the appropriate values for your objectives.
   a. In the Export SSID field, specify the target SSID to which the object profile is exported. If you choose not to export to a data set, the new profile is directly exported to this subsystem.
   b. In the Export to Data Set field, specify the data set to which the object profile is exported.
   c. In the Create Export Data Set field, specify one of the following values:
      - Y Create the export data set.
      - N Does not create an export data set. You can instead use an existing data set. Existing data sets must be FB type data sets with an LRECL of 4096.
   d. In the Data Set Name field, specify the data set name to which the object profile is exported.
   e. In the Member field, specify the partitioned data set (PDS) member to which the object profile is exported.
4. Verify that the object profile shown at the bottom of the Export Options panel is the one you want to export. These read-only values are shown for the object profile:
   - **Type** The type of profile you are exporting. The value shown in this column is OBJ for an object profile.
   - **Name** The name of the object profile.
   - **Creator** The creator ID for the object profile.
   - **Upd** The update option for the object profile.
   - **Status** The status of the object profile.
5. Press Enter. The following message is displayed to confirm the export:
**Importing an object profile**

Import an object profile that was exported previously.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the **Option** field and press Enter.
2. Type I in the **Cmd** line next to the object profile you want to import and press Enter. The Import Dataset panel is displayed:

   ![Import Dataset panel](image)

   **Figure 49. Import Dataset panel**

3. Specify the appropriate values as appropriate for your objectives.
   a. In the **Target SSID** field, specify the SSID from which you want to import the profile.
   b. In the **Source Data Set Name** field, specify the data set name from which you want to import the profile.
   c. In the **Member** field, specify the partitioned data set (PDS) member from which the profile is to be imported.
4. Press Enter. The following message is displayed to confirm the import:

   `GGCM152I - Import/Export Successful`

**Performing a quick build**

Perform a quick build to quickly generate a utility job for specified objects.

**Before you begin**

To run Db2 Change Accumulation Tool jobs, users must be authorized to use USS on the z/OS machine.

**About this task**

The quick build feature uses similar options to those available for job profiles, but a quick job is not saved as a job profile. A quick build job cannot be retrieved or edited after you finish the quick build process. However, you can always save and edit the generated JCL, if desired.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the **Option** field and press Enter.
2. Type Q in the **Cmd** field and press Enter. The Update Utility Profile Options panel is displayed:
Figure 50. Update Utility Profile Options panel

3. Specify the utility profile options as needed for your objectives and press Enter.
   For more information about the utility profiles, see “Creating a utility profile” on page 137.

4. Press PF3. The Generation Options panel is displayed:
Figure 51. Generation Options panel

5. Specify the job generation options as needed for your objectives.
   a. Skip the **Autonomic Director Options** fields (including **Autonomic Type**, **Select Maintenance Window**, and **Selected Maintenance Window**). These fields are not used by Db2 Change Accumulation Tool.
   b. In the **Update Setup Override Options** field, specify one of the following values:
      
      - **Y** Display the Override Setup Options panel after you complete the Generation Options panel.
      - **N** Do not display the Override Setup Options panel after you complete the Generation Options panel.
   c. Skip the **Update Template/Listdef/Option parms** field. This field is not used by Db2 Change Accumulation Tool.
   d. Skip the **Update Job Group Break Down Options** field. This field is not used by Db2 Change Accumulation Tool.
   e. Skip the **Update Notifications** field. This field is not used by Db2 Change Accumulation Tool.
   f. In the **Automatically Gen GDG Base** field, type the GDG (Generation Data Group) limit to use for image copy data sets if a GDG base does not already exist. Valid values are 0 to 255. If you specify a value of 0, a GDG base is not automatically created. If your site is not SMS-managed, and you are
required to include a model DSCB in your JCL, then the model DSCB name
must be entered in the Enter DB2 System Parameters screen.

g. Skip the **Load Balance jobs by** field. This field is not used by Db2 Change
Accumulation Tool.

h. Skip the **Capture run times for Load Balancing** field. This field is not used
by Db2 Change Accumulation Tool.

i. In the **Start spaces in Utility/Read Only** field, specify one of the following
values:

- **U** In Db2 Change Accumulation Tool the U setting is synonymous with
  R (start/stop steps are generated, this causes the objects to be placed
  in the stopped status so the product can operate on the VSAM data
  sets).

- **R** Start/stop steps are generated. This causes the objects to be placed
  in the stopped status so the product can operate on the VSAM data
  sets.

- **N** Start/stop steps are not generated.

j. Skip the **Prefix Utility ID with jobname** field. This field is not used by Db2
Change Accumulation Tool.

k. Skip the **Preview Exception Report** field. This field is not used by Db2
Change Accumulation Tool.

l. In the **Set JCL member equal to jobname** field, type Y to set the JCL
member equal to the job name; otherwise type N.

m. In the **Generate Job when Errors encountered** field, specify one of the
following values:

- **Y** Generate the job when errors are encountered.

- **N** Do not generate the job when errors are encountered.

- **W** Generate the job with warnings when errors are encountered.

n. Skip the **Evaluate Multiple Exception Profiles** field. This field is not used
by Db2 Change Accumulation Tool.

o. In the **Recall migrated spaces** field, specify whether or not to recall
migrated spaces during the job build. When spaces have been migrated to
tape, HRECALLs are issued when the job is built. The recalls are organized
for maximum tape mounting efficiency. Valid values are:

- **Y** Recall migrated spaces during job build.

- **N** Do not recall migrated spaces during job build.

p. Skip the **Use DSNACCOR Exception Table** field. This field is not used by
Db2 Change Accumulation Tool.

q. (Optional) In the **Utility work data set highlevel** field, specify the utility
work data set high level qualifier. If you do not type a valid MVS alias in the
**Utility Work Data Set High Level** field, your utilities requiring work
data sets are built with temporary data sets. Using temporary work data
sets in utilities eliminates the utility from being restarted.

r. (Optional) In the **Pre-Generation User Exit Name** field, specify the
pre-generation user exit name.

s. (Optional) In the **Post-Generation User Exit Name** field, specify the
post-generation user exit name.

t. In the **Control Card Data Set** field, specify the control card data set.
u. (Optional) In the **Retrieve Jobcard Data Set/Member** field, specify the data set and member from which to retrieve jobcard and comments. At build time, the job card is retrieved from the data set instead of from the job build panel. The data set can include one job card and as many comment cards as desired. A unique job name is generated by incrementing the last character of the job name provided in the job card.

v. In the **Jobname Template Override byte** field, specify how Db2 Change Accumulation Tool generates unique job names. The job name originates either from the Build Job panel or from the data set you specify in the **Retrieve Jobcard and Comments from** field. Each character in the original job name is replaced by the values you specify in the **Override Byte** field to generate a unique job name. A blank **Override Byte** template indicates that the character in that position in the original job name stays in place.

6. Press PF3 to exit. The Build Job panel is displayed:

![Build Job Panel](image)

**Figure 52. Build Job panel**

7. Specify the build job options as needed for your objectives.

   a. In the **Build Online or Batch** field, specify one of the following values:

      O (Default) Build the job online. If you choose to build the job online, Db2 Change Accumulation Tool checks the objects and builds the Db2 Change Accumulation Tool job immediately.

      B Build the job in batch. If you choose to build the job in batch, Db2 Change Accumulation Tool builds a job that, when executed, builds the Db2 Change Accumulation Tool job.

   b. In the **Edit Generated Job** field, specify one of the following values:

      Y (Default) Edit the job after it has been generated. The job appears in an edit session after it has been generated.

      N Do not edit the job after it has been generated.

   c. In the **Schedule Job** field, specify one of the following values:

      Y Use the Db2 administrative task scheduler to schedule the job (that is specified in the **Member** field).

      N Do not use the Db2 administrative task scheduler to schedule the job (that is specified in the **Member** field).

   d. In the **Build Job in Data Set** field, type the fully qualified data set name where you want to save the generated job. This data set must exist and can be sequential or a PDS. In online mode, this data set holds the generated Db2 Change Accumulation Tool job. In batch mode, this data set holds the batch JCL to generate the Db2 Change Accumulation Tool job.
e. If the data set to hold the generated job is a PDS, in the **Member** field, type a member name for the job output here. If the member does not exist, Db2 Change Accumulation Tool will create it.

f. In the **Job Cards** field, type a valid job card for your site.

8. Press Enter to build the job.

---

**Viewing job profiles for an object profile**

View job profiles for a selected object profile.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 1 in the **Option** field and press Enter.

2. In the **Cmd** field next to the object profile for which you want to see job profiles, type J and press Enter. The Jobs Display panel is displayed, showing the job profiles that include the selected object profile:

   ![Jobs Display panel](image1)

   **Figure 53. Jobs Display panel**

3. To view a job profile, in the **Cmd** line next to the job profile of interest, type V and press Enter. The View Jobs Profile Display panel is displayed:

   ![View Jobs Profile Display panel](image2)

   **Figure 54. View Jobs Profile Display panel**

4. Press PF3 to exit.
Using the EXPLODE command

The EXPLODE command is valid on the Update Object Profile Display. When you issue the EXPLODE command, a list of all the objects that meet the profile specifications is shown. The EXPLODE command provides an easy way to see the list of objects that meet wildcard, include, exclude, and processing specifications.

For example, if you used wildcards to include objects, the EXPLODE command shows all items that match the wildcards. If objects were excluded in the profile, these objects will not appear in the exploded list. You can select one or more objects on the exploded list to exclude them from the profile.

Using the EXPLODE command for an object profile line

Use the EXPLODE command for an object profile line.

When you type E next to an object line in the profile and press Enter, all items that meet the specifications for the line item are displayed separately.

The following figure shows the Update Object Profile Display panel prior to issuing the E line command:

![Figure 55. Update Object Profile Display panel](image)

After you type E in the CMD field next to the table space and press enter, the Explode Object Profile Display panel displays, as shown in the following figure:

![Figure 56. Explode Object Profile Display panel](image)
After the exploded list is displayed, you can type the $ line command to exclude the object from the profile.

**Using the EXPLODE command for an object profile**

Use the EXPLODE command for an object profile.

When you issue the EXPLODE command in the Option line, all items in the profile are listed individually.

The usage of the EXPLODE primary command is shown in the following figure:

![Figure 57. Profile display (before issuing EXPLODE primary command)](image)

When you press Enter, the exploded list appears as shown in the following figure:

![Figure 58. Profile Display (after issuing EXPLODE primary command)](image)

Once the exploded display appears, the $ line command can be used to exclude the object from the profile.

**Recovering to a different table space**

The OBIDXLAT feature uses WRITE_TO_VSAM to recover the tables within an image copy to a different VSAM/table space than the one indicated in the generated logs. This provides an easy way of keeping in sync table images.
Before you begin

Note:
- When FORCE_COPIES keyword is used with OBIDXLAT WTV on a partitioned table space with LOB data type, then the data in Target DB.TS will be in sync with the Source for all partitions. If FORCE_COPIES is not used, any partitions for which there was no log activity after the last image copy will not undergo OBIDXLAT to the Target.
- When using OBIDXLAT WTV on a segmented (non-partitioned) multi data set table space, it is necessary to specify only the .A001 data set in the XLAT_DSN control card. Db2 Change Accumulation Tool will allocate additional .A002, .A003,... data sets if required.
- OBIDXLAT cannot be performed on XML multi-versioning objects.

The recovery to a different table space is accomplished using a translation facility that incorporates OBID translation into Db2 Change Accumulation Tool. You can input DSN1COPY/obidxlat control cards for each SPACE(). If present, the DSN1COPY/obidxlat control cards are used to translate the object (DBID / PSID / OBID).

Note: The target can be either in the same subsystem or a different subsystem.

For more information about the OBIDXLAT feature, see “Recover to a different table space (OBIDXLAT)” on page 7 and “Facilitation of the identification of target OBID information” on page 8.

Related concepts:
- “Recover to a different table space (OBIDXLAT)” on page 7
- “Facilitation of the identification of target OBID information” on page 8

Db2 Change Accumulation Tool facilitates the identification of target OBID information when recovering to a different table space via OBIDXLAT.

Updating OBIDXLAT settings for table space objects
Update OBIDXLAT settings to recover to a different table space.

Before you begin

When using OBIDXLAT functionality, note the following:
1. When doing a write to VSAM OBIDXLAT, the target DB.TS should be stopped and we recommend that you do a rebuild index for the target DB.TS. Because Db2 Change Accumulation Tool does not try to connect to the target DB.TS, it will not generate START/STOP steps for the target DB.TS.
2. A write to VSAM OBIDXLAT from data sharing to non-data sharing (and vice versa) is not supported (one has RBAs in the pages, the other LRSNs, and they are thus not interchangeable).
3. For all tables, use the OBID from SYSIBM.SYSTABLES (source and target), including BASE LOB tables.
4. For AUXILLIARY LOB table spaces, use the OBID from SYSIBM.SYSTABLESPACE (source and target) instead of the OBID from SYSIBM.SYSTABLES.
5. For target SSID, DB, TS, and CREATOR, note that if any of these fields are not provided, the data from the **Source** field will be used to search for the target to determine the target SSID, DB, TS, or CREATOR and to auto-populate the **OBID**, **DBID**, and **PSID** fields.

**Procedure**

1. **Access the Update Object Profile Display panel.** For information on accessing the Update Object Profile Display, see “Updating an object profile” on page 114.

2. **Specify U in the **OBID Xlat** column for the line item of interest and press Enter.** If the object type is table space (that is, the value **TS** is shown in the **Type** column on the Update Object Profile Display panel), the Update TS Object OBIDXLAT Display panel displays:

![Update TS Object OBIDXLAT Display](image)

**Figure 59. Update TS Object OBIDXLAT Display**

The following commands are available on this panel:

**Refresh**

Refreshes the panel content.

The following fields display on this panel:

**Creator**

The profile creator.

**Profile**

The profile name.

**User**

The current user ID.

**Description**

The profile description.

**DB2 SSID Pair**

The source and target Db2 SSIDs. The first Db2 SSID is the source Db2 SSID. It is display-only and is shown in white text.

The second Db2 SSID is the target Db2 SSID. Db2 Change Accumulation Tool connects to the Target Db2 instead of the source Db2, if a Target Db2 is provided. Db2 Change Accumulation Tool reads the table names of the target table space, matches them to the source table names, fetches the corresponding OBIDs, and fills them in automatically. If connecting to the target SSID is not possible in the
current TSO context and the OBIDs need to be filled in manually, you can generate a job that, when run on the other LPAR/machine/etc., produces a small report of all of the OBIDs from a list of DB.TS combinations. To generate this job, specify Y in the OBID Report Job Generation field on the Update Utility Profile Options panel.

**Note:** The first Db2 SSID (the source Db2 SSID) corresponds to the value specified in the DB2 Subsystem ID field on the IBM DB2 Change Accumulation Tool main menu (GGC$MAIN). If the Db2 SSID is on the current LPAR, Db2 Change Accumulation Tool connects to the Source Db2 and reads the table names and creator names of the source table space, matches them to the target table and creator names, fetches the corresponding OBIDs, and fills them in automatically.

**DB Pair**
The source and target database names.

**Note:** The source DB, shown first in white text, is known from the line item for which the user selected to update OBID Xlat information (on the Update Object Profile Display panel, GGC$OPRU). The target DB can be defined as appropriate in the available field. The target DB input field accepts up to 8 bytes.

**TS Pair**
The source and target table space names.

**Note:** The source TS, shown first in white text, is known from the line item for which the user selected to update OBID Xlat information (on the Update Object Profile Display panel, GGC$OPRU). The target TS can be defined as appropriate in the available field. The target TS input field accepts up to 8 bytes.

**DBID Pair**
Displays the database ID of the source and a field in which you can type the target database ID.

**PSID Pair**
Displays the pageset ID of the source and a field in which you can type the target pageset ID.

**Target Creator**
The target table creator name. This field is scrollable since it accepts up to 128 bytes as input. The characters < and > display to the right of the scrollable field to indicate that left/right scrolling is available. To enter long input into the field, you can type your input and press PF11 to scroll right (the cursor must be within the field when the user presses PF11). You can then type the additional characters and repeat the process (pressing PF11 to scroll as necessary to complete the entry of the value in the field). To scroll left, you can press PF10 to scroll back through what you have typed previously in the field. Alternatively, you can type EXPAND on the option line, place your cursor in the Target Creator field and press Enter to display a panel where the entire 128-byte value can be specified.

**Note:** If you wish to resize this field (since it is a 128-byte field), you do so using the CSIZE column display function.

**Input DSN**
(Optional) The fully qualified Db2 data set name of a full image copy
to be used instead of reading SYSCOPY. If you specify a value for Input DSN, you must also fill in the RBA/LRSN for the full image copy in the RBA/LRSN field.

**Note:** If the Input DSN field is not specified, Db2 Change Accumulation Tool will instead read SYSCOPY.

**RBA/LRSN**

The RBA/LRSN of the override full image copy data set (required if you specified a full image copy in the Input DSN field).

**Note:** This field accepts a 10 byte hexadecimal string. Six byte RBAs are stored 00000000xxxxxxxxxxxx and six byte LRSNs are stored 00xxxxxxxxxxxx000000.

**Incremental Image Copies**

Indicates whether to include incremental image copies when performing the translation. If you specify this option, the incremental image copies you specify will be used instead of increments from SYSCOPY.

To specify values for the incremental image copies (DSNs and RBAs/LRSNs) you must specify a Y in the Incremental Image Copies field and press Enter. The Update Incremental IC Display panel displays where you can specify incremental DSN and RBA/LRSNs. Upon exiting the Update Incremental IC Display panel, you return to the Update Object OBIDXLAT Display panel and the **Incremental Image Copies** field is then automatically set to Y.

Valid values for the **Incremental Image Copies** field are Y (include incremental image copies), N (do not include incremental image copies), and U (update the RBA/LRSN settings for the incremental image copies).

**Output DSN**

Either a VSAM LDS name or pre-existing sequential file to hold the output of the operation on the object.

**Alt Output DBNAME.TSNAME**

(Optional) An alternate DBNAME.TSNAME to be used in Rebuild Index All Tablespace DB.TS on the rebuild index process. If left blank, the object name from the object profile is used instead. This allows for name overriding. If the objects in the build contain no indexes or the objects don’t have OBIDXLAT processing turned on, the secondary job will not be produced.

**Source OBID**

A list of source object IDs that exist in the table space (corresponding source table name is shown under the **Source Table Name** column).

**Target OBID**

A list of target object IDs.

**Source Creator**

The creator of the source table. This field is 128 bytes.

**Source Table Name**

The source table name. This field is 128 bytes.

**Note:** To view this column, you may have to scroll to the right (PF11).
What to do next

The database, space name, source DBID, source PSID fields are auto-populated. Enter the target DBID, target PSID, output DSN and press Enter. The scrollable area displays a line for each table in the source table space. You can then specify the appropriate target OBIDs.

After specifying the necessary translation information on this panel and then building a job using the object profile (with OBID Xlat set to Y), the appropriate control cards are added to that job to perform the OBID translation. When the job is submitted the translation is performed.

Note: After performing an OBID translation, if you leave the OBID Xlat option set to Y, the OBID translation will be performed again whenever the object profile is used again. For this reason, you should consider setting the OBID Xlat option to N after performing the OBID translation. Also note that when you update the OBID Xlat settings (after specifying U to access the Update Object OBIDXLAT Display) the OBID Xlat field on the Update Object Profile Display changes to a Y. If you do not change anything on the Update Object OBIDXLAT Display, the OBID Xlat field on the Update Object Profile Display will remain unchanged.

Updating OBIDXLAT settings for index space objects

Update OBIDXLAT settings to recover to a different table space.

Before you begin

When using OBIDXLAT functionality, note the following:

- When doing a Write to VSAM OBIDXLAT, the Target DB.IS should be stopped. Since Db2 Change Accumulation Tool does not try to connect to the Target DB.IS, it will not generate START and STOP steps for the Target DB.IS.
- A Write to VSAM OBIDXLAT from data sharing to non-data sharing (and vice versa) is not supported (one has RBAs in the pages, the other LRSNs, and they are thus not interchangeable).
- For Target SSID, DB and IS, note that if any of these fields are not provided, the data from the Source field will be used to search for the Target to determine the Target SSID, DB or IS and to auto-populate the OBID, DBID, and PSID fields.
- For INDEX OBIDXLAT, two sets of OBID(s) are required.
  - For Index, use the OBID from SYSIBM.INDEXES (SOURCE and TARGET).
  - For Table that has this index, use the OBID from SYSIBM.SYSTABLES (SOURCE and TARGET).

Procedure

1. Access the Update Object Profile Display panel. For information on accessing the Update Object Profile Display, see “Updating an object profile” on page 114.
2. Specify U in the OBID Xlat column for the line item of interest and press Enter. If the object type is table space (that is, the value TS is shown in the Type column on the Update Object Profile Display panel), the Update TS Object OBIDXLAT Display panel displays:
The following commands are available on this panel:

**Refresh**

Refreshes the panel content.

The following fields display on this panel:

**Creator**

The profile creator.

**Profile**

The profile name.

**User**

The current user ID.

**Description**

The profile description.

**DB2 SSID Pair**

The source and target Db2 SSIDs. The first Db2 SSID is the source Db2 SSID. It is display-only and is shown in white text.

The second Db2 SSID is the target Db2 SSID. DB2 Change Accumulation Tool connects to the Target Db2 instead of the source Db2, if a Target Db2 is provided. Db2 Change Accumulation Tool reads the table names of the target table space, matches them to the source table names, fetches the corresponding OBIDs, and fills them in automatically. If connecting to the target SSID is not possible in the current TSO context and the OBIDs need to be filled in manually, you can generate a job that, when run on the target LPAR/machine/etc., produces a small report of all of the OBIDs from a list of DB.TS combinations. To generate this job, specify **Y** in the OBID Report Job Generation field on the Update Utility Profile Options panel.

**Note:** The first Db2 SSID (the Source Db2 SSID) corresponds to the value specified in the DB2 Subsystem ID field on the Db2 Change Accumulation Tool main menu (GGC$MAIN). If the Db2 SSID is on the current LPAR, Db2 Change Accumulation Tool connects to the Source Db2 and reads the table names and creator names of the source table space, matches them to the target table and creator names, fetches the corresponding OBIDs, and fills them in automatically.

**DBID Pair**

Displays the database ID of the source and a field in which you can type the target database ID.
ISOBID Pair
A pair of index space OBID values for the Source and Target index spaces, respectively.

DB Pair
A pair of database values for the Source and Target databases, respectively.

IS Pair
A pair of index space values for the Source and Target index spaces, respectively.

Input DSN
(Optional) The fully qualified Db2 data set name of a full image copy to be used instead of reading SYSCOPY. If you specify a value for Input DSN, you must also fill in the RBA/LRSN for the full image copy in the RBA/LRSN field.

Note: If the Input DSN field is not specified, Db2 Change Accumulation Tool will instead read SYSCOPY.

RBA/LRSN
The RBA/LRSN of the override full image copy data set (required if you specified a full image copy in the Input DSN field).

Note: This field accepts a 10 byte hexadecimal string. Six byte RBAs are stored 00000000xxxxxxxxxxxx and six byte LRSNs are stored 00xxxxxxxxxxxx000000.

Output DSN
Either a VSAM LDS name or pre-existing sequential file to hold the output of the operation on the object.

Alt Output DBNAME.ISNAME
(Optional) An alternate DBNAME.ISNAME to be used in Rebuild Index All Tablespace DB.TS on the rebuild index process. If left blank, the object name from the object profile is used instead. This allows for name overriding. If the objects in the build contain no indexes or the objects don’t have OBIDXLAT processing turned on, the secondary job will not be produced.

Source OBID
A list of source object IDs that exist in the index space (corresponding source table name is shown under the Source Index/Table Name column).

Target OBID
A list of target object IDs.

Source Creator
The creator of the source index or table. This field is 128 bytes.

Source Index/Table Name
The source index or table name. This field is 128 bytes. To view this column, you may have to scroll to the right (PF11).

Note: The Source Index/Table Name field displays the index name for index objects on the GGC$OXL and GGC$OXLI panels.
What to do next

The database, index space name, source DBID, source PSID fields are auto-populated. Enter the target DBID, target PSID, output DSN and press Enter. The scrollable area displays a line for each table in the source table space. You can then specify the appropriate target OBIDs.

After specifying the necessary translation information on this panel and then building a job using the object profile (with OBID Xlat set to Y), the appropriate control cards are added to that job to perform the OBID translation. When the job is submitted the translation is performed.

Note: After performing an OBID translation, if you leave the OBID Xlat option set to Y, the OBID translation will be performed again whenever the object profile is used again. For this reason, you should consider setting the OBID Xlat option to N after performing the OBID translation. Also note that when you update the OBID Xlat settings (after specifying U to access the Update Object OBIDXLAT Display) the OBID Xlat field on the Update Object Profile Display changes to a Y. If you do not change anything on the Update Object OBIDXLAT Display, the OBID Xlat field on the Update Object Profile Display will remain unchanged.

Updating incremental image copy settings

If you include incremental image copies when performing an OBID translation, you must specify values for the incremental image copies (DSNs and RBAs/LRSNs).

Procedure

1. Access the Update Object Profile Display. For information on accessing the Update Object Profile Display, see “Updating an object profile” on page 114.
2. Specify U in the OBID Xlat column for the line item of interest and press Enter. The Update Object OBIDXLAT Display panel appears.
3. Specify an Input DSN, Output DSN, DBID/PSID pair, and set Incremental Image Copies to U.
4. Press Enter. The Update Incremental IC Display panel displays as shown in the following figure:

   GGC$OINC V3R1 ----- Update Incremental IC Display ----- YYYY/MM/DD HH:MM:SS
   Option ==> Scroll ==> PAGE
   Line Commands: D - Delete I - Insert
   Creator: USERA Profile: GGC OBJ PROF 1 User: USERA
   Description:
   Database: ABJKLY Space Name: ABJKLY
   Row 1 of 1
   *********************************************************************************************
   Cmd    Incremental DSN      RBA/LRSN
   *********************************************************************************************

   Figure 61. Update Incremental IC Display

   The following fields display on this panel:

   Creator
   The profile creator.

   Profile
   The profile name.
User    The current user ID.

Description
The profile description.

Database
The source database name.

Space Name
The source table space name.

Incremental DSN
The incremental DSN that is to be included in OBIDXLAT processing.

RBA/LRSN
The RBA/LRSN for the incremental DSN.

Note: This column displays a 10 byte hexadecimal string. Six byte RBAs are stored 00000000xxxxxxxxxxx and six byte LRSNs are stored 00xxxxxxxxxxxx000000.

The following line commands are available on this panel:

D (Delete)
Deletes the line from the list of incremental DSN and RBAs/LRSNs.

I (Insert)
Inserts a line on which you can specify an incremental DSN and corresponding RBA/LRSN.

Note: Newly inserted lines always appear at the top of the displayable data.

Generating rebuild index for TARGET on OBIDXLAT

Generate rebuild indexes for TARGET on OBIDXLAT.

Procedure
1. Configure the object profile. Setup OBIDXLAT information for Database.Tablespace on the GGC$OXL panel and Database.Indexspace information on the GGC$OXLI panel. Database.Tablespace and Dataspace.Indexspace OBIDXLAT information are required.
2. Configure the utility profile. Set the REBUILD INDEX option to 6 on the Update Utility Profile panel (GGC$UOPT).
3. Build the Job Profile. OBIDXLAT job will now be generated with Database.Tablespace, Database.Indexspace and REBUILD_INDEXES keyword.

Generating rebuild index for TARGET DB.TS on OBIDXLAT

Generate a DB2 REBUILD INDEX step for TARGET DB.TS on OBIDXLAT.

Procedure
1. Configure the object profile.
   a. On the Update Object Profile Display panel (GGC$OOPRU), set the Process IX field to Y.
   b. Set up OBIDXLAT information on the (GGC$OXL) panel and specify the Alt Output DBNAME.TSNAME.
2. Configure the Utility Profile.
a. On the Utility Profiles Options panel (GGC$UOPT), set the **REBUILD INDEX** option to **D**.

b. If the Source and Target SSID are different, then on the Utility Profiles Options panel (GGC$UOPT), key in the target SSID in the **OBIDXLAT Alternate DB2 SSID** field. If the source and target SSID are same then the field can be left SPACES.

3. Build the Job Profile The JCL member has two jobs. The first job is for **OBIDXLAT** and the second job is for the **REBUILD INDEX** with the target SSID and target DBNAME.TSNAME.
Chapter 7. Working with utility profiles

Utility profiles specify the options that determine the Db2 Change Accumulation Tool syntax produced when you build a Db2 Change Accumulation Tool job.

The utilities (or modes) that Db2 Change Accumulation Tool supports include:

**Mini log mode**
Use mini logs to shift the I/O time spent reading the Db2 log to non-critical times.

**Image copy mode**
Create image copies of a given database and table space or a set of table spaces.

**Recovery mode**
Select where changes are written to (image copies, VSAM files, or both) to perform recovery scenarios.

You can tailor utility profiles according to how you want to run Db2 Change Accumulation Tool. After you set up object profiles and utility profiles, you can pair them according to your needs using job profiles.

Topics:
- “Creating a utility profile” on page 168
- “Updating a utility profile” on page 169
- “Viewing a utility profile” on page 169
- “Deleting a utility profile” on page 171
- “Exporting a utility profile” on page 171
- “Importing a utility profile” on page 172

Creating a utility profile

Create a utility profile to specify the options you want to use with your Db2 Change Accumulation Tool job.

**Procedure**
1. On the IBM DB2 Change Accumulation Tool main menu, type 2 in the Option field and press Enter.
2. On the Utilities Profile Display panel, type C in the Cmd field and press Enter. The Enter New Utilities Profile Data panel is displayed:

```
Enter New Utilities Profile Data
GGCSUPRC
-----------------------------------------------
Creator . . . USERA
Profile Name .
Description .
Update Option . U (U - Update, V - View, N - No access)
```

*Figure 62. Enter New Utilities Profile Data panel*

3. In the Creator field, type the creator for the utility profile. This field contains your user ID but you can optionally modify it.
4. In the **Profile Name** field, type the name for the utility profile.

   **Note:** When defining a profile name, consider using a meaningful name such as "Mini Log DSN Collect" or "FIC DSN Collect".

5. In the **Description** field, type a description of the utility profile.

6. In the **Update Option** field, type the update option you want to use for the utility profile. Valid values are:
   - U Other users are allowed to update the utility profile.
   - V Other users are allowed to view the utility profile.
   - N Other users are not allowed to view or utility the object profile.

7. Press Enter. The Utility Profile Options panel is displayed.
Figure 63. Update Utility Profile Options panel

8. Specify the options as appropriate for your utility profile. Refer to these topics for more information:

- “Setting up a mini log mode utility profile” on page 152
- “Generating DSN for mini logs and image copies” on page 153
- “Setting up an image copy mode utility profile” on page 156
- “Setting up a WRITE_TO_VSAM utility profile” on page 160
- “Setting up a WRITE_TO_BOTH utility profile” on page 161
Utility profiles - fields and columns

This topic defines the fields and columns that are shown on the various panels relating to utility profiles.

Add Checkpoint Records to ML
Indicates whether checkpoint activities are to be included in mini log data sets. Valid values are:

- **Y**: Checkpoint records are added to mini logs.
- **N**: Checkpoint records are not added to mini logs. If you specify **N** in this field, then no mini log data set is created if it would only contain checkpoint record information.

*Note:* This field is only relevant when the **ML Control Card Level** is set to S (Space). It does not apply to a **ML Control Card Level** setting of **G** (Group).

Add SYSCOPY Rows On Complete
Indicates whether rows will be added to the SYSIBM.SYSCOPY catalog table upon completion of the Db2 Change Accumulation Tool process. Valid values are **Y** (adds rows to the SYSIBM.SYSCOPY catalog table upon completion) and **N** (does not add rows to the SYSIBM.SYSCOPY catalog table upon completion).

*Note:* If you use mini log mode, SYSCOPY rows are not involved and are therefore not added to the SYSIBM.SYSCOPY catalog table on completion. The value for the **Add SYSCOPY Rows on Complete** field must therefore be set to **N** if you use mini log mode.

Allow Above the Bar Memory
Includes the USE_ABOVE_THE_BAR keyword in Db2 Change Accumulation Tool syntax. Specifies whether Db2 Change Accumulation Tool will allow above the bar memory usage. Valid values are:

- **Y**: Allows above the bar memory usage. If you specify **Y** then the following fields become active:
  - **Primary Segments Alloc**: The number of segments (megabytes) of above the bar storage obtained initially.
  - **Secondary Segments Alloc**: The number of segments (megabytes) of above the bar storage obtained when the primary segments are used up.
  - **Maximum Secondary Alloc**: The limit placed on the number of secondary segments obtained. This stops runaway getmains by aborting if the limit is reached.

- **N**: Does not allow above the bar memory usage.

*Note:* This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.
Buffers in 31 Bit Storage
Includes the BUFFERS_IN_31_BIT keyword in Db2 Change Accumulation Tool syntax. Specifies whether to use 31 bit storage for buffers. Valid values are:

Y  Uses 31-bit storage for buffers.
N  Uses 24-bit storage for buffers.

Note: This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

Bypass SYSIBM.SYSLGRNX Proc
Indicates whether Db2 Change Accumulation Tool skips reading SYSIBM.SYSLGRNX and only reads the Db2 logs. Valid values are:

Y  Skips reading SYSIBM.SYSLGRNX and only reads the Db2 logs.
N  Does not skip reading SYSIBM.SYSLGRNX.

Note: This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

Check After Quiesce
Includes the CHECK_AFTER QUIESCE keyword in Db2 Change Accumulation Tool syntax. When Y is specified, this option causes Db2 Change Accumulation Tool to check space activity after the specified end point and, if activity is found, the End Point is set to C (TO_CURRENT).

Note:
• Check After Quiesce is valid for Mini Log, Image Copy, WRITE_TO_VSAM and WRITE_TO_BOTH when the space End Point of Q (Quiesce) is specified.
• Bypass SYSIBM.SYSLGRNX Proc cannot be set to Y when Check After Quiesce is set to Y. The reading of SYSLGRNX must be allowed.
• Check After Quiesce can be specified at S (Space) or G (Group) or at the job level.
• When Check After Quiesce is not applied at the space, group or job level, Q (TO QUIESCE) will be performed.
• Unified End Points In Group cannot be Y or W if you are using Check After Quiesce.

Note: This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

Check Data Operating Mode
Indicates if and when Db2 Change Accumulation Tool checks data page integrity. Valid values are N (do not check data page integrity), O (check data page integrity both before and after each log apply operation and before writing out a data page), and W (check data page integrity before writing a page). The default value for this field is W.

Continue on Errors
Causes most errors to be ignored and the processing to continue.
**Note:** If this option is specified and errors higher than RC=4 are encountered, they will be overridden and a RC=4 will be reported and the job will not fail. I/O errors and other serious issues (out-of-memory, for instance) will not be ignored and will still cause aborts.

**Note:** This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

**Creator**
Automatically displays the creator that was entered in the Enter New Utilities Profile Data panel.

**DB2 Rebuild Index Options**
(Optional) Causes Db2 Change Accumulation Tool to gather index information for any one table space and perform the index rebuilds using the Db2 REBUILD Utility after the table space page data is written. Valid values are:

- **Y** Gather index information for any one table space and perform the index rebuilds using the Db2 REBUILD Utility after the table space page data is written.
- **N** Do not gather index information.

**Description**
Text information about the utility profile.

**End Point**
Indicates the end point to use. Valid values are:

- **C** Includes the TO_CURRENT keyword in Db2 Change Accumulation Tool syntax. This option directs Db2 Change Accumulation Tool to read the log and incorporate data into the image copy up to the current point in time, which is the end of the log file.
- **Q** Includes the TO_QUIESCE keyword in Db2 Change Accumulation Tool syntax. This option directs Db2 Change Accumulation Tool to read the log and incorporate data into the image copy up to a specified quiesce point. If you specify **Q** in the **End Point** field, you are required to specify a value in the **Specified Hex End Point/Quiesce #** field.

**Notes:**
1. The RBA (relative byte address) chosen to be loaded into SYSCOPY is determined by rolling the RBA back to the start point of any in-flight URIDs. If there are none, the RBA may also be adjusted forward to the next SYSLOGRANGE start point (if there is one) or to the RBA of the last valid log record read from the log (if there are no further SYSLOGRANGE records). This allows Db2 Change Accumulation Tool not to have to verify the validity of a specified log point by attempting a read of that log record in the actual log and possibly incurring a tape mount, data set allocation, or extra I/O.
2. Only with the TO_QUIESCE option (option **Q**) will the RBA (retrieved from SYSCOPY) be considered to be validated. User-specified RBAs are not considered validated. This means that Db2 Change Accumulation Tool will load that validated...
RBA into SYSCOPY for a new image copy, but will still advance the RBA to a known valid point for user specified ones to avoid extra tape mounts, data set allocations, and I/O.

S  Includes the TOLOGPOINT keyword in Db2 Change Accumulation Tool syntax. This option indicates that an end point is to be specified. If you type S in the End Point field, then you must define a hexadecimal end point in the Specified Hex End Point/Quiesce # field.

T  Includes the TO_CONSISTENT_IC keyword in Db2 Change Accumulation Tool syntax. This option indicates that the last image copy is to be a share level change copy. Db2 Change Accumulation Tool considers the last share level change copy as the end point, derives a starting point from a further search in BSDS to obtain a checkpoint before the start point of the last share level change copy and attempts to create a consistent share level reference image copy. The user is not expected to provide a specific end point when using this keyword.

Note: The FORCE_COPIES keyword is not required when the TO_CONSISTENT_IC keyword is used and would be ignored.

Note: This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

Force write phase for IC/WTV
This control card duplicates the old image copy into a new image copy, even if no mini logs or log records are found following the last image copy. Valid values are:

Y  Inserts the FORCE_COPIES control card in Db2 Change Accumulation Tool JCL.

N  Does not insert the FORCE_COPIES control card in Db2 Change Accumulation Tool JCL.

Note:
• This option is applicable for WRITE_TO_COPIES, WRITE_TO_VSAM, and WRITE_TO_BOTH. For example, if you specify WRITE_TO_VSAM and there is no log activity since the last image copy, specifying the FORCE_COPIES option will cause Db2 Change Accumulation Tool to perform the write to VSAM regardless. If FORCE_COPIES is not used, any partitions for which there was no log activity after the last image copy, Db2 Change Accumulation Tool will not perform write to VSAM.
• When this option is used with OBIDXLAT WTV on a partitioned table space with LOB data type, then the data in Target DB.TS will be in sync with the Source for all partitions. If FORCE_COPIES is not used, any partitions for which there was no log activity after the last image copy will not undergo OBIDXLAT to the Target.

Note: This option is only valid for creating image copies, writing to VSAM data sets and writing to both a VSAM data set and an image copy. If Force Write Phase for IC/WTV is specified for mini log, it will be ignored.

IC Data Set Name Generation - Include in Profile
Indicates whether to run in image copy mode. Valid values are:
Y
Uses image copy mode. When the Db2 Change Accumulation Tool job is built, includes the WRITE_TO_COPIES control card in the JCL.

N
Excludes image copy data set name generation from the utility profile.

Note: A utility profile can specify mini log processing or image copy processing but not both. If you specify Y in the IC Data Set Name Generation - Update Options field, you must specify N in the ML Data Set Name Generation - Update Options field.

IC Data Set Name Generation - Update Options
Indicates whether you want to update the utility options for image copy data set name generation. Valid values are:

Y
Displays the Image Copy Options panel when you press Enter.

N
Skips updating the Mini Log Data Set Name Generation utility options.

Note: A utility profile can specify mini log processing or image copy processing but not both. If you specify Y in the IC Data Set Name Generation - Update Options field, you must specify N in the ML Data Set Name Generation - Update Options field.

Log Reader Copy Preference
Includes the LOG_COPY_PREFERENCE keyword in Db2 Change Accumulation Tool syntax. Specifies the order in which the archive and active log lists in the BSDS are to be scanned when Db2 Change Accumulation Tool searches for a log to satisfy a need for log records. The value you specify in this field must use the syntax R1 (archive log copy #1), R2 (archive log copy #2), A1 (active log #1), and A2 (active log #2). All four unique values must be specified, even if copy #2 is not used in Db2. For example:

A1A2R1R2
Scans the active logs before scanning the archive logs.

Note: This is not a recommended setting, as Db2 may attempt to open one of the active logs for output that Db2 Change Accumulation Tool is currently reading for input. This can result in an open error within Db2.

R1R2A1A2
(Default) Scans the archive logs first and uses archive logs when the same range exists in an archive and active log.

Note: This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

ML Control Card Level
Indicates the level (group or space) at which the mini log control cards are placed. Valid values are:

G
Places mini log control cards at the group level. When set to 6 (group) Db2 Change Accumulation Tool allocates mini log data sets once for the entire group. Additionally, when the ML Control Card Level field is set to 6, the Add Checkpoint Records to ML setting
does not influence the production of mini logs. Specifying 6 for the **ML Control Card Level** field when only checkpoint record information is available results in no mini log being created.

**S** Places mini log control cards at the space level. When the **ML Control Card Level** is set to **S** (space), Db2 Change Accumulation Tool allocates mini log data sets one at a time for each object during the course of the mini log run. Additionally, when the **ML Control Card Level** field is set to **S**, the **Add Checkpoint Records to ML** field determines whether or not checkpoint records are added to the mini logs. If **Add Checkpoint Records to ML** is set to **N**, then no mini log data set is created.

**ML Data Set 1 (and 2) Name Generation - Include in Profile**
Indicates whether to use mini log mode for the corresponding mini log data set. Valid values are:

**Y** Uses mini log mode; when the Db2 Change Accumulation Tool job is built, inserts the MINI_LOG_DSN_n, where n is 1 or 2, control card in the JCL.

**N** Does not use mini log mode.

**Notes:**
1. A utility profile can specify mini log processing or image copy processing but not both. If you specify **Y** in one of the **ML Data Set Name Generation - Include in Profile** fields, you must specify **N** in the **IC Data Set Name Generation - Include in Profile** field.
2. A utility profile can specify a Write Mode of **V** (WRITE_TO_VSAM). The Write Mode of **V** is a separate option from mini log or image copy processing. If you specify a Write Mode of **V**, you must specify **N** in the **ML Data Set Name Generation - Include in Profile** and **IC Data Set Name Generation - Include in Profile** fields.
3. The **Write Mode** of **B** is valid with Image Copy processing but not valid with mini log processing.
4. If mini log mode is used, you must specify **N** in the **Add SYSCOPY Rows on Complete** field.

**ML Data Set Name 1 (and 2) Generation - Update Options**
Indicates whether you want to update the utility options for Mini Log Data Set Name Generation for the corresponding mini log data set. If you specify **Y** in this field, the ML Image Copy DSN Generation panel displays when you press Enter. Valid values are:

**Y** Displays the ML Image Copy DSN Generation panel when you press Enter. You can then edit the data set name to be generated and used when Db2 Change Accumulation Tool creates mini logs.

**N** Skips updating the mini log data set name generation utility options.

**Notes:**
1. A utility profile can specify mini log processing or image copy processing but not both. If you specify **Y** in the **ML Data Set Name 1 (and 2) Generation - Update Options** field, you must specify **N** in the **IC Data Set Name Generation - Update Options** field.
2. A utility profile can also specify a Write Mode of **V** (WRITE_TO_VSAM). The Write Mode of **V** is a separate option from
mini log or image copy processing. If you specify a Write Mode of V, you must specify N in the ML Data Set Name Generation - Include in Profile field and the IC Data Set Name Generation - Include in Profile field.

3. The Write Mode of B is valid with Image Copy processing but not valid with mini log processing.

4. If mini log mode is used, you must specify N in the Add SYSCOPY Rows on Complete field.

ML Sharelevel
Indicates whether Db2 Change Accumulation Tool creates SHRLEVEL CHANGE mini logs or SHRLEVEL REFERENCE mini logs. Valid values are:

Reference
(Default) Creates SHRLEVEL REFERENCE mini logs.

Change
Creates SHRLEVEL CHANGE mini logs.

blank If the ML Sharelevel field is left blank, it defaults to Reference.

Number of PARALLEL log read / Number of PARALLEL log apply
Indicates the number of parallel log read and log apply tasks that can run where:

Number of PARALLEL log read
(Default 0) The number of parallel log read tasks. Valid values are integers, 0-16. If a value of 0 is specified for Number of PARALLEL log read, this means that a maximum of 1 task per data sharing group member will run at the same time. If a non-zero value is specified for Number of PARALLEL log read, then that number is the maximum number of parallel tasks that can run at the same time for log read. If there are more logs to read than the number of parallel tasks specified for Number of PARALLEL log read, a task to read the remaining logs will be launched as soon as a running task finishes and until all necessary logs have been read.

Number of PARALLEL log apply
(Default 1) The number of parallel log apply tasks. Valid values are integers, 1-10. When specifying a value for the number of parallel log apply tasks, you should consider the following:

If a single GROUP(...) set is present in the control cards:
If a single GROUP(...) set is present in the control cards, the value of log apply parallel tasks is used to break up the job into multiple GROUP(...) sets and start a log apply task for each set. Valid values for Number of PARALLEL log apply for a single GROUP(...) set:

1 A single group starts a single log apply task.

2-10 If there is a single GROUP(...) coded, and if Number of PARALLEL log apply is greater than 1, the code will internally break down the SPACE(...) sets into a maximum of Number of PARALLEL log apply GROUP(...) sets and will start one log apply task per GROUP(...). For example:
• If you specify a value of 10 for **Number of PARALLEL log apply** and there are only 5 SPACE(...) sets, Db2 Change Accumulation Tool divides the syntax into 5 GROUP(...) sets and 5 log apply tasks.

• If you specify a value of 5 for **Number of PARALLEL log apply**, Db2 Change Accumulation Tool divides the number of spaces between the groups evenly and then, if there are leftovers after attempting to divide them evenly among the allotted number of GROUP(...) sets, those leftovers go in the last GROUP(...) set. One log apply task is then generated for each GROUP(...) set.

If multiple GROUP(...) sets are present in the control cards:

**Remember:** If you use the online to generate a Db2 Change Accumulation Tool job, only one GROUP(...) set is generated. You can however manually code multiple GROUP(...) sets in your Db2 Change Accumulation Tool syntax. If you have manually coded multiple GROUP(...) sets in your JCL, the following considerations regarding the valid values of **Number of PARALLEL log apply** apply.

If multiple GROUP(...) sets are present in the Db2 Change Accumulation Tool syntax, the only valid value **Number of PARALLEL log apply** is 1 (it is not valid to specify a value of log apply tasks greater than 1 if there are multiple GROUP(...) sets). Valid values for \( y \) for a multiple GROUP(...) set:

\[ 1 \]

If **Number of PARALLEL log apply** the number of groups and the associated spaces assigned to them will be used to start multiple log apply tasks instead.

**OBID Report Job Generation**

Indicates whether Db2 Change Accumulation Tool generates JCL with a skeletal that runs a report program and builds the Db2 Change Accumulation Tool control cards. Valid values are:

\[ \begin{align*} Y & \quad \text{Generates JCL with a skeletal that runs a report program.} \\ N & \quad \text{(Default) Builds the Db2 Change Accumulation Tool control cards.} \end{align*} \]

When \( Y \) is specified in the **OBID Report Job Generation** field, the SSID that is used comes from the **OBIDXLAT Alternate DB2 SSID** field on the Utility Profile Options panel (if it is specified). When \( N \) is specified in the **OBID Report Job Generation** field, the current SSID is used. Additionally, each input line to the report program is the DBname and TSname of each object in the object profile. The report program connects to a Db2 SSID specified on the JCL and for each input line (DB.TS combination), it outputs:

• SSID
• DB
• TS
• DBID
• PSID
• all of the rows in SYSTABLES for that DB.TS combination (sorted by OBID) including Creator, Table Name, and OBID

When the job profile is generated with a utility profile set up for **OBID Report Job Generation**, the job is generated with the DBname and TSname of each object in the object profile (these are source objects, not target objects). Once the JCL is generated, you must make them target values and the JCL has to be run on the LPAR where the Target SSID resides.

**Note:** This option is valid only for report generation and does not apply when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

**Other LPAR Jobs Data Set**
The PDS to which Db2 Change Accumulation Tool outputs to during batch operation. For each object associated with a Db2 to which Db2 Change Accumulation Tool cannot connect, the template data set is used to create a sequence number update job. That sequence number update job can then be run on the Db2 to which Db2 Change Accumulation Tool cannot connect. The object profile screen allows for any number of Db2 subsystems in an object profile. For each group of objects associated with a Db2 subsystem ID, the sequence number job that is created into the LPAR job data set will use the value you specify in the **Member Prefix** field along with the Db2 subsystem ID as the output PDS member name.

**Profile**
Automatically displays the utility profile name.

**REBUILD INDEX**
(Optional) Specifies if Db2 Change Accumulation Tool is to rebuild indexes (for table space selections) and if so, the type of rebuild index to perform. Valid values are:

- **G** Indexes are rebuilt using the GGC rebuild index.
- **D** Indexes are rebuilt using the Db2 utility for rebuild index.
- **N** Indexes are not rebuilt.

**Repair Recover Pending Proc**
Specifies whether to remove the recover pending flag on table spaces that are written with a WRITE_TO_VSAM operation.

**Restore Before Point**
Includes the RESTORE_BEFORE keyword in Db2 Change Accumulation Tool syntax. Allows you to recover an object and avoid using a specific image copy as a recovery base. This causes the scan in SYSCOPY to start at the specified point and proceed backwards instead of always starting at the end (and proceeding backwards).

**Note:**
• This field accepts a 10 byte hexadecimal string. Six byte RBAs are stored 00000000xxxxxxxxxxx and six byte LRSNs are stored 00xxxxxxxxxxxx000000.
• This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.
Reuse VSAM Data Set
Indicates whether a VSAM data set can be reused on WRITE_TO_VSAM or WRITE_TO_BOTH jobs. If Reuse VSAM Data Set is set to N (No), a VSAM data set is newly allocated (with new extent structure) and the NO_REUSE keyword is included in the JCL on a Job Profile build. If Reuse VSAM Data Set is set to Y (Yes), an existing VSAM data set will be reused (thus preserving the data set’s size and extent structure) and the NO_REUSE keyword is excluded from the JCL on a Job Profile build.

Share Option
Indicates how users can use the utility profile. Valid values are:

- **U (Update)**
  Allows other users to update the utility profile.

- **V (View)**
  Allows other users to view but not update the utility profile.

- **N (No)**
  Prevents other users from viewing or updating the utility profile.

Spec Hex End Pt/Quiesce #
Indicates the end point or quiesce # at which the Db2 Change Accumulation Tool process will stop. The value you specify in this field assigns a value to either the TOLOGPOINT or the TO_QUIESCE control card (if you .

Notes:
1. You must specify a hexadecimal end point if you typed S in the End Point field.
   **Note:** This field accepts a 10 byte hexadecimal string. Six byte RBAs are stored 00000000xxxxxxxxxx and six byte LRSNs are stored 00xxxxxxxxxxx000000.

2. You can optionally specify a numeric value in the range of 1–999 if you typed Q in the End Point field. If you specify Q in the End Point field and no value in the Specified Hex End Point Quiesce # field, Db2 Change Accumulation Tool will retrieve the most recent quiesce point's log point.

3. The Specified End Point Quiesce # field must be left blank if you specify C in the End Point field.
   **Note:** This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

Switch VCAT
Indicates whether Db2 Change Accumulation Tool changes the first DSN qualifier of the WRITE_TO_VSAM target. Valid values are:

- **Y**
  Includes the SWITCH_VCAT vcatname keyword in Db2 Change Accumulation Tool syntax, where vcatname is the value specified in the VCAT value field. This option directs Db2 Change Accumulation Tool to change the first DSN qualifier of the WRITE_TO_VSAM target thus allowing Db2 Change Accumulation Tool to write to a different VSAM data set.
SYSCOPY Scan Operating Mode
Specifies which SYSCOPY rows to consider when finding a starting point for processing. Valid values are:

Z  (Default) Db2 Change Accumulation Tool detects the operating mode Db2 is running under and automatically inserts the corresponding control card. This option omits the LOCAL_SITE, RECOVER_SITE, and IMAGE_COPY_PREFERENCE control cards; uses the value found in the ZPARMs on the Db2.

L  Refers to the LP/LB rows to find a starting point for processing. Includes the LOCAL_SITE keyword in Db2 Change Accumulation Tool syntax.

R  Uses the RP/RB rows to find a starting point for processing. Includes the RECOVERY_SITE keyword in Db2 Change Accumulation Tool syntax.

U  Uses the user-specified scan preference defined in the SYSCOPY Selection Preference field to find a starting point for processing. Includes the IMAGE_COPY_PREFERENCE keyword in Db2 Change Accumulation Tool syntax.

Note: This option is valid when creating mini logs, creating image copies, writing to VSAM data sets or when writing to both a VSAM data set and an image copy.

SYSCOPY Selection Pref
Specifies the image copy types to attempt to use when scanning SYSCOPY for a starting point. You can specify at least one and up to five image copy types to scan for. For example:

LB  Scans for LB type image copies in SYSCOPY.
LP  Scans for LP type image copies in SYSCOPY.
LPLB Scans first for LP type image copies, then for LB type image copies (and always uses LP type image copies on identically time-stamped SYSCOPY rows).
LPLBRB Allows the SYSCOPY scan program to pick an RB if it came up first while scanning SYSCOPY backwards for a starting point.
LPLBRPRBFC (Default) Causes the SYSCOPY Selection Preference to be ignored.

This selection preference is only applied if the SYSCOPY Scan Operating Mode is set to U (User). One to five codes in total can be entered in a packed 10-character maximum field. Valid codes are:

LP  Local primary.
LB  Local backup.
RP  Recovery primary.
RB  Recovery backup.
FC  Flash copy. Uses Db2 Recovery Expert managed flash copy data sets in addition to Db2 Version 10 and higher flash copy data sets as image copy starting points in Db2 Change Accumulation Tool processing.
**Unified End Points In Group**

Indicates whether to include the UNIFIED or UNIFIED_WARNING keywords in Db2 Change Accumulation Tool syntax for the specified end point. If the UNIFIED keyword is present, Db2 Change Accumulation Tool will not make image copies unless every object in the GROUP or SPACE can be copied to the specified end point. Valid values are:

- **Y** Includes the UNIFIED keyword in the syntax. This means Db2 Change Accumulation Tool will not make image copies unless every object in the GROUP or SPACE can be copied to the specified end point. This inhibits anything being written to SYSCOPY and takes the abend disposition of the DDs.

- **N** Does not include the UNIFIED keyword in the syntax. This means Db2 Change Accumulation Tool will make image copies even if some objects in the GROUP or SPACE cannot be copied to the specified end point.

- **W** Includes the UNIFIED_WARNING keyword in the syntax. This means Db2 Change Accumulation Tool makes image copies even if some objects in the GROUP or SPACE cannot be copied to the specified end point. Processing will end with a RC=4 and messages GGC2810I and GGC2811I will be output.

**User**

The current user ID.

**VCAT value**

Indicates the VCAT name that will replace the first qualifier of the data set name for the WRITE_TO_VSAM target. Valid values are 1 to 8 characters in length. The default value for this field is SPACES. During a job/JCL build operation, if the Switch VCAT field is Y and the VCAT value is specified, the new generation code is triggered.

**Write Mode**

Specifies the destination to which changes are to be written (to image copies, to VSAM files, or to both). Valid values are:

- **I** Includes the WRITE_TO_COPIES keyword in Db2 Change Accumulation Tool syntax and writes changes to image copies.

- **V** Inserts the WRITE_TO_VSAM keyword in Db2 Change Accumulation Tool syntax and writes changes to the underlying VSAM file.

- **B** Inserts the WRITE_TO_BOTH keyword in Db2 Change Accumulation Tool syntax and writes changes to both image copies and underlying VSAM files.

**Notes:**

1. The **Write Mode** setting of B cannot be used with mini logs.
2. The **Write Mode** setting of V cannot be used with mini logs nor image copies. To use the **Write Mode** setting of V, the **ML Data Set 1/2 Name Generation** and the **IC Data Set Name Generation** fields must both be set to N.

3. The Db2 space must be in a STOPPED state before WRITE_TO_VSAM or WRITE_TO_BOTH can occur.

4. The NO_SYSCOPY_ROW control card is ignored when using **Write Mode** setting of V.

Since this option specifies the write mode, it is applicable only when creating image copies, writing to VSAM data sets or when writing to both VSAM data sets and creating an image copy.

**XML Alternate SSID Template DSN**

The XML alternate SSID template DSN created using main menu option 5. Any number of these template data sets can exist and a valid one must be entered into the utility profile to be propagated into the control cards so that the batch process can read the correct template data set when creating sequence number update jobs for Db2 subsystems to which Db2 Change Accumulation Tool cannot connect. You can specify an optional member name for the job output (if the generated template job is a PDS) in the **Member** field.

**Setting up a mini log mode utility profile**

Follow these steps to set up a mini log mode utility profile.

**Procedure**

1. Specify the appropriate file parameters for the mini log data sets that are to be created by Db2 Change Accumulation Tool. For more information, see Step 6 in “Specifying Db2 Change Accum parameters” on page 88.

2. Access the Utility Profile Options panel. For more information, see “Creating a utility profile” on page 137 or “Updating a utility profile” on page 168.

3. On the Utility Profile Options panel, specify the following:
   a. In the **Write Mode** field, type I, V and B are not valid write mode values if you are running in mini log mode.
   b. In the **Include in Profile / ML Data Set 1 Name Generation** and **Include in Profile / ML Data Set 2 Name Generation** fields, type Y.
   c. In the **Update Options / ML Data Set 1 Name Generation** and **Update Options / ML Data Set 2 Name Generation** fields, type Y.
   d. In the **Include in Profile / IC Data Set Name Generation**, type N.
   e. In the **Update Options / IC Data Set Name Generation**, type N.
   f. In the **Add SYSCOPY Rows On Complete** field, type N. If you use mini log mode, SYSCOPY rows are not involved and are therefore not added on completion.
   g. Specify values for all other fields as needed based on your objectives.

4. Press Enter. The ML Image Copy DSN Generation panel is displayed.

5. Update the utility options for DSN generation. For more information, see “Generating DSN for mini logs and image copies” on page 153.

**Related concepts:**

- “Mini logs” on page 4

Mini logs are data sets that contain Db2 log information for a specific table space or sets of table spaces.
Mini logs can be defined at the group level or the space level.

**Generating DSN for mini logs and image copies**

Follow these steps to generate a DSN for mini logs and image copies.

**Procedure**

1. Set up a mini log mode utility profile. For more information, see “Setting up a mini log mode utility profile” on page 152. The ML Image Copy DSN Generation panel is displayed:

   ![Figure 64. LP/ML Image Copy DSN Generation panel](image)

   **Available qualifier codes (not supported in IC dynamic dsn generation):**

   1 - Database
   2 - Space Name
   3 - Partition / DSNUM
   5 - Partition/DSNUM only when partitioned *
   7 - Vcatname *
   8 - Subsystem ID
   9 - User ID *
   10 - Time (HMMSS)
   11 - Date (YYYYDD)
   12 - Year (YYYY)
   13 - Month (MM)
   14 - Day (DD)
   15 - Julian Day (DDD)
   16 - Hours (HH)
   17 - Minutes (MM)
   18 - Seconds (SS)
   19 - Timestamp *
   20 - Random Number *
   21 - GDG (+1) .. (+n) *
   22 - ICBACKUP (#23..#24)
   23 - Local/Recovery (L/R)
   24 - Primary/Backup (P/B)
   25 - ICTYPE (Full/Incr)
   26 - Utility Name
   27 - Job Name
   28 - Step Name
   29 - Substring Qualifier *
   30 - Use freeform literal

2. Select the appropriate qualifiers from those listed on the ML Image Copy DSN Generation panel to build a DSN that meets your objectives. To include a qualifier, type its number in the **Qualifier Code** field and press Enter. The qualifier string appears in the **Current data set name generation qualifier string** field. You can also type the data set name directly in the **Current data set name generation qualifier string** field. For more information, see “Qualifier codes for DSN generation” on page 154. For example:

   a. In the **Qualifier Code** field, type 1 (Database) and press Enter.
   b. In the **Qualifier Code** field, type 2 (Space Name) and press Enter.
c. In the **Qualifier Code** field, type 30 (FreeForm Literal) and D in the **Free Form Literal** field and press Enter.

d. In the **Qualifier Code** field, type 11 (Julian Date) and press Enter. The data set name appears on the **Current data set name generation qualifier string** line is:

```
&DB..&SN..D&JDATE.
```

To view the string as it will be completed, type Y in the **Show DSN** field. When you press Enter, the sample string is displayed:

```plaintext
Resulting DSN using current symbolic string

Using the following sample data as input:

<table>
<thead>
<tr>
<th>&amp;JOBNAME</th>
<th>'JOBNAME'</th>
<th>&amp;STEPNAME</th>
<th>'STEPNAME'</th>
<th>&amp;UID</th>
<th>'THLAURA'</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp;SSID</td>
<td>'QAA5'</td>
<td>&amp;ICTYPE</td>
<td>'F'</td>
<td>&amp;UTIL</td>
<td>'UTILNAME'</td>
</tr>
<tr>
<td>&amp;LOCREM</td>
<td>'L'</td>
<td>&amp;PRIBAC</td>
<td>'P'</td>
<td>&amp;DB2</td>
<td>'DATABASE'</td>
</tr>
<tr>
<td>&amp;SN</td>
<td>'SPACENAM'</td>
<td>&amp;PART</td>
<td>'00001'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The date/time fields are set to the current time.

The generated data set would be:

* DATABASE.SPACENAM.D2008221 *
```

*Figure 65. Resulting DSN using current symbolic string*

3. Press PF3 to exit.

**Qualifier codes for DSN generation**

These qualifier codes are available on the ML Image Copy DSN Generation panel.

1 -Database
   The database name.

2 - Space Name
   The table space name.

3 -Partition/DSNUM
   The partition number or data set number. When you choose this option, the Resulting DSN using Current Symbolic String window appears to prompt you to enter a valid character for the first position in the string.

5 -Partition/DSNUM when partitioned
   The partition number or data set number. This qualifier is included only if the data set name is being generated for a specific partition of a partitioned space; otherwise, it is ignored. When you choose this option, the Resulting DSN using Current Symbolic String window appears to prompt you to enter a valid character for the first position in the string.

   **Note:** This qualifier code is not supported in IC dynamic DSN generation.

7 - Vcatname
   The volume catalog name.

   **Note:** This qualifier code is not supported in IC dynamic DSN generation.

8 - Subsystem ID
   The DB2 subsystem ID.

9 - User ID
   The TSO user ID of the job builder.
Note: This qualifier code is not supported in IC dynamic DSN generation.

10 - Time (HHMMSS)
The current time in the format HHMMSS.

11 - Date (YYYYDDD)
The current date in the format YYYYDDD.

12 - Year (YYYY)
The current year in the format YYYY.

13 - Month (MM)
The current month in the format MM.

14 - Day (DD)
The current day of the month in the format DD.

15 - Julian Day (DDD)
The Julian day in the format DDD.

16 - Hours (HH)
The current time in hours in the format HH.

17 - Minutes (MM)
The current time in minutes in the format MM.

18 - Seconds (SS)
The current time in seconds in the format SS.

19 - Timestamp
The current timestamp in the format Dyymmdd.Thhmmss.

20 - Random Number
A random number in the format Rnnnnnn.

21 - GDG (+1)..(+n)
Appends (+n) to the GDG base if you are using GDG data sets.

Note:
- If used, this qualifier must be the last qualifier code you specify for the data set name.
- This qualifier code is not supported in IC dynamic DSN generation.

22 - IBACKUP (#23.#24)
The image copy backup type. The format is x.y, where x is L for local or R for recovery and y is P for primary or B for backup.

23 - Local/Recovery (L/R)
The image copy backup type. L indicates local site and R indicates recovery site.

24 - Primary/Backup (P/B)
The image copy backup type. P indicates primary and B indicates backup.

25 - CTYPE (Full/Incr)
The image copy type. F indicates full image copy type and I indicates incremental image copy type.

26 - Utility Name
The utility name.

27 - Job Name
The job name.
28 - Step Name
   The job step name.

29 - Substring Qualifier
   The substring qualifier. If you specify this qualifier code, the Substring
   Parameters pop-up displays with the following fields:

   Enter the Qualifier Code
   Type the number corresponding to the qualifier code you want to
   add.

   Enter Starting Position
   Type the starting position of the substring.

   Enter Substring Length
   Type the length of the substring.

Note: This qualifier code is not supported in IC dynamic DSN generation.

30 - Use Freeform Literal
   The eight-character literal that you type in the Free form literal
   field.

Setting up an image copy mode utility profile

Follow these steps to set up an image copy mode utility profile that can be used to
create image copies of a database, table space, or a set of table spaces.

Procedure

1. Access the Utility Profile Options panel by either creating a new utility profile
   or updating an existing utility profile. For more information, see “Creating a
   utility profile” on page 137 or “Updating a utility profile” on page 168.

2. On the Utility Profile Options panel, specify the following:
   a. In the Include in Profile / ML Data Set 1 Name Generation and Include
      in Profile / ML Data Set 2 Name Generation fields, type N.
   b. In the Update Options / ML Data Set 1 Name Generation and Update
      Options / ML Data Set 2 Name Generation fields, type N.
   c. In the Include in Profile / IC Data Set Name Generation field, type Y.
   d. In the Updated Options / IC Data Set Name Generation field, type Y.
   e. Specify values for all other fields as needed based on your objectives.

3. Press Enter. The Image Copy Options panel is displayed:

   Figure 66. Image Copy Options panel
4. In the **Local Primary/Take Image Copy** field, type one of the following values:
   
   **Y** Insert the CALPnnnn DD statement into Db2 Change Accumulation Tool syntax to enable the creation of a local primary image copy.
   
   **N** Do not insert the CALPnnnn DD statement into Db2 Change Accumulation Tool syntax.
   
5. In the **Local Primary/View or Update Options** field, type one of the following values:
   
   **Y** Display the Image Copy Options panel where you can then edit the data set information used when Db2 Change Accumulation Tool creates the local primary image copy.
   
   **N** Skips updating the image copy data set name options panel.
   
6. In the **Local Backup/Take Image Copy** field, type one of the following values:
   
   **Y** Insert the CALBnnnn DD statement into Db2 Change Accumulation Tool syntax to enable the creation of a local backup image copy.
   
   **N** Do not insert the CALBnnnn DD statement into Db2 Change Accumulation Tool syntax.
   
7. In the **Local Backup/View or Update Options** field, type one of the following values:
   
   **Y** Display the Image Copy Options panel where you press Enter. You can then edit the data set information used when Db2 Change Accumulation Tool creates the local backup image copy.
   
   **N** Skip updating the image copy data set name options panel.
   
8. In the **Recovery Site Primary/Take Image Copy** field, type one of the following values:
   
   **Y** Insert the CARPnnnn DD statement into Db2 Change Accumulation Tool syntax to enable the creation of a recovery site primary image copy.
   
   **N** Do not insert the CARPnnnn DD statement into Db2 Change Accumulation Tool syntax.
   
9. In the **Recovery Site Primary/View or Update Options** field, type one of the following values:
   
   **Y** Display the Image Copy Options panel where you press Enter. You can then edit the data set information used when Db2 Change Accumulation Tool creates the recovery site primary image copy.
   
   **N** Skip updating the image copy data set name options panel.
   
10. In the **Recovery Site Backup/Take Image Copy** field, type one of the following values:
   
    **Y** Insert the CARBnnnn DD statement into Db2 Change Accumulation Tool syntax to enable the creation of a recovery site backup image copy.
   
    **N** Do not insert the CARBnnnn DD statement into Db2 Change Accumulation Tool syntax.
   
11. In the **Recovery Site Backup/View or Update Options** field, type one of the following values:
   
    **Y** Display the Image Copy Options panel where you press Enter. You can then edit the data set information used when Db2 Change Accumulation Tool creates the recovery site backup image copy.
N  Skip updating the image copy data set name options panel.

12. In the Generate JCL DDs for Image Copies field, type one of the following values:
   
   Y  Generate Db2 Change Accumulation Tool JCL with the standard allocation information which has a limit of 5000 objects.
   
   N  Generate Db2 Change Accumulation Tool JCL with the control card-based allocation information enabling >5000 objects to be specified.

13. In the Take Image Copy column, type Y in the appropriate image copy types you want to create (Local Primary, Local Backup, Recovery Site Primary, or Recovery Site Backup).

14. Press Enter. The following shows an example of the values you would specify to collect local site primary and recovery site primary image copies and to view/update image copy options:

```
GGC$UIMG V3R1 ------- Image Copy Options ----- YYYY/MM/DD HH:MM:SS.TH
Option ==> 
---------------------------------------------------------------
Creator . . : USERA
Name. . . . : GGCUP1
User. . . . : USERA
---------------------------------------------------------------

Enter the image copy options to associate with this utility profile:

- Take Image Copy - --- Update Options ---

Local Primary . . . . . Y (Yes/No). . . . . . Y (Yes/No)
Local Backup. . . . . . N (Yes/No). . . . . . N (Yes/No)
Recovery Site Primary . . Y (Yes/No). . . . . Y (Yes/No)
Recovery Site Backup . . N (Yes/No). . . . . . N (Yes/No)
Generate JCL DDs for Image Copies . . . . . . . . . Y (Yes/No)
```

Figure 67. Image Copy Options panel

15. After you select the appropriate options for your site’s needs, press Enter. If you specified Y in any View/Update Options fields, the Image Copy Options panel is displayed:
16. Specify the following:

a. In the **Update DSN Create Spec** field, type one of the following values:
   - **Y** Display the LP Image Copy DSN Generation panel where you can edit image copy data set name generation qualifier string.
   - **N** Skip editing the image copy data set name generation qualifier string.

b. In the **Unit Type** field, type the unit type. The unit type can be any valid z/OS device name for your site. Unit types might include devices such as 3390, 3490, 3590-1, SYSALLDA, T4, T8, 3400-5, SYSDA, CART, DISK, TAPE.

c. In the **Indicates** field, type one of the following values:
   - **Y** Include the image copy data set name in the MVS catalog. If you are using GDGs, cataloging the GDGs is recommended, but it isn't required. If the GDGs are not cataloged, it is possible that the GDG base may become out of sync with newly created image copies.
   - **N** Do not include the image copy data set name in the MVS catalog.

d. In the **Data Class** field, type the data class.

e. In the **Storage Class** field, type the storage class.

f. In the **Management Class** field, type the management class.

g. In the **Volume Count** field, type the maximum number of volumes that can be used for the Db2 Change Accumulation Tool Image Copy data sets. Valid values are in the range of 1 to 255 or the field can be left blank, in which case it defaults to the system default.

h. In the **Expiration Date** field, type the expiration date.
   - In the **Retention Period** field, type the four-digit retention period. This field is required if **Unit Type** is TAPE.

17. Press Enter. If you typed **Y** in the **Update DSN Create Spec** field, the LP Image Copy DSN Generation panel is displayed.
18. Specify the appropriate DSN. For more information, see “Generating DSN for mini logs and image copies” on page 153.

19. Press PF3. If you have completed image copy options for all local/recovery primary/backup date sets, the Utility Profile Display panel is displayed showing the following message:

   GGC019I - Profile "TWUSER.GGCUP IMAGECOPY" saved

   If you have yet to complete image copy options for other local/recovery primary/backup date sets, the Image Copy Options panel displays for the next data set for which image copy options must be set.

20. Complete the image copy options for all remaining data sets.

21. Press PF3 to exit and save.

Related concepts:

“Image copies” on page 5

You can use Db2 Change Accumulation Tool to create image copies of a given database or table space (or a set of table spaces).

Setting up a WRITE_TO_VSAM utility profile

Follow these steps to set up a WRITE_TO_VSAM utility profile, which enables you to write changes to an underlying VSAM file and use Db2 Change Accumulation Tool in recovery mode.
About this task

When setting up a utility profile to write changes to a VSAM file:

• If you specify a Write Mode of V, the WRITE_TO_VSAM control card will be inserted into your JCL at build time.

• If you specify a Write Mode of V, you must also specify a value of N in the following fields:
  – Include in Profile / ML Data Set 1 Name Generation
  – Include in Profile / ML Data Set 2 Name Generation
  – Update Options / ML Data Set 1 Name Generation
  – Update Options / ML Data Set 2 Name Generation
  – Include in Profile / IC Data Set Name Generation
  – Update Options / IC Data Set Name Generation

• The DB2 space must be in a STOPPED state before WRITE_TO_VSAM or WRITE_TO_BOTH can occur.

Procedure

1. Access the Utility Profile Options panel. For more information, see “Creating a utility profile” on page 137 or “Updating a utility profile” on page 168.

2. On the Utility Profile Options panel, specify changes to be written to a VSAM file:
   a. In the Write Mode field, type V.
   b. In the Include in Profile / ML Data Set 1 Name Generation and Include in Profile / ML Data Set 2 Name Generation fields, type N.
   c. In the Update Options / ML Data Set 1 Name Generation and Update Options / ML Data Set 2 Name Generation fields, type N.
   d. In the Include in Profile / IC Data Set Name Generation, type N.
   e. In the Update Options / IC Data Set Name Generation, type N.
   f. In the End Point field, type the appropriate value. If needed, specify an endpoint in the Specified End Point field. For more information, see the description of the End Point field in “Utility profiles - fields and columns” on page 140.
   g. Press PF3. The Utility Profile Display panel displays with a message:
      "GGC019I - Profile "TWUSER.GGCUP VSAM" saved"

Related concepts:
"Write to VSAM” on page 5
Db2 Change Accumulation Tool allows you to write changes to image copies, VSAM files, or both.

Setting up a WRITE_TO_BOTH utility profile

Follow these steps to set up a WRITE_TO_BOTH utility profiles, which enables you to write changes to both an image copy and a VSAM file.

About this task

Note:

When setting up a WRITE_TO_BOTH utility profile, note the following:

• If you specify a Write Mode of B, the WRITE_TO_BOTH control card will be inserted into your JCL at build time.
If you specify a Write Mode of B, you must also specify a value of N in the following fields:
- Include in Profile / ML Data Set 1 Name Generation
- Include in Profile / ML Data Set 2 Name Generation
- Update Options / ML Data Set 1 Name Generation
- Update Options / ML Data Set 2 Name Generation

The DB2 space must be in a STOPPED state before WRITE_TO_VSAM or WRITE_TO_BOTH can occur.

Procedure

1. Access the Utility Profile Options panel. For more information, see “Creating a utility profile” on page 137 or “Updating a utility profile” on page 168.

2. On the Utility Profile Options panel, specify the following values:
   a. In the Write Mode field, type B.
   b. In the Include in Profile / ML Data Set 1 Name Generation and Include in Profile / ML Data Set 2 Name Generation fields, type N.
   c. In the Update Options / ML Data Set 1 Name Generation and Update Options / ML Data Set 2 Name Generation fields, type N.
   d. In the Include in Profile / IC Data Set Name Generation, type Y.
   e. In the Update Options / IC Data Set Name Generation, type Y.

3. Press Enter. The Image Copy Options panel is displayed:

   Figure 70. Image Copy Options panel

4. In the Take Image Copy column, type Y in the appropriate image copy types you want to create (Local Primary, Local Backup, Recovery Site Primary, or Recovery Site Backup).

5. After you select the appropriate options for your site’s needs, press Enter. If you specified Y in any View/Update Options fields, the Image Copy Options panel displays:
6. Complete the information on the Image Copy Options panel as appropriate for your site and press Enter. If you typed Y in the **Update DSN create spec** field, the IC Image Copy DSN Generation panel displays:

```
GGC$UCPD V3R1 ------ Image Copy Options ------ YYYY/MM/DD HH:MM:SS.TH
Option ===>
------------------------------------------------------------------------
Creator . . . : USERA
Name . . . . : GGC UTIL PROF BOTH
User . . . . : USERA
------------------------------------------------------------------------
More: +

Enter the Image Copy options to associate with this utility profile on the LOCAL PRIMARY data set.

Update DSN Create Spec . . Y (Y - Yes, N - No)
Unit Type. . . . . . CART (CART/DISK/etc.)
Catalog. . . . . . . Y (Y - Yes, N - No)
Data Class . . . . . . (8-character class)
Storage Class. . . . (8-character class)
Management Class . . . (8-character class)
Volume Count . . . . (Blank, 1-255)

If Unit Type is a tape device, specify one of the following (either expiration date or retention period):

Expiration date. . . . (YYYYDDD)
Retention period . . . 1 (4-digit number)
```

**Figure 71. Image Copy Options panel**

6. Complete the information on the Image Copy Options panel as appropriate for your site and press Enter. If you typed Y in the **Update DSN create spec** field, the IC Image Copy DSN Generation panel displays:
7. You must now update utility options for DSN Generation. When you have finished specifying the qualifier string, press PF3. The Image Copy Options panel displays.

8. Press PF3. If you have completed image copy options for all local/recovery primary/backup date sets, the Utility Profile Display panel displays the following message:

   GGC019I - Profile "TWUSER.GGCUP BOTH" saved

   If you have yet to complete image copy options for other local/recovery primary/backup date sets, the Image Copy Options panel displays for the next data set for which image copy options must be set, as shown in the following figure:

---

Table of Available Qualifier Codes:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Database</td>
</tr>
<tr>
<td>2</td>
<td>Space Name</td>
</tr>
<tr>
<td>3</td>
<td>Partition / DSNUM</td>
</tr>
<tr>
<td>5</td>
<td>Partition/DSNUM only when partitioned *</td>
</tr>
<tr>
<td>7</td>
<td>Vcatname *</td>
</tr>
<tr>
<td>8</td>
<td>Subsystem ID</td>
</tr>
<tr>
<td>9</td>
<td>User ID *</td>
</tr>
<tr>
<td>10</td>
<td>Time (HHMMSS)</td>
</tr>
<tr>
<td>11</td>
<td>Date (YYYYDDD)</td>
</tr>
<tr>
<td>12</td>
<td>Year (YYYY)</td>
</tr>
<tr>
<td>13</td>
<td>Month (MM)</td>
</tr>
<tr>
<td>14</td>
<td>Day (DD)</td>
</tr>
<tr>
<td>15</td>
<td>Julian Day (DDDD)</td>
</tr>
<tr>
<td>16</td>
<td>Hours (HH)</td>
</tr>
<tr>
<td>17</td>
<td>Minutes (MM)</td>
</tr>
<tr>
<td>18</td>
<td>Seconds (SS)</td>
</tr>
<tr>
<td>19</td>
<td>Timestamp *</td>
</tr>
<tr>
<td>20</td>
<td>Random Number *</td>
</tr>
<tr>
<td>21</td>
<td>GDG (+1)..(+n) *</td>
</tr>
<tr>
<td>22</td>
<td>ICBACKUP (#23,#24)</td>
</tr>
<tr>
<td>23</td>
<td>Local/Recovery (L/R)</td>
</tr>
<tr>
<td>24</td>
<td>Primary/Backup (P/B)</td>
</tr>
<tr>
<td>25</td>
<td>ICTYPE (Full/Incr)</td>
</tr>
<tr>
<td>26</td>
<td>Utility Name</td>
</tr>
<tr>
<td>27</td>
<td>Job Name</td>
</tr>
<tr>
<td>28</td>
<td>Step Name</td>
</tr>
<tr>
<td>29</td>
<td>Substring Qualifier *</td>
</tr>
<tr>
<td>30</td>
<td>Use freeform literal</td>
</tr>
</tbody>
</table>

---

Figure 72. LP Image Copy DSN Generation panel
9. Complete the image copy options for all remaining data sets.

10. Press PF2 to exit and save.

**Setting Db2 rebuild index options**

Follow these steps to set Db2 rebuild index options.

**Before you begin**

To use the rebuild index functionality you must:

- Set the **Process IX** field on the Object Profile Display panel to **Y**.
- Set the **REBUILD INDEX** field on the Utility Profile Options panel to **D**.
- Set the **DB2 Rebuild Index Options** (these options are accessed by specifying **D** in the **REBUILD INDEX** field and **Y** in the **DB2 Rebuild Index Options** field).

Once the rebuild index options are turned on in the profile, the individual object lines in the object profile have to turn on the **Process Indexes** column. This is the first of three alterable fields on each object profile (GGC$OPRU screen) line. You can then select individually which objects are to get rebuild index control cards and which ones aren’t, or to turn them all off via the utility profile, ignoring whatever value is in **Process Indexes**.

- Set **OBIDXLAT Alternate DB2 SSID**, the Db2 that is connected to when performing the target system rebuild index processing after the OBIDXLAT processing has completed. This alternate DB2 will be used as the second job generated on an OBIDXLAT build. If left blank on the utility profile, the same DB2 SSID that is used on the OBIDXLAT process will be used on the rebuild index process.

**Procedure**

1. Create an object profile that includes the object for which you want to generate an OBID report. For more information, see “Creating an object profile” on page 95.
2. On the Object Profile Display panel, in the Process IX field, type Y for the objects you would like to perform a rebuild index. Db2 Rebuild Index is performed for only the objects for which the Process IX field is set to Y.

3. Access the Utility Profile Options panel. For more information, see "Creating a utility profile" on page 137 or "Updating a utility profile" on page 168.

4. Specify the following options:
   a. In the Include in Profile / DB2 Rebuild Index ALL step field, type Y.
   b. In the Update Options / DB2 Rebuild Index ALL step field, type Y.
   c. Specify values for all other fields on the Utility Profile Options panel as needed for your purposes.

5. Press Enter. The Online Rebuild Index Options panel is displayed:

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharelevel</td>
<td>R (R - Reference, C - Change)</td>
</tr>
<tr>
<td>Drain Wait</td>
<td>0 (0-1800 seconds)</td>
</tr>
<tr>
<td>Retry</td>
<td>blank, 0-255</td>
</tr>
<tr>
<td>Retry Delay</td>
<td>300 (1-1800 seconds)</td>
</tr>
<tr>
<td>Maxro</td>
<td>blank, Number, DEFER</td>
</tr>
<tr>
<td>Longlog</td>
<td>C (C - Continue, T - Term, D - Drain)</td>
</tr>
<tr>
<td>Delay</td>
<td>1200 (Number)</td>
</tr>
</tbody>
</table>

Figure 74. Online Rebuild Index options panel

6. Specify the following options:
   a. In the Sharelevel field, type one of the following values:
      - R: Applications are granted REFERENCE access during the RELOAD phase of the online index rebuild. This setting allows applications to read but not write data.
      - C: Applications are granted CHANGE access during the RELOAD phase of the online index rebuild. This setting allows applications to read and write data.

   b. In the Drain Wait field, type the number of seconds that the utility waits when draining the space. The time specified is the aggregate time for objects to be checked during the REBUILD INDEX. This overrides the values specified by IRLMRWT and UTIMOUT. If the keyword is not specified or 0 is specified, then regular draining using the IRLMRWT value will be used. Acceptable values can be from 0 to 1800 seconds.

   c. In the Retry field, type the maximum number of retries that can be attempted. Values can be from 0 to 255. If this field is left blank, the utility will use the value of the utility multiplier system parameter UTIMOUT.

   d. In the Retry Delay field, type the minimum duration in seconds between retries. Values can be from 1 to 1800. If you do not specify a value, REBUILD INDEX uses drain wait value x retry value.

   e. In the Maxro field, type the maximum amount of time for the last iteration of log processing. During that iteration, applications have read-only access. Type an integer to specify the number of seconds, or type DEFER to specify that iterations of log processing can continue indefinitely. The default is the value of the lock timeout system parameter IRLMKWT. If you type DEFER, you should also enter C in the Longlog field.
f. In the Longlog field, specify the action to take if log reading is not catching up to the application’s writing of the log. Db2 sends a message to the console, then takes the action you specify. Type one of the following values:
   
   C Continue the online REBUILD INDEX until the time on the JOB statement expires.
   
   T Terminate the online REBUILD INDEX after the delay specified by the Delay parameter.
   
   D Drain the write claims after the delay specified by the Delay parameter, forcing the final iteration of log processing.
   
   g. In the Delay field, type the minimum interval between the time that the online REBUILD INDEX sends the LONGLOG message to the console and the time that the online REBUILD INDEX performs the action specified by the LONGLOG parameter. Enter an integer value.
   
   7. Press Enter.

**Setting up an OBID report job**

Follow these steps to set up an OBID report job.

**About this task**

For more information about the OBIDXLAT feature, see “Recover to a different table space (OBIDXLAT)” on page 7 and “Facilitation of the identification of target OBID information” on page 8.

**Procedure**

1. Create an object profile that includes the object for which you want to generate an OBID report. For more information, see “Creating an object profile” on page 95.

2. Access the Utility Profile Options panel. For more information, see “Creating a utility profile” on page 137 or “Updating a utility profile” on page 168.

3. In the OBID Report Job Generation field, type Y. When you specify Y in the OBID Report Job Generation field, the SSID that is used comes from the OBIDXLAT Alternate DB2 SSID field on the Utility Profile Options panel (if it is specified); otherwise, the current SSID is used. Each input line to the report program reflects the DBname and TSNname of each object in the object profile. The report program connects to a DB2 SSID specified on the JCL and for each input line (DB.TS combination), it outputs the following:
   - SSID
   - DB
   - TS
   - DBID
   - PSID
   - all of the rows in SYSTABLES for that DB.TS combination (sorted by OBID) including Creator, Table Name, and OBID

4. Create a job profile that references the object and utility profiles you created in steps 1 and 2. For more information, see “Creating a job profile” on page 173.

5. Build the job. For more information, see “Building jobs” on page 185. When the job is generated it contains the DBname and TSNname of each object in the object profile (these are source objects, not target objects).
6. Edit the job to specify the SSID and DB.TS that required for your Target SSID and DB.TS.
7. Run the job on the LPAR where the Target SSID resides.

---

**Updating a utility profile**

Update a utility profile to modify the options you want to use with your Db2 Change Accumulation Tool job.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 2 in the Option field and press Enter.
2. Type U in the Cmd line next to the utility profile you want to update and press Enter. The Utilities Profile Options panel is displayed.
Figure 75. Update Utility Profile Options panel

3. Modify the utility profile as needed. For more information, see "Utility profiles - fields and columns" on page 140.

4. Press PF3 to save and exit.

Viewing a utility profile

View a utility profile to see the current options.
**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 2 in the **Option** field and press Enter.

2. In the **Cmd** field next to the utility profile you want to view, type **V** and press Enter. The View Utilities Profile Options panel is displayed:

   ![View Utility Profile Options panel](image)

   **Figure 76. View Utility Profile Options panel**

   For more information, see “Utility profiles - fields and columns” on page 140.
Deleting a utility profile

Delete a utility profile you no longer need.

Procedure

1. On the IBM DB2 Change Accumulation Tool main menu, type 2 in the Option field and press Enter.
2. In the Cmd field next to the utility profile you want to delete, type D and press Enter. A deletion confirmation message is displayed:

```
Confirm deletion
GGCS$PRFD
Confirm delete of profile USERA.UP01
Delete N (Y - Yes, N - No)
```

Figure 77. Confirm deletion prompt

3. In the Delete field, type Y and press Enter. A message confirms the deletion:

```
GGCM052I - Profile "USERA.UP01" has been successfully deleted
```

Exporting a utility profile

Export a utility profile for use elsewhere.

Procedure

1. On the IBM DB2 Change Accumulation Tool main menu, type 2 in the Option field and press Enter.
2. In the Cmd field next to the utility profile you want to export, type E and press Enter. The Export Options panel is displayed:

```
Export Options
GGCS$EXPD V3R1  YYYY/MM/DD   HH:MM:SS
Option ====>  Scroll ====> PAGE
-------------------------------------------------------------------
Export SSID  .  .  . . . SS01    Row 1 of 1   >
-------------------------------------------------------------------
Export to Data Set . N (Yes/No)
Create Export Data Set N (Yes/No)
Dataset Name . . . . . . USERA.GGC.EXPORT
Member . . . . . . . . . . . MILLI (Required if DSN is a PDS)
-------------------------------------------------------------------
Typ Name     Creator    Upd Status
OBJ GGCOBJPR1 USERA    U OK
******************************************************************************
```

Figure 78. Export Options panel

3. Specify the options as appropriate for your utility profile export.
   a. In the Export SSID field, specify the target SSID to which you want to export the profile. If you choose to not export to a data set, the new profile will be directly exported to this subsystem.
   b. In the Export to data set field, type Y if you want to export the profile to a data set.
   c. In the Create export data set field, specify one of the following values:
      Y  Creates the export data set.
Does not create an export data set. You can instead use an existing data set. Existing data sets must be FB type data sets with an LRECL of 4096.

d. In the **Data set name** field, specify the data set name to which the profile is to be exported.

e. In the **Member** field, specify the partitioned data set (PDS) member to which the profile is to be exported.

f. Verify that the job profile shown at the bottom of the Export Options panel is the one you want to export. These read-only values are shown for the job profile:

   **Type**  The type of profile you are exporting.
   **Name**  The job profile name.
   **Creator**  The creator ID of the job profile.
   **Upd**  The update option for the job profile.
   **Status**  The status of the job profile.

4. Press Enter.

5. Press Enter. The following message is displayed to confirm the export:

   **GGOM152I - Import/Export Successful**

---

**Importing a utility profile**

Import a utility profile that has been previously exported.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 2 in the **Option** field and press Enter.

2. Type I in the **Cmd** line next to the object profile you want to import and press Enter. The Import Dataset panel is displayed:

   **Figure 79. Import Dataset panel**

   - **Import Dataset**
     GGC$IMPF
   - **Target SSID** . . . SS01
   - **Source Data Set**
     **Name** . . . USERA.GGC.EXPRT
     **Member** . . . PROFILES  (Required if DSN is a PDS)

3. Specify the appropriate values as appropriate for your objectives.

   a. In the **Target SSID** field, specify the SSID from which you want to import the profile.

   b. In the **Source Data Set Name** field, specify the data set name from which you want to import the profile.

   c. In the **Member** field, specify the partitioned data set (PDS) member from which the profile is to be imported.

4. Press Enter. The following message is displayed to confirm the import:

   **GGOM152I - Import/Export Successful**
Chapter 8. Working with job profiles

Job profiles specify the job options, object profiles, and utility profiles that Db2 Change Accumulation Tool uses constructing JCL.

You can create the Db2 Change Accumulation Tool job online or in batch mode. After creating a job profile, you can generate Db2 Change Accumulation Tool JCL that can be submitted for execution.

To run Db2 Change Accumulation Tool jobs, users must be authorized to use USS on the z/OS machine.

Topics:
- “Creating a job profile” on page 181
- “Updating a job profile” on page 182
- “Deleting a job profile” on page 182
- “Renaming a job profile” on page 182
- “Exporting a job profile” on page 183
- “Importing a job profile” on page 184
- “Viewing a job profile” on page 185
- “Building jobs” on page 185

Creating a job profile

Follow these steps to create a job profile.

Procedure
1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the Option field and press Enter.
2. On the Job Profile Display panel, type C in the Cmd field and press Enter. The Enter New Jobs Profile Data panel is displayed:

   Enter New Jobs Profile Data
   GGC$JPRC
   ----------------------------------------
   Creator . . . . . USERA
   Profile Name : .
   Description . .
   Update Option . U (U - Update, V - View, N - No access)

   Figure 80. Enter New Jobs Profile Data panel

3. In the Creator field, type the creator for the job profile. This field contains your user ID but you can optionally modify it.
4. In the Profile Name field, type the name for the job profile.
5. In the Description field, type a description of the job profile.
6. In the Update Option field, type the update option you want to use for the job profile. Valid values are:
   - U Other users are allowed to update the job profile.
   - V Other users are allowed to view the job profile.
N Other users are not allowed to view or update the job profile.

7. Press Enter. The Generation Options panel is displayed:

<table>
<thead>
<tr>
<th>Generation Options for USERA.JOB1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option ====&gt;</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Autonomic Director Options:</td>
</tr>
<tr>
<td>Autonomic Type ........ N (A - Active, P - Passive, N - None)</td>
</tr>
<tr>
<td>Select Maintenance Window ........ N (Yes/No, C - Clear)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Update Setup Override Options .... N (Yes/No)</td>
</tr>
<tr>
<td>Update Template/Listdef/Option parms .... N (Yes/No)</td>
</tr>
<tr>
<td>Update Job Group Break Down Options .... N (Yes/No)</td>
</tr>
<tr>
<td>Update Notifications ........ N (Yes/No)</td>
</tr>
<tr>
<td>Automatically Gen GDG Base ........ 000 (0-255 Limit)</td>
</tr>
<tr>
<td>Load Balance jobs by ........ N (T - Time, D - Dass, N - None)</td>
</tr>
<tr>
<td>Capture run times for Load Balancing .... N (Yes/No)</td>
</tr>
<tr>
<td>Start spaces in Utility/Read Only .... N (N - No, U - Utility, R - Read only)</td>
</tr>
<tr>
<td>Prefix Utility ID with jobname .... N (J - Job, S - Step, B - Both, N - No)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Set JCL member equal to jobname .... N (Yes/No)</td>
</tr>
<tr>
<td>Generate Job when Errors encountered .... Y (Y - Yes, N - No, W - Warnings)</td>
</tr>
<tr>
<td>Preview Exception Report .......... N (Y - Yes, N - No)</td>
</tr>
<tr>
<td>Evaluate Multiple Exception Profiles .... A (A - All, O - One at a time)</td>
</tr>
<tr>
<td>Recall Migrated Spaces ........ N (Yes/No)</td>
</tr>
<tr>
<td>Use DNSMACOR Exception Table .... N (Yes/No)</td>
</tr>
<tr>
<td>Include Job Registration Step .... N (Yes/No)</td>
</tr>
<tr>
<td>Utility work data set high level .... Optional</td>
</tr>
<tr>
<td>Utility work data set second qualifier .... Optional</td>
</tr>
<tr>
<td>Pre-Generation User Exit Name .... Optional</td>
</tr>
<tr>
<td>Post-Generation User Exit Name .... Optional</td>
</tr>
<tr>
<td>Control Card Data set .... Optional</td>
</tr>
<tr>
<td>Control Card Member Name Prefix .... Optional</td>
</tr>
<tr>
<td>Retrieve Jobcard Data set .... Optional</td>
</tr>
<tr>
<td>Member .... Optional</td>
</tr>
<tr>
<td>Jobname Template (Tt,O...,#,h...,Pppp,D..)</td>
</tr>
<tr>
<td>Override byte 1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td>Static Job Build Data set .... Optional</td>
</tr>
<tr>
<td>Member .... Optional</td>
</tr>
</tbody>
</table>

Figure 81. Generation Options panel

8. Specify the options as appropriate for your job profile.

a. Skip the Autonomic Director Options fields (including Autonomic Type, Select Maintenance Window, and Selected Maintenance Window). These fields are not used by Db2 Change Accumulation Tool.

b. In the Update Setup Override Options field, specify one of the following values:

Y Access the Setup Override Options panel after you complete the Generation Options panel. For more information, see "Updating setup override options" on page 177.

N Do not access the Setup Override Options panel after you complete the Generation Options panel.

c. Skip the Update Template/Listdef/Option parms field. This field is not used by Db2 Change Accumulation Tool.

d. Skip the Update Job Group Break Down Options field. This field is not used by Db2 Change Accumulation Tool.

e. Skip the Update Notifications field. This field is not used by Db2 Change Accumulation Tool.
f. In the **Automatically Gen GDG Base** field, type the GDG (Generation Data Group) limit to use for image copy data sets if a GDG base does not already exist. Valid values are 0 to 255. If you specify a value of 0, a GDG base is not automatically created. If your site is not SMS-managed, and you are required to include a model DSCB in your JCL, then the model DSCB name must be entered in the Enter DB2 System Parameters screen.

g. Skip the **Load Balance jobs by** field. This field is not used by Db2 Change Accumulation Tool.

h. Skip the **Capture run times for Load Balancing** field. This field is not used by Db2 Change Accumulation Tool.

i. In the **Start spaces in Utility/Read Only** field, specify one of the following values:

- **U**: In Db2 Change Accumulation Tool the U setting is synonymous with R (start/stop steps are generated, this causes the objects to be placed in the stopped status so the product can operate on the VSAM data sets).

- **R**: Start/stop steps are generated. This causes the objects to be placed in the stopped status so the product can operate on the VSAM data sets.

- **N**: Start/stop steps are not generated.

j. Skip the **Prefix Utility ID with jobname** field. This field is not used by Db2 Change Accumulation Tool.

k. Skip the **Preview Exception Report** field. This field is not used by Db2 Change Accumulation Tool.

l. In the **Set JCL member equal to jobname** field, type **Y** to set the JCL member equal to the job name; otherwise type **N**.

m. In the **Generate Job when Errors encountered** field, specify one of the following values:

- **Y**: Generate the job when errors are encountered.

- **N**: Do not generate the job when errors are encountered.

- **W**: Generate the job with warnings when errors are encountered.

n. Skip the **Evaluate Multiple Exception Profiles** field. This field is not used by Db2 Change Accumulation Tool.

o. In the **Recall migrated spaces** field, specify whether or not to recall migrated spaces during the job build. When spaces have been migrated to tape, HRECALLs are issued when the job is built. The recalls are organized for maximum tape mounting efficiency. Valid values are:

- **Y**: Recall migrated spaces during job build.

- **N**: Do not recall migrated spaces during job build.

p. Skip the **Use DSNACCOR Exception Table** field. This field is not used by Db2 Change Accumulation Tool.

q. (Optional) In the **Utility work data set highlevel** field, specify the utility work data set high level qualifier. If you do not type a valid MVS alias in the **Utility Work Data Set High Level** field, your utilities requiring work data sets are built with temporary data sets. Using temporary work data sets in utilities eliminates the utility from being restarted.

r. (Optional) In the **Pre-Generation User Exit Name** field, specify the pre-generation user exit name.
s. (Optional) In the Post-Generation User Exit Name field, specify the post-generation user exit name.

t. In the Control Card Data Set field, specify the control card data set.

u. (Optional) In the Retrieve Jobcard Data Set/Member field, specify the data set and member from which to retrieve jobcard and comments. At build time, the job card is retrieved from the data set instead of from the job build panel. The data set can include one job card and as many comment cards as desired. A unique job name is generated by incrementing the last character of the job name provided in the job card.

v. In the Jobname Template Override byte field, specify how Db2 Change Accumulation Tool generates unique job names.

If the job name is unique, then multiple jobs can run concurrently. This is helpful if you have a small batch window within which to run maintenance utilities for applications that require high availability. The template job name, which is supplied in the job card, affects the character substitution process, because it establishes the starting point for the sequence of characters that are generated in the resulting job names. Each character in the original job name is replaced by the values you specify in the Override byte field. If an override byte is left blank, the character in that position of the original job name is used.

- Type T in up to 2 bytes to replace the job name characters with the object type of the first object of the job. If you specify one T, the result is T for table space or I for index space; if you specify two Ts, the result is TS for table space or IX or indexspace.
- Type 0 in up to all 8 bytes to replace the job name with the object name of the first object in the job.
- Type the hash sign (#) to increment a numerical value in the specified position by 1.
- Type the percent sign (%) to increment an alphanumeric value by 1. Valid values are A - Z and 0 - 9 (no special characters are used).

Note: If you set the eighth byte to %, and more job names are required than can be generated by using A-Z and 0-9 in the eighth byte, Db2 Automation Tool increments the seventh byte by one and begins again. For example, if you set the override to ABCDEFG%, the job naming starts with ABCDEFGA, and continues to ABCDEFG9. If more jobs are required, the seventh character is incremented (G to H in this case). The job naming continues with ABCDEFA and continues from there.

- Type P in up to 4 bytes to replace the job name characters with the partition number of the first object of the job. If in an object profile all partitions of a space are selected, either individually or wildcarded, the partition variable lists the first partition (0001). If all the partitions of a space are not selected, the lowest-numbered partition included is the partition variable. For non-partitioned spaces, the result is 0000.
- Type 0 in up to all 8 bytes to replace the job name with the database name of the first object in the job.

w. In the Static Job Build Dataset and Member field, specify override values for the JCL generation data set and member name specified at build time. These fields are dependent on the Set JCL member equal to jobname field. If Set JCL member equal to jobname is set to Y and the static job build data set name is provided, the member name must be left blank. If the Set JCL member equal to jobname field is set to N and the static job build data set name is provided, a valid member name must be provided.
The data set entered in this field must exist. The member does not have to exist. If it does not exist, it is created when the job is generated.

9. Press PF3. If you specified Y in the Update Setup Override Options field, the corresponding panel displays where you can specify additional parameters. If you specified N in the Update Setup Override Options field, the Adding Profiles to the Job Profile panel is displayed:

<table>
<thead>
<tr>
<th>Adding Profiles to the Job Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC$JPRB</td>
</tr>
<tr>
<td>Add Objects Profiles Y (Y - Yes, N - No)</td>
</tr>
<tr>
<td>Add Utilities Profiles Y (Y - Yes, N - No)</td>
</tr>
</tbody>
</table>

Figure 82. Adding Profiles to the Job Profile panel

10. To add object profiles to your job profile, type Y in the Add Object Profiles field.

11. To add utility profiles to your job profile, type Y in the Add Utility Profiles field.

12. Press Enter. For more information, see:
   - “Adding object profiles to a job profile” on page 179
   - “Adding utility profiles to a job profile” on page 180

Updating setup override options

Follow these steps to update the setup override options that control how JCL is generated.

Procedure

1. Access the Generation Options panel for the job profile for which you want to update setup override options. For more information, see “Creating a job profile” on page 173 or “Updating a job profile” on page 181.

2. In the Update Setup Override Options field, type Y and press Enter. The Setup Override Options panel is displayed:
Setup Override Options for USER.PROFILE  
GGC$J0VR  
Option  ===>

---------------------------------------------------------------------------
<table>
<thead>
<tr>
<th></th>
<th>Current Setup Values</th>
<th>More: +</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work File Unit. . . . . .</td>
<td>SYSDA (SYSDA, DISK, etc)</td>
<td>. .</td>
</tr>
<tr>
<td>Sort Work File Unit. . . .</td>
<td>SYSDA (SYSDA, DISK, etc)</td>
<td>. .</td>
</tr>
<tr>
<td>Max Prim Space Alloc. . . .</td>
<td>099999 (1-99999) T (T,C,M)</td>
<td>. .</td>
</tr>
<tr>
<td>Secondary Alloc Perc. . . .</td>
<td>020 (1-999)% of Pri Space</td>
<td>. .</td>
</tr>
<tr>
<td>Utility REGION Size . . . .</td>
<td>0000 (0-2047) M (Megab)</td>
<td>. .</td>
</tr>
<tr>
<td>DB2 Fetch Buffer Size . . .</td>
<td>0010 (0-2047) M (Megab)</td>
<td>. .</td>
</tr>
<tr>
<td>Parallel MVS Cat LOCs . . .</td>
<td>05 (1-99)</td>
<td>. .</td>
</tr>
<tr>
<td>Term Utility if ABEND . . .</td>
<td>Y (Y - Yes, N - No)</td>
<td>. .</td>
</tr>
<tr>
<td>Generate STEPLIB DDs . . . .</td>
<td>Y (Y - Yes, N - No)</td>
<td>. .</td>
</tr>
<tr>
<td>Gen Copy DSNs in GMT. . . .</td>
<td>N (Y - Yes, N - No)</td>
<td>. .</td>
</tr>
</tbody>
</table>

Entering the following fields will override the calculated amount of  
Sort Work DD's space quantities and/or the number of DD's generated  
in the job.

Prim SortWork Space . . . | (1-99999) C (Cyls).
Second SortWork Space . . | (1-99999) C (Cyls).
Nbr of SortWork DDs . . . | (1-99).
Sortlib DSN . . . . . . . | . .     |

A blank in the Current Setup Values column indicates there is no value  
specified on the Setup panel.

Figure 83. Setup Override Options panel

3. Specify any override values you want to use in the Overrides column for each  
option. The current setup values are shown in the Current Setup Values  
column.
   
a. In the Work File Unit field, specify the default work file unit to use. Valid  
values are SYSDA, DISK, or any tape or disk esoteric unit.
   
b. In the Sort Work File Unit field, specify the SORT work file unit device to  
use when generating utility JCL. Valid values are SYSDA, DISK, or any tape  
or disk esoteric unit.

   Note:
   - If you specify TAPE in the Sort Work File Unit field, you can leave the  
     Nbr of SortWork DDs field blank or specify a value in the range 1-99.
   - If you specify TAPE in the Sort Work File Unit field, you must specify a  
     value in the Sortlib DSN field.
   - If you specify SYSDA in the Sort Work File Unit field, you can leave the  
     Nbr of SortWork DDs field blank or specify a value in the range 1-99.

4. In the Max Prim Space Alloc field, specify the maximum number of either  
cylinders, tracks, or megabytes for primary space allocation. The value you  
specify must be less than or equal to the number of cylinders, tracks, or  
megabytes on the specific DASD in your environment.

5. In the Secondary Allocation Percent field, specify the percent of the primary  
allocation to use when defining the secondary allocation. For example, if a  
primary allocation of 250 is specified and a secondary allocation percent of 10  
is defined, the allocation would be 250,25. This causes 250 tracks/cyls to be  
allocated initially and another 25 tracks/cyls to be allocated when the initial  
space fills up.

6. In the Utility REGION Size field, specify the REGION size in megabytes to  
be used when generating utility JCL. Valid values are 0 to 2047.
7. In the **DB2 Fetch Buffer Size** field, specify the fetch buffer size is used with multi-row fetch. This field should only be changed if you are working with large volumes of Db2 data during your job builds and wish to optimize performance.

8. In the **Parallel MVS Cat LOCx** field, specify the number of parallel processing tasks to be created when performing MVS catalog LOCATE operations. Valid values are 1 to 99.

9. In the **Term Utility if ABEND** field, specify whether or not to terminate the utility if an ABEND occurs during its execution.

10. In the **Generate Steplib DDs** field, specify whether or not STEPLIB DD statements are to be added to your JCL to provide an alternate means of specifying a private library.

11. In the **Gen Copy DSNs in GMT** field, specify whether or not to generate image copy DSN time stamps in Greenwich Meridian Time (GMT) instead of local time.

12. (Optional) In the **Prim SortWork Space** field, specify the primary space used (cylinders) for sort work data sets.

13. (Optional) In the **Second SortWork Space** field, specify the secondary space used (cylinders) for sort work data sets.

14. (Optional) In the **Nbr of SortWork DDs** field, specify the number of SORTWKnn DD statements used for Db2 Change Accumulation Tool sort work data sets.

15. In the **Sortlib DSN** field, specify the SORTLIB data set name.


### Adding object profiles to a job profile

Follow these steps to add object profiles to a job profile.

#### Procedure

1. **Access the Adding Profiles to the Job Profile panel.** For more information, see "Creating a job profile" on page 173 or "Updating a job profile" on page 181.

2. **In the Add Objects Profiles** field, type **Y** and press Enter. The Objects Profile Display panel is displayed:

![Objects Profile Display panel](image)

3. **Specify values in the Profile Like and Creator Like fields** to find the object profile of interest and press Enter.

4. **In the Cmd field next to the object profiles you want to add,** type **S** and press Enter. The following message is displayed:

   GGC23I - The selected profile(s) have been successfully added to your jobs profile.
5. When you finish selecting object profiles from the list, press PF3. The Update Jobs Profile Display panel is displayed, which shows the object profiles you selected:

```
GGC$JPRU V3R1 ----- Update Jobs Profile Display ----- YYYY/MM/DD HH:MM:SS
Option ==> Scroll ==> CSR
```

```
Line Commands: V - View A - Add D - Delete U - Update R - Repeat
G - show/hide Group
```

```
Creator: USERA Profile: QUICKBUILD User: USERA
```

```
Share Option N (U - Update, Description
V - View,
N - No)
Update Job Generation Options N (Yes/No) Row 1 of 4 
```

```
Excp Rule
Cmd Order Accp Rjct Type Name Creator
1 OBJS GGCOP1 USERA
2 OBJS GGCOP2 USERA
```


### Adding utility profiles to a job profile

Follow these steps to add utility profiles to a job profile.

**Procedure**

1. Access the Adding Profiles to the Job Profile panel. For more information, see "Creating a job profile" on page 173 or "Updating a job profile" on page 181.
2. In the Add Utility Profiles field, type Y and press Enter. The Utilities Profile Display panel is displayed:

```
GGC$UPRD V3R1 -------- Utilities Profile Display -------- 2017/02/23 14:11:03
Option ==> Scroll ==> CSR
```

```
Line Commands: C - Create D - Delete E - Export I - Import S - Select
U - Update V - View
```

```
Profile Like ..* DB2 Subsystem: SS01
Creator Like ..USER*
```

```
No rows to display
```

```
Cmd Name Creator Upt
- GGCUP MINILOG USERA U
- GGCUP IMAGECOPY USERA U
- GGCUP VSAM USERB U
- GGCUP BOTH USERB U
```

```
Figure 86. Utilities Profile Display panel
```

3. Specify values in the **Profile Like** and **Creator Like** fields to find the utility profile of interest and press Enter.
4. In the **Cmd** field next to the utility profiles you want to add, type S and press Enter. The following message is displayed:

```
GGCM237I - The selected profile(s) have been successfully added to your jobs profile.
```

```
Figure 85. Update Jobs Profile Display panel
```

180 IBM Db2 Change Accumulation Tool for z/OS
5. When you finish selecting object profiles from the list, press PF3. The Update Jobs Profile Display panel is displayed, which shows the utility profiles you selected:

![Update Jobs Profile Display panel](image)

Figure 87. Update Jobs Profile Display panel


**Updating a job profile**

Follow these steps to update a job profile.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the **Option** field and press Enter.

2. In the **Cmd** field next to the job profile you want to update, type **U** and press Enter. The Update Jobs Profile Display panel is displayed:

![Update Jobs Profile Display panel](image)

Figure 88. Update Jobs Profile Display panel

3. You can now update the job profile in the following ways:
   - To view a job profile, type **V** in the **Cmd** field next to the job profile you want to view and press Enter.
To add an object or utility profile to the job profile, type A in the **Cmd** field and press Enter. For more information, see “Adding object profiles to a job profile” on page 179 and “Adding utility profiles to a job profile” on page 180.

To delete an object or utility profile from the job profile, type D in the **Cmd** field next to the profile you want to delete and press Enter.

To update an object or utility profile, type U in the **Cmd** field next to the profile of interest and press Enter. For more information, see “Updating an object profile” on page 114 and “Updating a utility profile” on page 168.

To repeat a job profile line, type R in the **Cmd** field next to the profile you want to repeat and press Enter.

The $ line command is not used by Db2 Change Accumulation Tool.

To change the share option for the job profile, type the appropriate value in the **Share Option** field and press Enter. Valid values are:

- **U**: The job profile can be updated by other users.
- **V**: The job profile can be viewed but not updated by other users.
- **N**: The job profile can not be viewed or updated by other users.

4. In the **Update Setup Override Options** field, specify one of the following values:

- **Y**: Access the Setup Override Options panel after you complete the Generation Options panel. For more information, see “Updating setup override options” on page 177.

- **N**: Do not access the Setup Override Options panel after you complete the Generation Options panel.

5. Press PF3.

---

### Deleting a job profile

Follow these steps to delete a job profile.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the **Option** field and press Enter.

2. In the **Cmd** field next to the job profile you want to delete, type D and press Enter. You are prompted to confirm the deletion as shown in the following figure:

   ![Confirm Deletion panel](image)

   *Figure 89. Confirm Deletion panel*

3. To confirm the deletion, in the **Delete** field, type Y and press Enter. The following message appears to confirm the deletion:

   ```
   GGC052I - Profile "USERA.GGCJP2" has been successfully deleted
   ```

---

### Renaming a job profile

Follow these steps to rename a job profile.
Procedure
1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the Option field and press Enter.
2. In the Cmd field next to the job profile you want to rename, type R and press Enter. The Rename JOBS Profile panel is displayed:

![Rename JOBS Profile Panel](image)

3. In the New Profile > Profile Name field, type the new profile name.
4. (Optional) In the Description field, type a description of the renamed job profile.
5. Press Enter.

Exporting a job profile

Follow these steps to export a job profile.

Procedure
1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the Option field and press Enter.
2. In the Cmd field next to the job profile you want to export, type E and press Enter. The Export Options panel is displayed:

![Export Options Panel](image)

3. Specify the options as appropriate for your job profile export.
   a. In the Export SSID field, specify the target SSID to which you want to export the profile. If you choose to not export to a data set, the new profile will be directly exported to this subsystem.
b. In the **Export to data set** field, type **Y** if you want to export the profile to a data set.

c. In the **Create export data set** field, specify one of the following values:
   - **Y** Creates the export data set.
   - **N** Does not create an export data set. You can instead use an existing data set. Existing data sets must be FB type data sets with an LRECL of 4096.

d. In the **Data set name** field, specify the data set name to which the profile is to be exported.

e. In the **Member** field, specify the partitioned data set (PDS) member to which the profile is to be exported.

f. Verify that the job profile shown at the bottom of the Export Options panel is the one you want to export. These read-only values are shown for the job profile:
   - **Type** The type of profile you are exporting.
   - **Name** The job profile name.
   - **Creator** The creator ID of the job profile.
   - **Upd** The update option for the job profile.
   - **Status** The status of the job profile.

4. Press Enter.

5. Press Enter. The following message is displayed to confirm the export:

   GGCM152I - Import/Export Successful

---

**Importing a job profile**

Follow these steps to import a job profile.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the **Option** field and press Enter.

2. Type I in the **Cmd** line next to the job profile you want to import and press Enter. The Import Options panel is displayed:

   ![Import Dataset panel](image)

   *Figure 92. Import Dataset panel*

3. Specify the appropriate values as appropriate for your objectives.
   - a. In the **Target SSID** field, specify the SSID from which you want to import the profile.
   - b. In the **Source Data Set Name** field, specify the data set name from which you want to import the profile.
c. In the **Member** field, specify the partitioned data set (PDS) member from which the profile is to be imported.

4. Press Enter. The following message is displayed to confirm the import:

   GGCM152I - Import/Export Successful

---

**Viewing a job profile**

Follow these steps to view a job profile.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the **Option** field and press Enter.
2. Type **V** in the **Cmd** line next to the job profile you want to view and press Enter. The View Jobs Profile Display panel is displayed:

   ![View Jobs Profile Display panel](image)

   *Figure 93. Update Jobs Profile Display panel*

3. Press PF3 to exit.

---

**Building jobs**

Follow these steps to build a job.

**Before you begin**

To run Db2 Change Accumulation Tool jobs, users must be authorized to use USS on the z/OS machine.

**Procedure**

1. On the IBM DB2 Change Accumulation Tool main menu, type 3 in the **Option** field and press Enter.
2. Type **B** in the **Cmd** field next to the job profile you want to build and press Enter. The Build Job panel is displayed:
3. Specify the build job options as needed for your objectives.
   a. In the **Build Online or Batch** field, specify one of the following values:
      - **O** (Default) Build the job online. If you choose to build the job online, Db2 Change Accumulation Tool checks the objects and builds the Db2 Change Accumulation Tool job immediately.
      - **B** Build the job in batch. If you choose to build the job in batch, Db2 Change Accumulation Tool builds a job that, when executed, builds the Db2 Change Accumulation Tool job.
   b. In the **Edit Generated Job** field, specify one of the following values:
      - **Y** (Default) Edit the job after it has been generated. The job appears in an edit session after it has been generated.
      - **N** Does not open edit the job after it has been generated.
   c. In the **Schedule Job** field, specify one of the following values:
      - **Y** The resulting job (the job specified in the Member field) is scheduled using the Db2 administrative task scheduler.
      - **N** The resulting job (the job specified in the Member field) is not scheduled using the Db2 administrative task scheduler.
   d. In the **Build Job in Data Set** field, type the fully qualified data set name where you want to save the generated job. This data set must exist and can be sequential or a PDS. In online mode, this data set holds the generated Db2 Change Accumulation Tool job. In batch mode, this data set holds the batch JCL to generate the Db2 Change Accumulation Tool job.
   e. If the data set to hold the generated job is a PDS, in the **Member** field, type a member name for the job output here. If the member does not exist, Db2 Change Accumulation Tool will create it.
   f. In the **Job Cards** field, type a valid job card for your site.
4. Press Enter.
5. If there are errors encountered during the job build, the Messages Generated panel is displayed:
6. To view message created while building the job, type Y in the **View messages** field and press Enter. The Build Process Message Display panel is displayed:

```
Messages Generated for USERA.TEST
GGC$BMSA
24 Informational, 1 Warning, and 0 Error
Messages were created while building the job online for JOBS
profile USERA.GGC JOB PROF 1

View messages? . . . Y (Y - Yes, N - No)
View job summary? . . . N (Y - Yes, N - No)
```

**Figure 95. Messages Generated panel**

7. Press PF3 when you are finished viewing the messages. An EDIT window displays the generated job.

Chapter 9. Db2 Change Accumulation Tool syntax

Db2 Change Accumulation Tool provides sample JCL that you can customize according to your site's individual needs.

A syntax diagram provides the information necessary for constructing valid Db2 Change Accumulation Tool syntax.

Topics:
- “Prerequisites”
- “Db2 Change Accumulation Tool sample JCL”
- “Db2 Change Accumulation Tool syntax definitions” on page 190
- “Db2 Change Accumulation Tool syntax diagram” on page 214
- “Considerations for creating and reading mini log data sets” on page 220

Prerequisites

To use Db2 Change Accumulation Tool, a valid full image copy of the table space must be recorded in SYSCOPY. Additionally, you must have plan execution access for the subsystems on which you intend to run Db2 Change Accumulation Tool.

Db2 Change Accumulation Tool must also be able to access the archive and active logs needed to build the new image copy. Db2 Change Accumulation Tool uses Db2 throughout its execution path and therefore Db2 must be up in order for Db2 Change Accumulation Tool to start and run.

Db2 Change Accumulation Tool sample JCL

The Db2 Change Accumulation Tool sample JCL is supplied in highlevel.SGGCSAMP, where highlevel is the high-level qualifier of the installed Db2 Change Accumulation Tool libraries. The member name of the sample JCL is GGCPROC.

Note: The sample JCL illustrates how to setup a single Db2 Change Accumulation Tool job to execute on two table spaces at the same time. Running the job will produce five new image copies and update the SYSCOPY catalog table (a local primary, local backup, recovery primary and recovery backup for space 1 and a local primary for space 2).

Customizing the sample JCL for your site

Follow these steps to customize the sample JCL for your site.

Procedure

1. (Required) Enter a valid job card for your site. If you anticipate a large number of log records to be processed, allocate a generous REGION size to avoid out-of-memory errors.

2. (Required) In the EXEC statement, enter the subsystem ID (ssid) for the subsystem on which you will be running the Db2 Change Accumulation Tool job. For example,

   //CHGACCUM EXEC PGM=GGCMAIN,PARM='A50B'

189
3. (Required) Change the STEPLIB DD data set filenames to point to the Db2 Change Accumulation Tool program library.

4. (Required) Specify the appropriate INFOM DD. The sample JCL includes the following:

```
//INFOM DD SYSOUT**
```

**Note:** The following INFOM DD definitions are both valid:

```
//INFOM DD SYSOUT**
//INFOM DD DUMMY
```

5. (Optional) Include the SYSUDUMP DD statement to facilitate finding and correcting problems encountered when running the job.

6. (Required) Specify a data set or * for the job output.

7. (Required) Specify a data set or * for messages for the SORTMSGS utility.

8. (Required) Specify the VSAM control file for Db2 parameters.

9. (Required) Specify the output data sets that will hold the new full image copies either using the CAxxnnnDD statements (which supports <5000 objects) or the IC_xx control cards (which support of >5000 objects). When using the CAxxnnnDD DD statements, specify at least one CAxxnnn DD statement is needed for each SPACE card in your job where xx is LP, LB, RP or RB and nnnn is a four-digit integer.

**Notes:**

a. Building jobs that approach 20,000 objects require significant resources for processing. If building with batch, use a region size of 0M, which is unlimited. If building from TSO, ensure a TSO region size of at least 80000.

b. In certain error conditions, Db2 Change Accumulation Tool forces an abnormal termination with user abend code U0012. This condition forces the deletion of the Db2 Change Accumulation Tool image copy data set when the disposition of the output data set holding the new full image copy is defined as:

\[\text{DISP}=(\text{NEW,CATLG,DELETE})\]

10. (Required) The SYSINGGC data set holds the parameters that define the Db2 Change Accumulation Tool job options.

11. (Required) Modify the Db2 Change Accumulation Tool syntax as needed for your site.

---

**Db2 Change Accumulation Tool syntax definitions**

Db2 Change Accumulation Tool keywords are not positional. For readability, include each keyword on a single line. To insert comments, include a hyphen on the line after the keyword. Characters that appear after the hyphen are treated as comments until the end of the line. To comment out a keyword, place a hyphen in column 3.

The following details the syntax elements supported by the Db2 Change Accumulation Tool.

**BUFFERS_IN_31_BIT**

Include this optional item to use 31 bit storage for buffers. If BUFFERS_IN_31_BIT is not specified, 24 bit storage for buffers will be used.
The BUFFERS_IN_31_BIT control card can be specified in the online using the Buffers in 31 Bit Storage field on the Utility Profile Options (GGC$UOPT) panel:

```
Buffers in 31 Bit Storage = Y
  BUFFERS_IN_31_BIT

Buffers in 31 Bit Storage = N
  Omit the BUFFERS_IN_31_BIT control card.
```

CHANGE_ACCUM
The main control card. An open parenthesis must follow this keyword. The remainder of the keywords must be contained within the delimiters.

CHECK_AFTER_QUIESCE
When present, this control card causes GGC to check space activity after the specified end point and if some activity is found the end point is set to TO_CURRENT.

Note:
- The CHECK_AFTER_QUIESCE control card is valid for any job type when the space end point TO_QUIESCE is specified.
- NO_SYSLGRNX cannot be specified with CHECK_AFTER_QUIESCE (the reading of SYSLGRNX must be allowed).
- CHECK_AFTER_QUIESCE can be specified at the SPACE, GROUP or job level.
- When specified at the SPACE level, GGC checks activity for the space after the designated QUIESCE point and if activity is found, the end point for the space will be set to TO_CURRENT to include the activity.
- When CHECK_AFTER_QUIESCE is not applied at the SPACE, GROUP or JOB level, TO_QUIESCE will be performed.
- UNIFIED or UNIFIED_WARNING cannot be specified with CHECK_AFTER_QUIESCE.

The CHECK_AFTER_QUIESCE control card can be specified in the online using the Check After Quiesce field on the Utility Profile Options (GGCSUOPT) panel:

```
Check After Quiesce = Y
  CHECK_AFTER_QUIESCE

Check After Quiesce = N
  Omit the CHECK_AFTER_QUIESCE control card.
```

CHECK_DATA NO|WRITE|OPERATION
Include this optional keyword to specify if and when you want Db2 Change Accumulation Tool to check data page integrity. Specify this keyword outside the delimiters of the GROUP keyword. This keyword accepts the following values:

NO  Do not check data page integrity.

WRITE  (DEFAULT) Check data page integrity before writing out a data page.

OPERATION  Check data page integrity both before and after each log apply operation and before writing out a data page.
CONTINUE_ON_ERROR
Causes most errors to be ignored and the processing to continue.

Note: If this control card is specified and errors higher than RC=4 are encountered, they will be overridden and a RC=4 will be reported and the job will not fail. I/O errors and other serious issues (out-of-memory, for instance) will not be ignored and will still cause aborts.

The CONTINUE_ON_ERROR control card can be specified in the online using the Continue on Errors field on the Utility Profile Options (GGC$UOPT) panel:

Continue on Errors = Y
CONTINUE_ON_ERROR

Continue on Errors = N
Omits the CONTINUE_ON_ERROR control card.

CREATOR creator INDEX index PARTITION number
Where:

CREATOR creator
The index creator name. Valid values for creator can be up to 128 characters in length.

INDEX index
The index name. Valid values for index can be up to 128 characters in length.

PARTITION number
(Optional) This optional item indicates the partition number, if the table space is partitioned. Replace number with the appropriate partition number for your site. To include all partitions, specify 0. If the table space is not partitioned, do not include this control card (or comment it out). The PARTITION item is optional for each SPACE keyword specified in your job.

The CREATOR, INDEX and PARTITION control cards can be specified in the online by adding indexes to an object profile.

DATA_BASE database SPACE_NAME tablespace PARTITION number
Where:

DATA_BASE database
(Required) This keyword indicates the database name. Replace database with the appropriate database name for your site, up to 8 characters. The DATA_BASE keyword is required for each SPACE keyword specified in your job.

SPACE_NAME tablespace
(Required) This keyword indicates the table space name. Replace tablespace with the appropriate table space name for your site, up to 8 characters. The SPACE_NAME keyword is required for each SPACE keyword specified in your job.

PARTITION #
(Optional) This optional item indicates the partition number, if the table space is partitioned. Replace number with the appropriate partition number for your site. To include all partitions, specify 0. If the table space is not partitioned, do not include this control card.
(or comment it out). The PARTITION item is optional for each SPACE keyword specified in your job.

The CREATOR, INDEX and PARTITION control cards can be specified in the online by adding table spaces to an object profile.

**DATA_BASE** database SPACE_NAME indexspace PARTITION #
Where:

**DATA_BASE database**
(Required) This keyword indicates the database name. Replace database with the appropriate database name for your site, up to 8 characters. The DATA_BASE keyword is required for each SPACE keyword specified in your job.

**SPACE_NAME indexspace**
(Required) This keyword indicates the index space name. Replace indexspace with the appropriate index space name for your site, up to 8 characters. The SPACE_NAME keyword is required for each SPACE keyword specified in your job.

**PARTITION #**
(Optional) This optional item indicates the partition number, if the table space is partitioned. Replace # with the appropriate partition number for your site. To include all partitions, type 0. If the table space is not partitioned, do not include this control card (or comment it out). The PARTITION item is optional for each SPACE keyword specified in your job.

**DBID 'dbid,dbid'**
The database IDs of the source and target DBIDs.

**Note:** When specifying the DBID, PSID, and OBID pairs, all pairs should be space separated and the source ID is listed first with the target ID listed second. Each pair should be defined on a new line. Define multiple OBID pairs as necessary.

**DB2_SORT YES | NO**
Indicates whether to use the Db2 Sort product.

- **YES** - The run will use Db2 Sort for sort operations if Db2 Sort is available. If Db2 Sort is not found, the run will use the system sort program that is installed on the LPAR (DFSORT or Syncsort).
- **NO** - The run will use the system sort program that is installed on the LPAR (DFSORT or Syncsort).

**END_LRSN**
END_LRSN byte string directs Db2 Change Accumulation Tool to read the log and to incorporate data into the image copy up to the specified LRSN. Replace byte string with the desired value.

The END_LRSN control card can be specified in the ISPF interface using the **Spec Hex End Pt/Quiesce #** field on the Utility Profile Options (GGC$UOPT) panel:

**Spec Hex End Pt/Quiesce # = byte_string**
If a hexadecimal end point is specified in the Spec Hex End Pt/Quiesce # field and the job is built in a data sharing environment, END_LRSN 'byte_string' will be added to the syntax.

**END_RBA**
END_RBA byte string directs Db2 Change Accumulation Tool to read the
log and to incorporate data into the image copy up to the specified RBA. Replace \textit{byte string} with the desired value.

\textbf{Note:}

\begin{itemize}
  \item END_RBA is not valid in a data sharing environment.
  \item If the RBA value specified on END_RBA is a valid RBA then Db2 Change Accumulation Tool will use this RBA as an end point for the Db2 Change Accumulation Tool Image Copy. If the RBA value specified is not a valid RBA then Db2 Change Accumulation Tool will use the next higher valid RBA as an end point for the Db2 Change Accumulation Tool Image Copy.
\end{itemize}

The END_RBA control card can be specified in the online using the \texttt{Spec Hex End Pt/Quiesce #} field on the Utility Profile Options (GGC$UOPT) panel:

\begin{verbatim}
Spec Hex End Pt/Quiesce # = byte_string
\end{verbatim}

If a hexadecimal end point value is specified in the \texttt{Spec Hex End Pt/Quiesce #} field and the job is to be built in a non-data sharing environment, END_RBA 'byte_string' will be added to the syntax.

\textbf{FORCE_COPIES}

Duplicates the old image copy into a new image copy, even if no mini logs or log records are found following the last image copy.

\textbf{Note:}

\begin{itemize}
  \item FORCE_COPIES is applicable for WRITE_TO_COPIES, WRITE_TO_VSAM, and WRITE_TO_BOTH. For example, if you specify WRITE_TO_VSAM and there is no log activity since the last image copy, specifying the FORCE_COPIES keyword will cause Db2 Change Accumulation Tool to perform the write to VSAM regardless. If FORCE_COPIES is not used, any partitions for which there was no log activity after the last image copy, Db2 Change Accumulation Tool will not perform write to VSAM.
  \item When FORCE_COPIES is used with OBIDXLAT WTV on a partitioned table space with LOB data type, then the data in Target DB.TS will be in sync with the Source for all partitions. If FORCE_COPIES is not used, any partitions for which there was no log activity after the last image copy will not undergo OBIDXLAT to the Target.
\end{itemize}

The FORCE_COPIES control card can be specified in the online using the \texttt{Force write phase for IC/WTV} field on the Utility Profile Options (GGC$UOPT) panel:

\begin{verbatim}
Force write phase for IC/WTV = Y
FORCE_COPIES
Force write phase for IC/WTV = N
\end{verbatim}

\textbf{GROUP}

Use the \texttt{GROUP} keyword to enclose one or more \texttt{SPACE} keywords. You can specify multiple \texttt{GROUP} keywords in a single job, each holding one or more \texttt{SPACE} keywords. An open parenthesis must follow the \texttt{GROUP} keyword. Each \texttt{GROUP} keyword must contain one or more \texttt{SPACE} keywords and may contain the optional MINI_LOG_DSN_1 (and, if MINI_LOG_DSN_1 is defined, the optional MINI_LOG_DSN_2) item within its delimiters.
The GROUP() syntax allows you to use different mini log data sets for multiple groups of spaces. For example, if you want to put all log records for ten SPACE() sets on one mini log, then one GROUP() can be used, as in GROUP(SPACE() SPACE() SPACE() ... MINILOG1 + MINILOG2). If you want one SPACE() per mini log, then you would use ten SPACE sets within one group, such as GROUP(SPACE(MINI_LOG_DSN_1 + optional MINI_LOG_DSN_2) SPACE(MINILOG1 + MINILOG2) ...).

Using the technique where multiple space sets exist within one group set and the mini log data set names are specified outside the bounds of the SPACE() context is called group-level mini logs. These mini logs contain log records from all of the objects in the group.

Using the technique where the mini log data set names are specified within the context of the SPACE() indicates space-level mini log processing. Here, one mini log is used to hold the Db2 log records for this object only for the range of log records stipulated by the other control cards.

Group-level mini log files are opened for output all at once during the Db2 log read process and are written to as log records are selected. Space-level mini logs are written to after the log record read process is complete and the records have been sorted in object order. They are then written to in sorted order, one space level mini log pair at a time.

On a WRITE_TO_VSAM run or an image copy create run that uses mini logs for input, selected group-level mini logs and their records have to be sorted before being used. Space-level mini logs associated with an object are opened together, not re-sorted, and merged along with any extra sorted Db2 log records needed to satisfy the log requirements for the task.

**IC_CATALOG**
This optional keyword is set within the context of the IC_** sets (IC_LP, IC_LB, IC_RP, IC_RB) and if present in the Db2 Change Accumulation Tool syntax, sets DISP=CATLG. If the IC_CATALOG keyword is not present, then DISP=KEEP.

**IC_DATA_CLASS**
This optional keyword is set within the context of the IC_** sets (IC_LP, IC_LB, IC_RP, IC_RB) and specifies the SMS data class to be used.

**IC_DEVICE devicename**
This optional keyword is set within the context of the IC_** sets (IC_LP, IC_LB, IC_RP, IC_RB) and specifies an 8-character device name.

**IC_DSN 'dsn'**
This keyword is set within the context of the IC_** sets (IC_LP, IC_LB, IC_RP, IC_RB) and specifies the data set name to be used when dynamically allocating image copies. Replace dsn with the appropriate data set name for the image copy.

**IC_EXP_DATE**
This optional keyword is set within the context of the IC_** sets (IC_LP, IC_LB, IC_RP, IC_RB) and specifies a 7-digit tape expiration date (for example, 2006365).

**IC_LP, IC_LB, IC_RP, IC_RB**
One or more of these optional keywords are set within the context of the SPACE() set and enclose the dynamic allocation parameters for the local primary, local backup, recovery site primary and recovery site backup image copies, respectively. An open parenthesis must follow the keywords and each set must contain the IC_DSN keyword and optionally can contain
the other dynamic allocation attribute keywords (IC/catalog, IC/device, IC/space, IC/stor_class, IC/mgmt_class, IC/data_class, IC/exp_date, IC/retpd) followed by a close parenthesis.

**Note:** Coding IC_xx control cards at the SPACE level and JCL DD cards is mutually exclusive with coding mini log data sets at the SPACE or GROUP level. Db2 Change Accumulation Tool only produces mini logs or image copies for a job step.

The supporting keywords that accompany the IC_* keywords include IC/catalog, IC/device, IC/dsn, IC/space, IC/stor_class, IC/mgmt_class, IC/volume_count, IC/data_class, IC/exp_date, and IC/retpd.

**IC/mgmt_class mgmtclass**
This optional keyword is set within the context of the IC_** sets (IC/LP, IC/LB, IC/RP, IC/RB) and specifies the SMS management class to be used.

**IC/retpd**
This optional keyword is set within the context of the IC_** sets (IC/LP, IC/LB, IC/RP, IC/RB) and specifies a 4-digit retention period added to the creation date to form an expiration date.

**IC/space**
This optional keyword is set within the context of the IC_** sets (IC/LP, IC/LB, IC/RP, IC/RB) and, when specified, automatically generates the space allocations of the data set. For example, a typical generated IC_SPACE control card would be: IC_SPACE ' (TRK,(50,5),RLSE) '.

**IC/stor_class storclass**
This optional keyword is set within the context of the IC_** sets (IC/LP, IC/LB, IC/RP, IC/RB) and specifies the SMS storage class to be used.

**IC/volume_count 'n'**
This optional keyword is set within the context of the IC_** sets (IC/LP, IC/LB, IC/RP, IC/RB) and specifies the maximum number of volumes that can be used for the Db2 Change Accumulation Tool Image Copy data sets. Valid values are in the range of 1 to 255 or the control card is left out, it defaults to the system default.

**IMAGE_COPY_PREFERENCE LPLBRPRB | IMAGE_COPY_PREFERENCE syscopyrows**
This optional item works in conjunction with the LOCAL_SITE and RECOVERY_SITE control cards and causes Db2 Change Accumulation Tool to use the user-specified scan preference. The SYSCOPY rows output by Db2 Change Accumulation Tool are determined by the presence of DD cards in the JCL.

- **IMAGE_COPY_PREFERENCE** uses the user-specified scan preference. This option accepts the following options:
  - LB–Scans for LB type image copies in SYSCOPY.
  - LP–Scans for LP type image copies in SYSCOPY.
  - LPLB–Scans first for LP type image copies, then for LB type image copies (and always uses LP type image copies on identically time-stamped SYSCOPY rows).
  - LPLBRB–Allows the SYSCOPY scan program to pick an RB if it came up first while scanning SYSCOPY backwards for a starting point.
LPLBRPRBFCLP (Default) Scans for LP, LB, RP, RB and FC type image copies (using the earlier listed image copy type on identically time-stamped SYSCOPY rows).

One to five codes in total can be entered in a packed 10-character maximum field. Valid codes are LP (local primary), LB (local backup), RP (recovery primary), RB (recovery backup), and FC (Flash Copy).

Notes:
1. This item is not required for the Db2 Change Accumulation Tool to run. If LOCAL_SITE, RECOVERY_SITE, and IMAGE_COPY_PREFERENCE are missing from the control cards, Db2 Change Accumulation Tool detects the operating mode Db2 is running under and automatically inserts either LOCAL_SITE, RECOVERY_SITE based on what is in ZPARM.
2. This option sets the mode in which Db2 Change Accumulation Tool operates. If LOCAL_SITE is coded, only local site type image copies are scanned for use. If RECOVERY_SITE is coded, only recovery site type image copies are scanned for use. If IMAGE_COPY_PREFERENCE is coded, the user-specified scanning preference is used.

The LOCAL_SITE, RECOVERY_SITE and IMAGE_COPY_PREFERENCE control cards can be specified in the online using the SYSCOPY Scan Operating Mode field on the Utility Profile Options (GGC$UOPT) panel:

SYSCOPY Scan Operating Mode = L
LOCAL_SITE

SYSCOPY Scan Operating Mode = R
RECOVERY_SITE

SYSCOPY Scan Operating Mode = Z
Omits the LOCAL_SITE, RECOVERY_SITE, and IMAGE_COPY_PREFERENCE control cards; uses the value found in the ZPARMS on the Db2.

SYSCOPY Scan Operating Mode = U
IMAGE_COPY_PREFERENCE syscopyrows

Note: If U is specified in the SYSCOPY Scan Operating Mode field, you must also specify a syscopyrows value in the SYSCOPY Selection Pref field. The default syscopyrows value is LPLBRPRB.

INCR_IN_DSN ‘dsn’
The incremental DSN that is to be included in OBIDXLAT processing.

INCR_IN_LOGPOINT ‘logpoint’
The 6-byte hexadecimal value of the RBA/LRSN for the incremental DSN.

INCREMENTAL SORT | MERGE
The INCREMENTAL keyword is no longer supported (it is ignored). The internal method used is MERGE. If you run JCL that includes INCREMENTAL SORT, message GGC3260I will be issued and INCREMENTAL MERGE will be used instead.

INDEX index
The index name. Valid values for index can be up to 128 characters in length.

LOCAL_SITE | RECOVERY_SITE
This optional item works in conjunction with the
IMAGE_COPY_PREFERENCE control card and tells Db2 Change Accumulation Tool which SYSCOPY rows to consider when finding a starting point for processing. LOCAL_SITE uses the LP/LB rows, RECOVERY_SITE uses the RP/RB rows. The SYSCOPY rows output by Db2 Change Accumulation Tool are determined by the presence of DD cards in the JCL.

- LOCAL_SITE is the default setting and it refers to the LP/LB rows to find a starting point for processing. Equal priority is given to LP and LB rows, so if Db2 retrieves the LB row first, that's what will be used.
- RECOVERY_SITE uses the RP/RB rows to find a starting point for processing. Equal priority is given to RP and RB rows, so if Db2 retrieves the RB row first, that's what will be used.

Notes:

1. This item is not required for the Db2 Change Accumulation Tool to run. If LOCAL_SITE, RECOVERY_SITE, and IMAGE_COPY_PREFERENCE are missing from the control cards, Db2 Change Accumulation Tool detects the operating mode Db2 is running under and automatically inserts either LOCAL_SITE, RECOVERY_SITE based on what is in ZPARM.

2. This option sets the mode in which Db2 Change Accumulation Tool operates. If LOCAL_SITE is coded, only local site type image copies are scanned for use. If RECOVERY_SITE is coded, only recovery site type image copies are scanned for use. If IMAGE_COPY_PREFERENCE is coded, the user-specified scanning preference is used.

The LOCAL_SITE, RECOVERY_SITE and IMAGE_COPY_PREFERENCE control cards can be specified in the online using the SYSCOPY Scan Operating Mode field on the Utility Profile Options (GGC$UOPT) panel:

SYSCOPY Scan Operating Mode = L
LOCAL_SITE

SYSCOPY Scan Operating Mode = R
RECOVERY_SITE

SYSCOPY Scan Operating Mode = Z
Omits the LOCAL_SITE, RECOVERY_SITE, and IMAGE_COPY_PREFERENCE control cards; uses the value found in the ZPARMs on the Db2.

SYSCOPY Scan Operating Mode = U
IMAGE_COPY_PREFERENCE syscopyrows

Note: If U is specified in the SYSCOPY Scan Operating Mode field, you must also specify a syscopyrows value in the SYSCOPY Selection Pref field. The default syscopyrows value is LPLBRPRB.

LOG_COPY_PREFERENCE R1R2A1A2 | LOG_COPY_PREFERENCE log_tokens

Specifies the order in which the archive and active log lists in the BSDS are to be scanned when Db2 Change Accumulation Tool searches for a log to satisfy a need for log records. The value you specify in this field must use the syntax R1 (archive log copy #1), R2 (archive log copy #2), A1 (active log #1), and A2 (active log #2). All four unique values must be specified, even if copy #2 is not used in Db2. For example:

- A1A2R1R2 - Scans the active logs before scanning the archive logs.
Note: This is not a recommended setting, as Db2 may attempt to open one of the active logs for output that Db2 Change Accumulation Tool is currently reading for input. This can result in an open error within Db2.

- R1R2A1A2 - (Default) Scans the archive logs first and uses archive logs when the same range exists in an archive and active log.

The LOG_COPY_PREFERENCE control card can be specified in the online using the Log Reader Copy Preference field on the Utility Profile Options (GGC$UOPT) panel:

Log Reader Copy Preference = log_tokens
LOG_COPY_PREFERENCE log_tokens

MINILOG_SHARELEVEL REFERENCE | CHANGE
Creates SHRLEVEL CHANGE mini logs, SHRLEVEL REFERENCE mini logs, or bypasses transaction consistency check for WRITE_TO_VSAM on a recovery TO_CURRENT.

The MINILOG_SHARELEVEL control card can be specified in the online using the ML Sharelevel field on the Utility Profile Options (GGC$UOPT) panel:

ML Sharelevel = blank
Omits the MINILOG_SHARELEVEL control card.

ML Sharelevel = R
MINILOG_SHARELEVEL REFERENCE

ML Sharelevel = C
MINILOG_SHARELEVEL CHANGE

MINI_LOG_DSN_1 'dsn1'
Include this optional item to specify primary mini log data set names that Db2 Change Accumulation Tool will use when creating primary mini log data sets. Replace dsn1 with the data set name of the primary mini log data set (if you use the online interface to generate your JCL, the data set name will be automatically placed inside quotation marks but they are not required). This optional item can be specified inside the delimiters of either the GROUP keyword or the SPACE keyword, but not both.

Notes:
1. If MINI_LOG_DSN_1 is coded, MINI_LOG_DSN_2 is optional. If MINI_LOG_DSN_2 is specified, then MINI_LOG_DSN_1 must also be specified.
2. If you specify the MINI_LOG_DSN_* control cards at the GROUP level, you cannot also specify it at the SPACE level or vice versa. The specification of the MINI_LOG_DSN_* control cards at GROUP and SPACE levels is mutually exclusive.
3. Mini log data sets coded either at the SPACE or GROUP level are also mutually exclusive with coding IC_xx control cards at the SPACE level and JCL DD cards. Db2 Change Accumulation Tool only produces mini logs or image copies for a job step.
4. The previous control card, MINI_LOG_DSN, is functionally equivalent to the new MINI_LOG_DSN_1 control card. The online interface will only generate the new MINI_LOG_DSN_1 control card going forward.
5. Data set naming rules and conventions at your site will determine which DASD pool a mini log data set is to be written to.
The MINI_LOG_DSN_1 control card can be specified in the online using the **ML Data Set 1 Name Generation** field on the Utility Profile Options (GGC$UOPT) panel:

**ML Data Set 1 Name Generation = Y**

MINI_LOG_DSN_1

**ML Data Set 1 Name Generation = N**

Omits the MINI_LOG_DSN_1 control card.

**MINI_LOG_DSN_2 'dsn2'**

Include this optional item to specify secondary mini log data set names that Db2 Change Accumulation Tool will use when creating secondary mini log data sets. Replace *dsn2* with the data set name of the secondary mini log data set (if you use the online interface to generate your JCL, the data set name will be automatically placed inside quotation marks but they are not required). This optional item can be specified inside the delimiters of either the GROUP keyword or the SPACE keyword, but not both.

**Notes:**

1. If MINI_LOG_DSN_1 is coded, MINI_LOG_DSN_2 is optional. If MINI_LOG_DSN_2 is specified, then MINI_LOG_DSN_1 must also be specified.

2. If you specify the MINI_LOG_DSN_* control cards at the GROUP level, you cannot also specify it at the SPACE level or vice versa. The specification of the MINI_LOG_DSN_* control cards at GROUP and SPACE levels is mutually exclusive.

3. Mini log data sets coded either at the SPACE or GROUP level are also mutually exclusive with coding IC_xx control cards at the SPACE level and JCL DD cards. Db2 Change Accumulation Tool only produces mini logs or image copies for a job step.

4. The previous control card, MINI_LOG_DSN, is functionally equivalent to the new MINI_LOG_DSN_1 control card. The online interface will only generate the new MINI_LOG_DSN_1 control card going forward.

5. Data set naming rules and conventions at the customer’s site will determine which DASD pool a mini log data set is to be written to.

The MINI_LOG_DSN_2 control card can be specified in the online using the **ML Data Set 2 Name Generation** field on the Utility Profile Options (GGC$UOPT) panel:

**ML Data Set 2 Name Generation = Y**

MINI_LOG_DSN_2

**ML Data Set 2 Name Generation = N**

Omits the MINI_LOG_DSN_2 control card.

**NO_MINILOG_CHECKPOINTS**

Skip writing checkpoint records to the mini log files while at the same time maintaining their presence with a new column in the mini log control table. Since they aren’t written, the code notices that the file would be empty, and deletes it.

The NO_MINILOG_CHECKPOINTS control card can be specified in the online using the **Add Checkpoint Records to ML** field on the Utility Profile Options (GGC$UOPT) panel:

**Add Checkpoint Records to ML = Y**

Omits the NO_MINILOG_CHECKPOINTS control card.
Add Checkpoint Records to ML = N

NO_MINILOG_CHECKPOINTS

NO_REUSE
When the NO_REUSE control card is present, it prevents a VSAM data set from being reused on WRITE_TO_VSAM or WRITE_TO_BOTH jobs (instead, a VSAM data set is newly allocated with new extent structure). When the NO_REUSE control card is not present, an existing VSAM data set will be reused (thus preserving the data set’s size and extent structure).

The NO_REUSE control card can be specified in the online using the Reuse VSAM Data Set field on the Utility Profile Options (GGC$UOPT) panel:

Reuse VSAM Data Set = Y
Omits the NO_REUSE control card.

Reuse VSAM Data Set = N
NO_REUSE

NO_SYSCOPY_ROW
Include this optional item if you want Db2 Change Accumulation Tool to skip updating the SYSCOPY catalog table with a new row for the new image copy (or copies). Specify this optional item outside the delimiters of the GROUP keyword.

The NO_MINILOG_CHECKPOINTS control card can be specified in the online using the Add SYSCOPY Rows On Complete field on the Utility Profile Options (GGC$UOPT) panel:

Add SYSCOPY Rows On Complete = Y
Omits the NO_SYSCOPY_ROW control card.

Add SYSCOPY Rows On Complete = N
NO_SYSCOPY_ROW

NO_SYSLGRNX
Include this optional item if you want Db2 Change Accumulation Tool to skip reading SYSIBM.SYSLGRNX and only read the Db2 logs. Specify this optional item outside the delimiters of the GROUP keyword.

Note: Using NO_SYSLGRNX can cause a significant increase in processing time due to the number of log data sets and log records read.

OBID 'obid,obid'
The object IDs of the source and target OBIDs.

Note: When specifying the DBID, PSID, and OBID pairs, all pairs should be space separated and the source ID is listed first with the target ID listed second. Each pair should be defined on a new line. Define multiple OBID pairs as necessary.

OBIDXLAT
Use the OBIDXLAT keyword to specify object translation information (DBID / PSID / OBID) and enable recovery via WRITE_TO_VSAM of tables within an image copy to a different VSAM / table space than the one indicated in the generated logs. The variable dataset_name is the fully qualified Db2 data set name of the target table space (the data set name that is going to contain the translated image copy), valid values are up to 44 bytes. When specifying the dbid, psid, and obid pairs, you must specify the pairs of source/target IDs in that order (DBID first, PSID second, followed by all applicable OBID pairs). All pairs should be space separated.
and the source ID is listed first with the target ID listed second. Each pair should be defined on a new line. Define multiple OBID pairs as necessary.

**PARALLEL 'x,y'**

Indicates the number of parallel log read and log apply tasks that can run where:

- **x** (Default 0) The number of parallel log read tasks. Valid values are integers, 0-16. If a value of 0 is specified for x, this means that a maximum of 1 task per data sharing group member will run at the same time. If a non-zero value is specified for x, then that number is the maximum number of parallel tasks that can run at the same time for log read. If there are more logs to read than the number of parallel tasks specified for x, a task to read the remaining logs will be launched as soon as a running task finishes and until all necessary logs have been read.

- **y** (Default 1) The number of parallel log apply tasks. Valid values are integers, 1-10. When specifying a value for the number of parallel log apply tasks, you should consider the following:

  **If a single GROUP(...) set is present in the control cards:**
  
  If a single GROUP(...) set is present in the control cards, the value of log apply parallel tasks is used to break up the job into multiple GROUP(...) sets and start a log apply task for each set. Valid values for y for a single GROUP(...) set:
  
  - 1 A single group starts a single log apply task.
  - 2-10 If there is a single GROUP(...) coded, and if y is greater than 1, the code will internally break down the SPACE(...) sets into a maximum of y GROUP(...) sets and will start one log apply task per GROUP(...). For example:
    - If you specify a value of 10 for y and there are only 5 SPACE(...) sets, Db2 Change Accumulation Tool divides the syntax into 5 GROUP(...) sets and 5 log apply tasks.
    - If you specify a value of 5 for y, Db2 Change Accumulation Tool divides the number of spaces between the groups evenly and then, if there are leftovers after attempting to divide them evenly among the allotted number of GROUP(...) sets, those leftovers go in the last GROUP(...) set. One log apply task is then generated for each GROUP(...) set.

  **If multiple GROUP(...) sets are present in the control cards:**

  Remember: If you use the online to generate a Db2 Change Accumulation Tool job, only one GROUP(...) set is generated. You can however manually code multiple GROUP(...) sets in your Db2 Change Accumulation Tool syntax. If you have manually coded multiple GROUP(...) sets in your JCL, the following considerations regarding the valid values of y apply.

  If multiple GROUP(...) sets are present in the Db2 Change Accumulation Tool syntax, the only valid value y is 1 (it is
not valid to specify a value of log apply tasks greater than 1 if there are multiple GROUP(...) sets. Valid values for y for a multiple GROUP(...) set:

1 If y the number of groups and the associated spaces assigned to them will be used to start multiple log apply tasks instead.

The PARALLEL control card can be specified in the online using the Number of PARALLEL log read and Number of PARALLEL log apply fields on the Utility Profile log read and log apply Options (GGC$UOPT) panel:

Number of PARALLEL log read = x
    PARALLEL 'x,y'

Number of PARALLEL log apply = y
    PARALLEL 'x,y'

PARTITION #
This optional item indicates the partition number, if the table space is partitioned. Replace # with the appropriate partition number for your site. To include all partitions, type 0. If the table space is not partitioned, do not include this control card (or comment it out). The PARTITION item is optional for each SPACE keyword specified in your job.

PSID ‘psid,psid’
The pageset IDs of the source and target PSIDs.

Note: When specifying the DBID, PSID, and OBID pairs, all pairs should be space separated and the source ID is listed first with the target ID listed second. Each pair should be defined on a new line. Define multiple OBID pairs as necessary.

REBUILD_INDEXES
Causes Db2 Change Accumulation Tool to gather index information for any one table space and perform the index rebuilds.

Note:
• Page data is converted into index keys which are then are sorted before the rebuild process starts. Thus, no key can be written before the last row has been read.
• REBUILD_INDEXES can be specified at the SPACE(...) level, the GROUP(...) level, or the global level. In all cases, if this parameter is present, Db2 Change Accumulation Tool will gather index information for any one table space and perform the index rebuilds.
• At the SPACE level, REBUILD_INDEXES can be specified for both a table space and an indexspace. In the case of a table space, all table space indexes will be rebuilt. In the case of an indexspace, only the specified indexes will be rebuilt, overriding REBUILD_INDEXES for TS with the following restrictions:
  – The end point is not specified at the space level
  – The corresponding TS should be in the current job
  – If the corresponding TS uses OBIDXLAT then the index spaces must also use OBIDXLAT
• At the GROUP level, the REBUILD_INDEXES flag will expand on all nested spaces except index spaces for which end points have been specified at the SPACE level. An error will be generated if there is an
index space that inherits an end point specifications and REBUILD_INDEXES flag is set both from group level.

• At the CHANGE_ACCUM level, the REBUILD_INDEXES flag will expand on all nested spaces except index spaces for which end points have been specified.

• If the index is being processed in Change Accum mode, then there cannot be an unrecoverable portion of the log from the end point going backwards in time to a valid start point. A switch in COPY states is an unrecoverable point, since it either means that logging was off and is now on, or logging was on and is now off.

RECOVERY_SITE | LOCAL_SITE
This optional item works in conjunction with the IMAGE_COPY_PREFERENCE control card and tells Db2 Change Accumulation Tool which SYSCOPY rows to consider when finding a starting point for processing. LOCAL_SITE uses the LP/LB rows, RECOVERY_SITE uses the RP/RB rows. The SYSCOPY rows output by Db2 Change Accumulation Tool are determined by the presence of DD cards in the JCL.

• LOCAL_SITE is the default setting and it refers to the LP/LB rows to find a starting point for processing. Equal priority is given to LP and LB rows, so if Db2 retrieves the LB row first, that’s what will be used.

• RECOVERY_SITE uses the RP/RB rows to find a starting point for processing. Equal priority is given to RP and RB rows, so if Db2 retrieves the RB row first, that’s what will be used.

Notes:
1. This item is not required for the Db2 Change Accumulation Tool to run. If LOCAL_SITE, RECOVERY_SITE, and IMAGE_COPY_PREFERENCE are missing from the control cards, Db2 Change Accumulation Tool detects the operating mode Db2 is running under and automatically inserts either LOCAL_SITE, RECOVERY_SITE based on what is in ZPARM.

2. This option sets the mode in which Db2 Change Accumulation Tool operates. If LOCAL_SITE is coded, only local site type image copies are scanned for use. If RECOVERY_SITE is coded, only recovery site type image copies are scanned for use. If IMAGE_COPY_PREFERENCE is coded, the user-specified scanning preference is used.

REPAIR_RECOVER_PENDING
Include this optional item if you want to remove the recover pending flag on table spaces that are written with a WRITE_TO_VSAM operation.

The REPAIR_RECOVER_PENDING control card can be specified in the online using the Repair Recover Pending Proc field on the Utility Profile Options (GCG$UOPT) panel:

Repair Recover Pending Proc = Y
Omits the REPAIR_RECOVER_PENDING control card.

Repair Recover Pending Proc = N
REPAIR_RECOVER_PENDING

RESTORE_BEFORE 'byte string'
This optional item allows you to recover an object and avoid using a specific image copy as a recovery base. This causes the scan in SYSCOPY to start at the specified point and proceed backwards instead of always
starting at the end (and proceeding backwards). The RESTORE BEFORE control card operates like RESTORE BEFORE in the recover utility.

**Note:** In most cases, you do not need to use RESTORE BEFORE in conjunction with the END_RBA control card. The RESTORE BEFORE control card is more commonly used with TO QUIESCE. You might use RESTORE BEFORE with END_RBA in a scenario where you have a known bad image copy and you don’t want Db2 Change Accumulation Tool to consider it when finding a base Full Copy to start its processing.

The RESTORE BEFORE control card can be specified in the online using the **Spec Hex End Pt/Quiesce #** field on the Utility Profile Options (GGC$UOPT) panel:

**Restore Before Point = byte_string**

- RESTORE BEFORE 'byte_string'

**Restore Before Point = blank**

- Omits the RESTORE BEFORE control card.

**SPACE**

Use the SPACE keyword for each table space for which you want to execute the Db2 Change Accumulation Tool process. You can specify multiple SPACE keywords in a single job. An open parenthesis must follow this keyword. Each SPACE keyword must contain a DATA_BASE, SPACE_NAME parameter within its delimiters. The SPACE keyword can also contain an optional PARTITION item within its delimiters.

**Note:** If you use the same end point for all spaces in a Db2 Change Accumulation Tool run, then it is recommended that all space (..) control cards are under one group(..). Do not specify one group for every space.

**SPACE_NAME tablespace**

This keyword indicates the table space name. Replace tablespace with the appropriate table space name for your site, up to 8 characters. The SPACE_NAME keyword is required for each SPACE keyword specified in your job.

**STARTING_IC 'dsn'**

Include this optional item if you want to start with a full image copy other than the one listed in SYSCOPY as the last full image copy. Replace dsn with the data set name of the image copy with which you want to start. The data set name must be enclosed in single quotation marks. Specify this optional item inside the delimiters of each SPACE keyword.

**SWITCH_VCAT vcatname**

When present, this control card changes the WRITE_TO_VSAM target data set name by replacing its first qualifier with the specified vcatname value. This control card can be specified on the SPACE, GROUP and JOB levels. Note the following considerations:

- When SWITCH_VCAT is specified on more than one level, the value specified at the SPACE level takes priority over that specified on either the GROUP or JOB levels; the value specified on the GROUP level takes priority over that specified on the JOB level.
- The SWITCH_VCAT keyword can only be specified for WRITE_TO_VSAM (not WRITE_TO_COPIES or WRITE_TO_BOTH).
- Specifying SWITCH_VCAT and OBIDXLAT together at the SPACE level is not valid. If OBIDXLAT is specified at the SPACE level and
SWITCH_VCAT is specified at either the GROUP or JOB level, the SPACE level OBIDXLAT will be performed.

The SWITCH_VCAT control card can be specified in the online using the Switch Vcat and VCAT value fields on the Utility Profile Options (GGC$UOPT) panel. For more information about these fields, see “Utility profiles - fields and columns” on page 140.

TOLOGPOINT

TOLOGPOINT byte string directs Db2 Change Accumulation Tool to read the log and to incorporated data into the image copy up to the specified logpoint. Replace byte string with the desired log point value.

Note: TOLOGPOINT is valid for both non-data sharing and data sharing runs. If TOLOGPOINT is used, the value will be accepted as an RBA in non data sharing and an LRSN in data sharing.

The TOLOGPOINT control card can be specified in the online using the End Point field on the Utility Profile Options (GGC$UOPT) panel:

End Point = S
  TOLOGPOINT

TO_CURRENT | TOQUIESCE or TOQUIESCE(#n) | TOLOGPOINT byte string | TO_CONSISTENT_IC | END_RBA byte string | END_LRSN byte string

This required choice enables you to specify the point up to which you want to make the image copy. TO_CURRENT, TOQUIESCE, END_RBA, END_LRSN can be specified at either the SPACE() or GROUP() level but not both. The specification of these required choices at both the SPACE() and GROUP() levels is not valid. When using the online interface, Db2 Change Accumulation Tool generates the TO_CURRENT, TOQUIESCE, END_RBA, END_LRSN control cards once at the GROUP() level if the SPACE() level parms are all the same.

Note: Db2 Change Accumulation Tool enables you to specify an end point (RBA/LRSN) from SYSCOPY (START_RBA) that is of ICTYPE “Y”, “S”, or “W”.

The TO_CURRENT, TOQUIESCE, TOLOGPOINT, TO_CONSISTENT_IC control cards can be specified in the online using the End Point field on the Utility Profile Options (GGC$UOPT) panel:

End Point = C
  TO_CURRENT

End Point = Q
  TOQUIESCE

End Point = S
  TOLOGPOINT

End Point = T
  TO_CONSISTENT_IC

TO_CONSISTENT_IC

When the TO_CONSISTENT_IC keyword is used, Db2 Change Accumulation Tool expects the last image copy to be a share level change copy. Db2 Change Accumulation Tool considers the last share level change copy as the end point, derives a starting point from a further search in BSDS to obtain a checkpoint before the start point of the last share level
change copy and attempts to create a consistent share level reference image copy. The user is not expected to provide a specific end point when using this keyword.

Note:

- The TO_CONSISTENT_IC keyword can be used at the space, group or global level.
- The FORCE_COPIES keyword is not required when the TO_CONSISTENT_IC keyword is used and would be ignored.

The TO_CONSISTENT_IC control card can be specified in the online using the End Point field on the Utility Profile Options (GGC$UOPT) panel:

**End Point = T**

TO_CONSISTENT_IC

**TO_CURRENT**

Reads the log and incorporates data into the image copy up to the current point in time, which is the end of the log file.

The TO_CURRENT control card can be specified in the online using the End Point field on the Utility Profile Options (GGC$UOPT) panel:

**End Point = C**

TO_CURRENT

**TO_IC_INLINE**

Indicates that a sort must be performed for the specified input image copy. You must specify manually that the image copy needs to be sorted when the input image copy name is specified directly instead of retrieved from a SYSCOPY row, as is required when the image copy is created by REORG inline or is an image copy of a compressed object.

**TO_QUIESCE**

Reads the log and incorporates data into the image copy up to a quiesce point. TO_QUIESCE can be specified with either the (#n) option alone or the (#n) and UNIFIED options together:

**(#n)** (Optional) When you specify TO_QUIESCE with a value in the format TO_QUIESCE(#n), for example TO_QUIESCE(#2), Db2 Change Accumulation Tool retrieves the second-most recent quiesce point log point from SYSCOPY. TO_QUIESCE(#3) retrieves the third-most recent quiesce point log point from SYSCOPY, and so forth. Db2 Change Accumulation Tool considers the RBA validated and not subject to adjustment to assure the log point is a starting point of a log record.

**Notes:**

1. You must enclose the #n value in parentheses. TO_QUIESCE#n is not valid syntax.
2. If TO_QUIESCE is specified without a value or with a value of n=1, it will retrieve the most recent quiesce point log point.
3. TO_QUIESCE and TO_QUIESCE(#1) are functionally identical.

The TO_QUIESCE control card can be specified in the online using the End Point field on the Utility Profile Options (GGC$UOPT) panel:

**End Point = Q**

TO_QUIESCE
You can specify the TOQUIESCE(#n) control card in the online using the End Point and Spec Hex End Pt/Quiesce # fields on the Utility Profile Options (GGC$UOPT) panel:

End Point = Q
  TOQUIESCE

End Point = Q, Spec Hex End Pt/Quiesce # = 2
  TOQUIESCE(#2)

UNIFIED
Validates that there is a common QUIESCE RBA for all spaces in the group. This parameter can be used with the TO_CURRENT, TOQUIESCE or TOQUIESCE(#n), END_RBA, END_LRSN, or TOLOGPOINT control cards. For example:

END_RBA X'002CA75AA18A' UNIFIED
END_LRSN X'002CA75AA18A' UNIFIED
TOLOGPOINT byte_string UNIFIED
TO_CURRENT UNIFIED
TOQUIESCE UNIFIED
TOQUIESCE(#2) UNIFIED

Note: If UNIFIED is specified with a TOQUIESCE control card for which no (#n) value is specified, a value of (#1) is used.

The UNIFIED control card can be specified in the online using the Unified End Points In Group field on the Utility Profile Options (GGC$UOPT) panel:

Unified End Points In Group = Y
  UNIFIED

Unified End Points In Group = N
  Omits the UNIFIED and UNIFIED_WARNING control cards.

Unified End Points In Group = W
  UNIFIED_WARNING

UNIFIED_WARNING
Validates that there is a common QUIESCE RBA for specified end point. If this keyword is present, Db2 Change Accumulation Tool will make image copies even if some objects in the GROUP or SPACE cannot be copied to the specified end point. Processing will end with a RC=4 and messages GGC2810I and GGC2811I will be output.

The UNIFIED_WARNING control card can be specified in the online using the Unified End Points In Group field on the Utility Profile Options (GGC$UOPT) panel:

Unified End Points In Group = Y
  UNIFIED

Unified End Points In Group = N
  Omits the UNIFIED and UNIFIED_WARNING control cards.

Unified End Points In Group = W
  UNIFIED_WARNING

USER INDICATOR GGC | xxx
(Required) Specifies a group of control file records for operation. The startup CLIST supplies the value for the USER INDICATOR control card.

Notes:
1. If a USER_INDICATOR value is supplied in the batch job, a control file that has been loaded with setup information via the Db2 Change Accumulation Tool V1R4 (and later versions) code will be necessary.

2. The USER_INDICATOR control card cannot be specified in the online, the startup CLIST supplies the value for the UISER_INDICATOR control card.

3. The USER_INDICATOR is required; if not specified an error will be issued.

USE_ABOVE_THE_BAR 'primary,secondary,count'
Allows the use of above-the-bar memory and specifies the number of primary, secondary and maximum segments to be allocated:

- **primary** - The number of segments (megabytes) of above-the-bar storage obtained initially.
- **secondary** - The number of segments (megabytes) of above-the-bar storage obtained when the primary segments are used up.
- **count** - The limit placed on the total number of segments that can be obtained. This stops runaway getmains by aborting if the limit is reached.

If the USE_ABOVE_THE_BAR control card is not specified, it will be used by default with the following parameters: primary=1, secondary=1, count=5.

The USE_ABOVE_THE_BAR control card can be specified with the **Allow Above the Bar Memory** field on the Utility Profile Options (GGC$UOPT) panel:

- **Allow Above the Bar Memory = Y**
  
  USE_ABOVE_THE_BAR 'primary,secondary,count'

  Note: If you specify Y in the **Allow Above the Bar Memory** field, then you can also specify values in the **Primary Segments Alloc**, **Secondary Segments Alloc**, and **Maximum Segments Alloc** fields to specify the number of segments of above-the-bar storage (primary, secondary and maximum).

- **Allow Above the Bar Memory = N**
  
  Omits the USE_ABOVE_THE_BAR control card. Even if USE_ABOVE_THE_BAR is omitted by using N, it will be used by default as described above.

WRITE_TO_COPIES | WRITE_TO_VSAM | WRITE_TO_BOTH
Specifies the destination to which changes are to be written (to image copies, to VSAM files, or to both):

- **WRITE_TO_COPIES**

  Writes changes to image copies.

- **WRITE_TO_VSAM**

  Writes changes to the underlying VSAM file.

- **WRITE_TO_BOTH**

  Writes changes to both image copies and underlying VSAM files.

Restriction:

1. The WRITE_TO_VSAM and WRITE_TO_BOTH control cards cannot be used with the MINI_LOG_DSN control card.

2. The Db2 space must be in a STOPPED state before WRITE_TO_VSAM or WRITE_TO_BOTH can occur.
3. The NO_SYSCOPY_ROW control card is ignored when using WRITE_TO_VSAM.

The WRITE_TO_COPIES, WRITE_TO_VSAM, and WRITE_TO_BOTH control cards can be specified in the online using the Write Mode field on the Utility Profile Options (GGC$UOPT) panel:

Write Mode = I
    WRITE_TO_COPIES

Write Mode = V
    WRITE_TO_VSAM

Write Mode = B
    WRITE_TO_BOTH

XLAT_COPY
When present, this control card specifies the COPY allocation parameters for the OUTPUT DSN OBIDXLAT.

XLAT_CATALOG
This optional keyword is set within the context of the XLAT_COPY control card and sets DISP=CATLG. If the XLAT_CATALOG keyword is not present, then DISP=KEEP.

XLAT_DATA_CLASS
This optional keyword is set within the context of the XLAT_COPY control card and specifies the SMS data class to be used.

XLAT_DEVICE
This optional keyword is set within the context of the XLAT_COPY control card and specifies the 8-character device name.

XLAT_EXP_DATE
This optional keyword is set within the context of the XLAT_COPY control card and specifies the expiration date for the XLAT_COPY data sets.

XLAT_MGMT_CLASS
This optional keyword is set within the context of the XLAT_COPY control card and specifies the SMS management class to be used.

XLAT_RETPD
This optional keyword is set within the context of the XLAT_COPY control card and specifies the retention period for the XLAT_COPY data sets.

XLAT_SPACE
This optional keyword is set within the context of the XLAT_COPY control card and when specified, generates the space allocations of the data set. For example, a typical generated XLAT_SPACE control card would be: XLAT_SPACE ' (TRK,(50,5),RLSE) '.

XLAT_STOR_CLASS
This optional keyword is set within the context of the XLAT_COPY control card and specifies the SMS storage class to be used.

XLAT_VOLUME_COUNT 'n'
This optional keyword is set within the context of the XLAT_COPY control card and specifies the maximum number of volumes that can be used for the XLAT_COPY data sets. Valid values are in the range of 1 to 255 or the control card is left out, it defaults to the system default.
**XLAT_DSN 'dsn'**
Either a VSAM LDS name or pre-existing sequential file to hold the output of the operation on the object.

The XLAT_DSN 'dsn' control card can be specified in the online using the **Output DSN** field on the Update IX Object OBIDXLAT Display (GGC$OXLI) and Update TS Object OBIDXLAT Display (GGC$OXLT) panels.

**XLAT_INCREMENTAL**
Indicates whether to include incremental image copies when performing the translation. If you specify this option, the incremental image copies you specify will be used instead of incrementals from SYSCOPY.

**XLAT_IN_DSN 'dsn'**
The fully qualified Db2 data set name of a full image copy to be used instead of reading SYSCOPY. If you specify an XLAT_IN_DSN, you must also specify an XLAT_IN_LOGPOINT for the full image copy.

**Note:** If the Input DSN field is not specified, Db2 Change Accumulation Tool will instead read SYSCOPY.

The XLAT_IN_DSN 'dsn' control card can be specified in the online using the **Input DSN** field on the Update IX Object OBIDXLAT Display (GGC$OXLI) and Update TS Object OBIDXLAT Display (GGC$OXLT) panels.

**XLAT_IN_DSN_INLINE**
Include this keyword if the starting image copy for an OBIDXLAT is an inline image copy.

**XLAT_IN_LOGPOINT 'logpoint'**
The 6-byte hexadecimal value of the RBA/LRSN of the override full image copy data set (required if you specify XLAT_IN_DSN).

The XLAT_IN_LOGPOINT 'logpoint' control card can be specified in the online using the **RBA/LRSN** field on the Update IX Object OBIDXLAT Display (GGC$OXLI) and Update TS Object OBIDXLAT Display (GGC$OXLT) panels.

**XLAT_IN_VOLUME 'nnnnnn'**
Include this keyword to specify the 6-digit volume ID for uncatalogued image copies.

**XLAT_TARGET_DBNAME 'dbname'**
An alternate DBNAME to be used for the rebuild index process. If left blank, the object name from the object profile is used instead. This allows for name overriding. If the objects in the build contain no indexes or the objects don't have OBIDXLAT processing turned on, the secondary job will not be produced.

The XLAT_TARGET_DBNAME control card can be specified in the online using the **Alt Output DBNAME.TSNAME** and **Alt Output DBNAME.ISNAME** fields on the Update IX Object OBIDXLAT Display (GGC$OXLI) and Update TS Object OBIDXLAT Display (GGC$OXLT) panels.

**XLAT_TARGET_SSID**
Indicates the Db2 that is connected to when performing the target system rebuild index processing after the OBIDXLAT processing has completed. This alternate Db2 will be used as the second job generated on an
OBIDXLA build. If left blank on the utility profile, the same Db2 SSID that is used on the OBIDXLA process will be used on the rebuild index process.

Note: When the XLAT_TARGET SSID control card is omitted, the current SSID is used.

The XLAT_TARGET SSID control card can be specified in the online using the OBIDXLAT Alternate DB2 SSID field on the Utility Profile Options (GGC$UOPT) panel:

**OBIDXLAT Alternate DB2 SSID = Y**
Omits the XLAT_TARGET SSID control card.

**OBIDXLAT Alternate DB2 SSID = N**
XLAT_TARGET SSID

**XLAT_TARGET_TSNAME**
An alternate TSNAME to be used for the rebuild index process. If left blank, the object name from the object profile is used instead. This allows for name overriding. If the objects in the build contain no indexes or the objects don’t have OBIDXLAT processing turned on, the secondary job will not be produced.

The XLAT_TARGET_TSNAME control card can be specified in the online using the Alt Output DBNAME.TSNAME and Alt Output DBNAME.ISNAME fields on the Update IX Object OBIDXLAT Display (GGC$OXL1) and Update TS Object OBIDXLAT Display (GGC$OXLT) panels.

**XLAT_VSAM**
(Defaut) Specifies the allocation parameters for the VSAM OUTPUT DSN for the OBIDXLAT.

**XLAT_DATA_CLASS**
This optional keyword is set within the context of the XLAT_VSAM control card and specifies the SMS data class to be used.

**XLAT_MGMT_CLASS**
This optional keyword is set within the context of the XLAT_VSAM control card and specifies the SMS management class to be used.

**XLAT_NOERASE | XLAT_ERASE**
These keywords are set within the context of the XLAT_VSAM control card:

**XLAT_NOERASE**
This optional keyword specifies that the cluster's components are not to be erased when its entry in the catalog is deleted.

**XLAT_ERASE**
This optional keyword specifies that the cluster's components are to be erased when its entry in the catalog is deleted.

**XLAT_NOREUSE | XLAT_REUSE**
These keywords are set within the context of the XLAT_VSAM control card:
**XLAT_NOREUSE**
This optional keyword specifies that a non re-usable cluster will be defined.

**XLAT_REUSE**
This optional keyword specifies that a re-usable cluster will be defined.

**XLAT_STOR_CLASS**
This optional keyword is set within the context of the XLAT_VSAM control card and specifies the SMS storage class to be used.

**XLAT_VCAT**
This optional keyword is set within the context of the XLAT_VSAM control card and sets the catalog alias, DISP=CATLG. If the XLAT_VCAT keyword is not present, then DISP=KEEP.

**XLAT_VOLUMES**
This optional keyword is set within the context of the XLAT_VSAM control card and specifies the volumes to be used.

**XLAT_VSPACE**
This optional keyword is set within the context of the XLAT_VSAM control card and when specified, generates the space allocations of the data set. For example, a typical generated XLAT_VSPACE control card would be: XLAT_VSPACE '(TRK,(50,5),RLSE)'.

**XML_JOBS_DSN**
The PDS to which Db2 Change Accumulation Tool will output to during batch operation. For each object associated with a Db2 to which Db2 Change Accumulation Tool cannot connect, the template data set will be used to create a sequence number update job. That sequence number update job can then be run on the Db2 to which Db2 Change Accumulation Tool cannot connect.

The XML_JOBS_DSN control card can be specified in the online using the **Other LPAR Jobs Data Set** field on the Utility Profile Options (GGC$UOPT) panel:

```
Other LPAR Jobs Data Set = dsn
XML_JOBS_DSN 'dsn'
```

**XML_JOBS_MEMBER_PFX**
Db2 Change Accumulation Tool allows for any number of Db2 subsystems in any one object profile. For each group of objects associated with a Db2 subsystem ID, the sequence number job that is created into the LPAR job data set will use this prefix along with the Db2 subsystem ID as the output PDS member name.

The XML_JOBS_MEMBER_PFX control card can be specified in the online using the **Member Prefix** field on the Utility Profile Options (GGC$UOPT) panel:

```
Member Prefix = prefix
XML_JOBS_MEMBER_PFX 'prefix'
```

**XML_TEMPLATE_DSN**
The XML alternate SSID template DSN created via main menu option 5. Any number of these template data sets can exist and a valid one must be entered into the utility profile to be propagated into the control cards so
that the batch process can read the correct template data set when creating sequence number update jobs for Db2 subsystems to which Db2 Change Accumulation Tool cannot connect.

The XML TEMPLATE DSN control card can be specified in the online using the XML Alternate SSID Template DSN field on the Utility Profile Options (GCGSUOPT) panel:

XML Alternate SSID Template DSN = dsn

XML TEMPLATE MEMBER

An optional member for use if multiple templates are to be generated in a PDS. If this field is left blank, the template data set is presumed to be a non-PDS.

The XML TEMPLATE MEMBER control card can be specified in the online using the Member field on the Utility Profile Options (GCGSUOPT) panel:

Member = dsn

The following syntax diagram illustrates how to construct valid DB2 Change Accumulation syntax.

The syntax of the DB2 Change Accumulation Tool control cards is:

DB2 Change Accumulation Tool syntax diagram

The following syntax diagram illustrates how to construct valid DB2 Change Accumulation syntax.
BUFFERS_IN_31_BIT
USE ABOVE THE BAR—'primary,secondary,count'

FORCE COPIES
CONTINUE_ON_ERROR
WRITE_TO_COPIES
WRITE_TO_VSAM
WRITE_TO_BOTH

RESTORE BEFORE—byte string
LOCAL_SITE
RECOVERY_SITE

IMAGE_COPY_PREFERENCE—LPLBRPRBF
IMAGE_COPY_PREFERENCE—syscopyrows

LOG_COPY_PREFERENCE—R1R2A1A2
LOG_COPY_PREFERENCE—log_tokens
USER_INDICATOR GGC
USER_INDICATOR—xxx

NO_MINILOG_CHECKPOINTS
MINILOG_SHARELEVEL REFERENCE
MINILOG_SHARELEVEL CHANGE

ML Attributes
REBUILD_INDEXES

Space Attributes:
SPACE—ML Attributes
OBID Translate
OBID Translate Indexes

SWITCH_VCAT—vcatname
Dynamic Allocation Attributes:

- **IC_DSN** — 'dsn'
  - **IC_CATALOG**
  - **IC_DEVICE** — device
  - **IC_SPACE** — space

- **IC_MGMT_CLASS** — smstorclass
- **IC_VOLUME_COUNT** — n

- **IC_STOR_CLASS** — smstorclass
- **IC_DATA_CLASS** — dataclass

- **IC_EXP_DATE** — nnnnnnnnnnnnn
- **IC_RETPD** — nnn

ML Attributes:

- **MINI_LOG_DSN_1** — 'dsn1'
- **MINI_LOG_DSN_2** — 'dsn2'

OBID Translate:

- **OBIDXLAT**
  - XML target
  - XLAT_DSN — 'dsn'
  - XLAT_IN_DSN — 'dsn'

- **XLAT_IN_DSN_INLINE**
- **XLAT_IN_VOLUME** — 'volume'
- **XLAT_IN_LOGPOINT** — 'logpoint'
OBID Translate Indexes:

XML dsn info:

XML target:

OBID - No Dataset:

XLAT_COPY_SPECIFICATION:

COPY_SPECIFICATION:
XLAT_STOR_CLASS—storclass
XLAT_DEVICE—device

XLAT_VOLUME_COUNT—number (17)
XLAT_EXP_DATE—date

XLAT_RETPD—daycount

XLAT_VSAM_SPECIFICATION:

XLAT_VSAM—VSAM_SPECIFICATION

VSAM_SPECIFICATION:

XLAT_VCAT—catalogname (18)
XLAT_VSPACE—vspace

XLAT_VOLUMES—volumelist (19) (20)
XLAT_DATA_CLASS—dataclass

XLAT_MGMT_CLASS—mgmtclass
XLAT_STOR_CLASS—storclass

XLAT_NOERASE
XLAT_REUSE

Notes:

1. All occurrences of the variable 'byte string' in this syntax diagram must be in the format to an X’xxxxxxxxxxxx’, that is, an X followed by a single-quote, followed by 12 or 20 hex characters, followed by a single-quote.

2. Refer to DB2(r) Change Accumulation Tool syntax for details about the valid values accepted for the IMAGE_COPY_PREFERENCE control card.

3. Refer to DB2(r) Change Accumulation Tool syntax for details about the valid values accepted for the LOG_COPY_PREFERENCE control card.

4. Refer to DB2(r) Change Accumulation Tool syntax for details about the valid placement of the REBUILD_INDEXES control card in Change Accum syntax.

5. Note that only GGC Batch supports CREATINDEXNAME. The GGC ISPF always builds the JCL with DATABASE.INDEXSPACE. The GGC ISPF does not build CREATINDEXNAME.

6. Refer to DB2(r) Change Accumulation Tool syntax for details about the valid placement of the REBUILD_INDEXES control card in Change Accum syntax.

7. Coding IC_xx control cards at the SPACE level and JCL DD cards is mutually
exclusive with coding mini log data sets at the SPACE or GROUP level. GGC
only produces mini logs or image copies for a job step.

Refer to DB2(r) Change Accumulation Tool syntax for details about the valid
placement of the REBUILD_INDEXES control card in Change Accum syntax.

If you specify the MINI_LOG_DSN_* control cards at the GROUP level, you
cannot also specify it at the SPACE level or vice versa. The specification of
the MINI_LOG_DSN_* control cards at GROUP and SPACE levels is mutually
exclusive.

The previous control card used to specify the mini log data set name,
MINI_LOG_DSN, is functionally identical to MINI_LOG_DSN_1. The online
interface will now only generate MINI_LOG_DSN_1 going forward, even if
only one mini log data set is specified.

Mini log data sets coded either at the SPACE or GROUP level are also
mutually exclusive with coding IC_xx control cards at the SPACE level and
JCL DD cards. GGC only produces mini logs or image copies for a job step.

When specifying the DBID, PSID, and OBID pairs, all pairs should be space
separated and the source ID is listed first with the target ID listed second.
Each pair should be defined on a new line. Define multiple OBID pairs as
necessary.

This is the PSID of the Index Space.

When performing OBID Translate on indexes, the order in which the OBIDs
are specified is significant. OBIDs for indexes should be specified before
OBIDs for tables.

When specifying the DBID, PSID, and OBID pairs, all pairs should be space
separated and the source ID is listed first with the target ID listed second.
Each pair should be defined on a new line. Define multiple OBID pairs as
necessary.

The space specification, spacespec, supports all formats as described in JCL
reference, however the [directory]/[index] specification is not supported. For
example: XLAT_SPACE ' (CYL,(10,10),RLSE)' or XLAT_SPACE ' (CYL,10)'

The format for date can either be YYYY/DDD or YYDDD.

The VSPACE specification, vspecs, supports all formats as described in
IDCAM documentation, however the RECORD specification is not supported.
Examples: XLAT_VSPACE 'MB(10)' or XLAT_VSPACE 'MB(10 10)'

Examples of volumelist: XLAT_VOLUMES 'F2P108 F2P108 F2P108',
XLAT_VOLUMES 'F2P108' and XLAT_VOLUMES F2P108

XLAT_VOLUMES can be used to specify between one and 50 volumes

Considerations for creating and reading mini log data sets

When Db2 Change Accumulation Tool creates mini logs, one or two data sets will
be created for output (depending on whether MINI_LOG_DSN_1 or both
MINI_LOG_DSN_1 and MINI_LOG_DSN_2 are specified in the JCL) and any
failure to write to those data sets at any point will cause the code to abort.

When reading the mini logs, as in when creating an image copy or going
WRITE_TO_VSAM, the code will try to read MINI_LOG_DSN_1 first. If it can't be
opened for some reason, it will try reading MINI_LOG_DSN_2. If that can't be
opened, then the code will abort.
Chapter 10. Troubleshooting

Use these topics to diagnose and correct problems that you experience with Db2 Change Accumulation Tool.

Topics:
- “Recovery procedures”
- “Messages” on page 223
- “Gathering diagnostic information” on page 468
- “Abend in module GGC$DCVT when trying to start Db2 Change Accumulation Tool” on page 469

Recovery procedures

Recovery procedures have been developed for many common Db2 Change Accumulation Tool problems.

Topics:
- “Recovering from disk failure”
- “Recovering from subsystem termination” on page 222

Recovering from disk failure

You can recover from a disk hardware failure that results in the loss of an entire unit.

Symptoms

No I/O activity occurs for the affected disk address. Databases and tables that reside on the affected unit are unavailable.

Resolving the problem

Operator response:

1. Ensure that no incomplete I/O requests exist for the failing device. One way to do this is to force the volume offline by issuing the following z/OS command, where xxx is the unit address:
   
   ```
   VARY xxx,OFFLINE,FORCE
   ```

   To check disk status, issue the following command:
   
   ```
   DU,DASD,ONLINE
   ```

   The following console message is displayed after you force a volume offline:
   
   ```
   UNIT TYPE STATUS VOLSER VOLSTATE
   4B1 3390 O-BOX XTRA02 PRIV/RSDNT
   ```

   The disk unit is now available for service.

   If you previously set the I/O timing interval for the device class, the I/O timing facility terminates all requests that are incomplete at the end of the specified time interval, and you can proceed to the next step without varying the volume offline. You can set the I/O timing interval either through the IECIOSxx z/OS parameter library member or by issuing the following z/OS command:
   
   ```
   SETIOS MIH,DEV=devnum,IOTIMING=mm:ss.
   ```
2. Issue (or request that an authorized operator issue) the following Db2
command to stop all databases and table spaces that reside on the affected
volume:

```
-STOP DATABASE(database-name) SPACENAM(space-name)
```

If the disk unit must be disconnected for repair, stop all databases and table
spaces on all volumes in the disk unit.

3. Select a spare disk pack, and use ICKDSF to initialize from scratch a disk unit
with a different unit address (yyy) and the same volume serial number
(VOLSER).

```
// Job
//ICKDSF EXEC PGM=ICKDSF
//SYSPRINT DD SYSOUT**
//SYSIN DD *
  REVAL UNITADDRESS(yyy) VERIFY(volser)
```

If you initialize a 3380 or 3390 volume, use REVAL with the VERIFY
parameter to ensure that you initialize the intended volume, or to revalidate
the home address of the volume and record 0. Alternatively, use ISMF to
initialize the disk unit.

4. Issue the following z/OS console command, where yyy is the new unit
address:

```
VARY yyy,ONLINE
```

5. To check disk status, issue the following command:

```
D U,DASD,ONLINE
```

The following console message is displayed:

```
UNIT TYPE STATUS VOLSER VOLSTATE
704 3390 0 XTRA02 PRIV/RSDNT
```

6. Issue the following Db2 command to start all the appropriate databases and
table spaces that were previously stopped:

```
-START DATABASE(database-name) SPACENAM(space-name)
```

7. Delete all table spaces (VSAM linear data sets) from the ICF catalog by issuing
the following access method services command for each one of them, where y
is either I or J:

```
DELETE catnam.DSNDBC.dbname.tsname.y0001.A00x.CLUSTER NOSCRATCH
```

8. For user-managed table spaces, define the VSAM cluster and data components
for the new volume by issuing the access method services DEFINE CLUSTER
command with the same data set name as in the previous step, in the
following format: catnam.DSNDBC.dbname.tsname.y0001.A00x. The y is I or J,
and the x is C (for VSAM clusters) or D (for VSAM data components).

9. For a user-defined table space, define the new data set before an attempt to
recover it. You can recover table spaces that are defined in storage groups
without prior definition.

10. Recover the table spaces by using the Db2 RECOVER utility.

**Recovering from subsystem termination**

You can recover Db2 Change Accumulation Tool after Db2 Change Accumulation
Tool or an operator-issued cancel causes the subsystem to terminate.

**Symptoms**

When an Db2 Change Accumulation Tool subsystem terminates, the specific failure
is identified in one or more messages. The following messages might be issued at
the z/OS console:
DSNV086E - DB2 ABNORMAL TERMINATION REASON=XXXXXXXX
DSN31041 - DSN3EC00 -TERMINATION COMPLETE
DSN31001 - DSN3EC00 - SUBSYSTEM ssnm READY FOR -START COMMAND

The following message might be issued to the IMS master terminal:
DSNM002I   IMS/TM xxxx DISCONNECTED FROM SUBSYSTEM    
            yyyy RC=rc

The following message might be issued to the CICS® transient data error destination, which is defined in the RDO:
DSNC2025I - THE ATTACHMENT FACILITY IS INACTIVE

Environment
• IMS and CICS continue.
• In-process IMS and CICS applications receive SQLCODE -923 (SQLSTATE '57015') when accessing DB2.
  In most cases, if an IMS or CICS application program is running when a -923 SQLCODE is returned, an abend occurs. This is because the application program generally terminates when it receives a -923 SQLCODE. To terminate, some synchronization processing occurs (such as a commit). If DB2 is not operational when synchronization processing is attempted by an application program, the application program abends. In-process applications can abend with an abend code X'04F'.
• IMS applications that begin to run after subsystem termination begins are handled according to the error options.
  – For option R, SQL return code -923 is sent to the application, and IMS pseudo abends.
  – For option Q, the message is enqueued again, and the transaction abends.
  – For option A, the message is discarded, and the transaction abends.
• CICS applications that begin to run after subsystem termination begins are handled as follows:
  – If the CICS attachment facility has not terminated, the application receives a -923 SQLCODE.
  – If the CICS attachment facility has terminated, the application abends (code AEY9).

Resolving the problem
Operator response:
1. Restart Db2 Change Accumulation Tool by issuing the START command.
2. For IMS environments, reestablish the IMS connection by issuing the IMS command /START SUBSYS DB2.
3. For CICS environments, reestablish the CICS connection by issuing the CICS attachment facility command DSNC STRT.

Messages

Use the information in these messages to help you diagnose and solve Db2 Change Accumulation Tool problems.

Message format

Db2 Change Accumulation Tool messages adhere to the following format:

ABCnnnx
Where:

**ABC** Indicates that the message was issued by Db2 Change Accumulation Tool.

**nnn** Indicates the message identification number

**x** Indicates the severity of the message:

- **E** Error message. Some errors might be user-correctable. Read the User Response to determine the appropriate course of action.
- **I** Information only. No user action is required.
- **W** Warning message. Results might not be as expected.
- **S** Severe error message. A severe internal or environmental error occurred. Usually, users need to contact Software Support for assistance in resolving these errors.

Each message also includes the following information:

**Explanation**

The explanation section explains what the message text means, why it occurred, and what its variables represent.

**User response**

The user response section describes whether a response is necessary, what the appropriate response is, and how the response will affect the system or program.

In the messages output, a timestamp is often displayed after the message identifier and before the message text to indicate when the message was issued. The timestamp is composed of a Julian date followed by a time in the format HH:MM:SS:tt (where **HH** is hours, **MM** is minutes, **SS** is seconds, and **tt** is hundredths of a second). This timestamp does not occur in messages that are issued from the ISPF interface or batch interface (GGC or GGCB messages) or in any messages that are issued as WTO messages. (The WTO messages include a system timestamp instead.)

**Considerations**

**Note:**

1. If a U1000 abend occurs while using Db2 Change Accumulation Tool, FTP the dump and the job log to IBM. Contact IBM Software Support. A U1000 abend can indicate multiple issues.

2. In certain error conditions Db2 Change Accumulation Tool forces an abnormal termination with user abend code U0012. This condition forces the deletion of the Db2 Change Accumulation Tool Image Copy data set when the disposition is defined as disp=(new,catlg,delete).

3. Messages prefixed with GGCM, FECA and GGC are general product and ISPF panel messages while messages prefixed with GGCB are generated by the build process.

**GGC messages**

Use the information in these messages to help you diagnose and solve Db2 Change Accumulation Tool problems.
G GC001 IBM* Rocket** Licensed Materials - Property of IBM 5697-P45 (c) Copyright Rocket Software, Inc. 2001 - 2016 All Rights Reserved. **Trademark of International Business Machines *Trademark of Rocket Software, Inc.

Explanation: This informational message details the copyrights for Db2 Change Accumulation Tool.

User response: No action is required.

G GC002E The subsystem ID field must have a valid DB2 subsystem identifier present.

Explanation: The Db2 subsystem ID that was specified is not a valid.

User response: Correct the Db2 subsystem ID.

G GC003E The valid commands are "0" to go to the User Settings, "1" to go to the object profiles display, "2" to go to the utility profiles display, "3" to go to the job profiles display, "4" to go to the mini log clean up options, "5" to go to the XML template build display, and "6" to exit.

Explanation: The option specified is not valid for the panel.

User response: Select one of the valid options described in the message text.

G GC004E The startup CLIST did not define the control file name for Change Accum to use. Processing cannot continue.

Explanation: The CLIST you are trying to invoke does not define a control file name for Db2 Change Accumulation Tool to use. A control file name is required to be in the CLIST in order for Db2 Change Accumulation Tool to proceed with processing.

User response: Edit the startup CLIST to include a valid control file name for use with Db2 Change Accumulation Tool.

G GC005E The startup CLIST defined a control file for Change Accum to use, but it could not be allocated.

Explanation: Db2 Change Accumulation Tool was not able to allocate the control file defined in the startup CLIST.

User response: Verify and correct the control file specified in the startup CLIST.

G GC006I Subsystem ID entered is not yet completely defined.

Explanation: The Db2 subsystem ID is not valid or has not been completely defined via the User Settings panels.

User response: Enter a valid Db2 subsystem and verify that the User Settings panels (which can be accessed from the main menu option 0) contain the correct information for your installation of Db2 Change Accumulation Tool.

G GC007E An error has occurred obtaining ZPARM code Hex.

Explanation: An internal error has occurred.

User response: Contact IBM Software Support.

G GC008E Command is not supported on this screen. Please enter a valid command or clear the primary command line.

Explanation: You entered an invalid command for the screen.

User response: Clear the primary command line and re-enter a valid command.

G GC009E You are not authorized to enter any line commands for this profile. The creator of the profile is restricting all activity.

Explanation: You do not have the authority to enter a line command for the profile because activity has been restricted by the profile’s creator.

User response: No action is required.

G GC010E You are not authorized to update or delete this profile. Enter a "V" if you would like to view this profile.

Explanation: You do not have the authority to update or delete the profile.

User response: View the profile or, if you need to update or delete the profile, verify your current authorization with your system administrator.

G GC011E Invalid line command entered.

Explanation: The line command you entered was invalid.

User response: Enter a valid line command.
GGC012E • GGC025E

GGC012E This profile's data has been corrupted in the GGC tables. It must be re-created.
Explanation: The profile you have selected has been corrupted and cannot be used.
User response: Re-create the profile and resubmit the job.

GGC013I Profile profile_creator.profile_name has been successfully added to your jobs profile.
Explanation: The indicated profile that has been added to your jobs profile.
User response: No action is required.

GGC014W No profiles were found that match your selection criteria. Press enter to create a new profile or change the selection criteria.
Explanation: No profiles matched the selection criteria you specified.
User response: Either create a new profile to match your criteria or change your selection criteria.

GGC015E The profile creator is a required field. Please enter a valid creator.
Explanation: You did not enter a profile creator.
User response: Enter a valid profile creator.

GGC016E The Profile Name is a required field. Please enter a unique name.
Explanation: You did not enter a profile name.
User response: Enter a unique profile name.

GGC017E Invalid value. Enter a "U" to allow other users to update your profile, a "V" to allow other users to just view your profile, or "N" to disallow other users from viewing or updating your profile.
Explanation: You entered an invalid value. Valid values include U, V, and N.
User response: Enter U to allow other users to update your profile, V to allow other users to view your profile, or N to disallow other users from viewing or updating your profile.

GGC018E Profile profile_creator.profile_name already exists in DB2 SSID ssid. Please enter a unique Profile Name and press Enter.
Explanation: The profile you specified is not unique.
User response: Enter a unique profile name and press enter.

GGC019I Profile profile_creator.profile_name saved.
Explanation: The profile was saved successfully.
User response: No action is required.

GGC020E Invalid value. The only valid values are "Y" and "N".
Explanation: The value you entered for the field was not valid.
User response: Enter either Y or N.

GGC021E The options cannot be altered if they are not first selected.
Explanation: You did not select the options you want to alter.
User response: Select the options before attempting to alter them.

GGC022E Invalid value. Enter a "U" to allow other users to update your profile, a "V" to allow other users to just view your profile, or "N" to disallow other users from viewing or updating your profile.
Explanation: You entered an invalid value. Valid values include U, V, and N.
User response: Enter U to allow other users to update your profile, V to allow other users to view your profile, or N to disallow other users from viewing or updating your profile.

GGC023E Unknown command.
Explanation: The command you entered is not known.
User response: Enter a valid command.

GGC024E This profile's Mini Log DSN options have been set to "Y" but the Mini Log information has not yet been entered.
Explanation: In your profile, you have specified the use of a mini log data set but have not yet entered the needed mini log information.
User response: Enter the appropriate mini log information in the profile.

GGC025E This profile's Image Copy DSN options have been set to "Y" but the Image Copy information has not yet been entered.
Explanation: In your profile, you have specified Y for the use of an image copy data set but have not yet entered the needed image copy information.
User response: Enter the appropriate image copy information in the profile.
The specified qualifier code is not a supported value.

**Explanation:** The qualifier code that you entered is not supported.

**User response:** Select a valid qualifier code from those listed on the bottom half of the product panel.

The symbolic data set name generation field is full.

**Explanation:** You tried to add information to the data set name generation field when it was full.

**User response:** Edit the data set name generation field to include the appropriate information as allowed by the field length.

Truncation has occurred in building the data set qualifier.

**Explanation:** When Db2 Change Accumulation Tool attempted to build the data set qualifier you specified the data set name was truncated.

**User response:** Re-specify the data set name generation qualifier string before proceeding.

An error may occur on this data set at job build time due to the fact that the GDG qualifier might extend beyond the 44 byte maximum data set name size.

**Explanation:** The GDG qualifier extends beyond the 44 byte maximum data set name size.

**User response:** Edit the GDG qualifier data set name to be 44 bytes or less.

An error was encountered while generating the data set name. The data set name was not completely formatted.

**Explanation:** The data set name you specified was not created due to an error.

**User response:** Verify that the data set name generation qualifier string you specified is valid.

This field cannot be left blank.

**Explanation:** You did not specify a value in a required field.

**User response:** You must enter a value in the field.

The entered device type is not recognized by OS/390 as a valid device type.

**Explanation:** The device type you specified is not recognized.

When using disk type devices, expiration date and retention period are not valid.

**Explanation:** The expiration date and retention period are not valid because you are using a disk type device.

**User response:** Specify a different device type or do not specify an expiration date nor retention period.

If a tape device is selected, either retention period or expiration date must be specified.

**Explanation:** You specified a tape device but did not specify a retention period or expiration date.

**User response:** Specify a retention period or expiration date.

The entered value must be numeric.

**Explanation:** The value you entered was not numeric.

**User response:** Enter a numeric value.

The year in the expiration date must be in a range of 1999 and higher.

**Explanation:** The expiration date is not within the valid range of 1999 and higher.

**User response:** Correct the year in the expiration date to be of the specified format.

The day in the expiration date must be in the range of 1 to 366.

**Explanation:** The day in the expiration date you specified is not within the valid range.

**User response:** Specify a day within the range of 1 to 366.

A utility profile can only select one of Mini Log processing or Image Copy processing or OBID Report Job Generation.

**Explanation:** You selected more than one processing option. Only one can be selected.

**User response:** Select only one of the available processing options (mini log processing, image copy processing, or OBID Report Job Generation).
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
<th>Explanation</th>
<th>User Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC039E</td>
<td>The only valid values for End Point are To &quot;C&quot;urrent, To &quot;Q&quot;uiesce, &quot;U&quot;nified, &quot;S&quot;pecified or &quot;T&quot;o Consistent IC.</td>
<td>The value you specified for End Point is not valid.</td>
<td>Specify C for To Current, Q for To Quiesce, S for Specified or T for To Consistent IC.</td>
</tr>
<tr>
<td>GGC039E</td>
<td>The only valid values for End Point are To &quot;C&quot;urrent, To &quot;Q&quot;uiesce, &quot;U&quot;nified, &quot;S&quot;pecified or &quot;T&quot;o Consistent IC.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC040E</td>
<td>If the End Point is set to &quot;S&quot;pecified, you must enter a valid 12 or 20 digit hex value for the ending RBA/LRSN.</td>
<td>You set the End Point to S (specified) so you must also enter a value for the end RBA/LRSN.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC040E</td>
<td>If the End Point is set to &quot;S&quot;pecified, you must enter a valid 12 or 20 digit hex value for the ending RBA/LRSN.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC041E</td>
<td>The specified end point contains an invalid hexadecimal character.</td>
<td>The end point you specified contains a hexadecimal character that is not valid.</td>
<td>Verify that you specified the correct end point.</td>
</tr>
<tr>
<td>GGC042E</td>
<td>If the value in the End Point field is set to &quot;C&quot;urrent then a Specified Hex End Point/Quiesce # is not allowed.</td>
<td>You must specify S or Q in the End Point field if you intend to specify a hex end point or quiesce number.</td>
<td>Either remove the value you specified in the Specified Hex End Point/Quiesce Number field or adjust the value in the End Point field to be S or Q.</td>
</tr>
<tr>
<td>GGC043E</td>
<td>The only valid values for the scan copy type are &quot;L&quot;ocal site, &quot;R&quot;ecovery site, &quot;Z&quot;parm to fetch from the startup zparm startup parameter in DB2, and &quot;U&quot;ser to specify the IC type directly.</td>
<td>You did not specify a valid value for the scan copy type.</td>
<td>Specify a valid scan copy type value (L, R, Z, or U).</td>
</tr>
<tr>
<td>GGC043E</td>
<td>The only valid values for the scan copy type are &quot;L&quot;ocal site, &quot;R&quot;ecovery site, &quot;Z&quot;parm to fetch from the startup zparm startup parameter in DB2, and &quot;U&quot;ser to specify the IC type directly.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC044E</td>
<td>The only valid values for the Process Indexes are &quot;Y&quot;es, &quot;N&quot;o and &quot;P&quot;arallel rebuild.</td>
<td>You specified an invalid value.</td>
<td>Specify Y, N or P.</td>
</tr>
<tr>
<td>GGC045E</td>
<td>If mini log mode is used, SYSCOPY rows are never involved. This option must be left at &quot;N&quot;o.</td>
<td>You cannot specify Y in the SYSCOPY rows field if you also intend to use mini log mode.</td>
<td>Specify N in the SYSCOPY rows field if you intend to use mini log mode.</td>
</tr>
<tr>
<td>GGC046E</td>
<td>At least one image copy type must be selected.</td>
<td>You did not select an image copy type.</td>
<td>Select at least one image copy type.</td>
</tr>
<tr>
<td>GGC047E</td>
<td>When this type of processing is selected on this utility profile, required fields on subsequent panels must also be entered. Enter a &quot;Y&quot; and press Enter to proceed.</td>
<td>You must specify required fields on subsequent panels.</td>
<td>Enter a Y and press Enter to proceed.</td>
</tr>
<tr>
<td>GGC048E</td>
<td>Either the Date or Age field must be specified.</td>
<td>You must specify either a date or an age (these fields are mutually exclusive).</td>
<td>Specify either a date or an age.</td>
</tr>
<tr>
<td>GGC049E</td>
<td>The date and age fields cannot be specified together.</td>
<td>You must specify either a date or an age (these fields are mutually exclusive).</td>
<td>Specify only a date or an age value, not both.</td>
</tr>
<tr>
<td>GGC050E</td>
<td>Invalid date. Enter a valid date in the form of YYYYMMDD.</td>
<td>The date you entered was not in the format YYYYMMDD.</td>
<td>Correct the date so it is of the valid form YYYYMMDD.</td>
</tr>
<tr>
<td>GGC051E</td>
<td>The age field has a valid range of 1-32767.</td>
<td>The age you specified is not valid.</td>
<td>Specify a valid age in the range of 1-32767.</td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC054E</td>
<td>There was an error allocating the DB2 Control File. Db2 Change Accumulation Tool cannot run without allocating a valid Control File. Please verify that the control file in your execution CLIST is correct.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>Db2 Change Accumulation Tool cannot allocate the Db2 Control File specified in the product's execution CLIST.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Verify that the correct Db2 Control File is specified in your Db2 Change Accumulation Tool CLIST.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC055E</td>
<td>The only valid values for the Write Mode are &quot;I&quot;mage copy for image copies only, &quot;V&quot;sam to write to the space file(s), and &quot;B&quot;oth to make an image copy while writing to the space file.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>The value you specified for the Write Mode is invalid.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Specify a valid value for Write Mode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC056E</td>
<td>When producing mini logs, the write mode must remain in the default state of &quot;I&quot; for image copies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>If you are producing mini logs, the write mode must remain in the default state of I for image copies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Specify a write mode of I for image copies.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC057E</td>
<td>When not producing image copies due to the setting of the write mode, the Image Copy Data Set Name Generation field must be &quot;N&quot;.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>If you are not producing image copies, they you must specify that the generation of an image copy data set name is not necessary.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Specify N in the Image Copy Data Set Name Generation field.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC058E</td>
<td>When the generation options are both set to no, the write mode must be set to &quot;V&quot; for write to VSAM.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>If you specify no for all generation options, then you must set the write mode to V so changes are written to the underlying VSAM.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Specify V in the Write Mode field.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC059E</td>
<td>One or more of the load libraries allocated for Db2 Change Accumulation Tool is not APF Authorized. APF Authorization is required for all load libs allocated in the Db2 Change Accumulation Tool startup clist.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>One or more of the load libraries allocated in your Db2 Change Accumulation Tool startup clist is not APF authorized.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Db2 Change Accumulation Tool requires that the target load libraries SGGCLOAD, SGCCMLOAD, and SGGCLOAD be APF authorized. Include the highlevel.SGGCLOAD, highlevel.SGCCMLOAD, and highlevel.SGGCLOAD libraries as part of your system APF-authorized list.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC060E</td>
<td>DB2 Subsystem ssid could not be found on this MVS Operating System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>The Db2 subsystem indicated in the message could not be found.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Verify that the Db2 subsystem you specified in the DB2 Subsystem ID field on the Db2 Change Accumulation Tool main menu is a valid Db2 subsystem and that it is currently running.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGC061E</td>
<td>A critical error has occurred attempting to resolve the subsystem RC=returncode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explanation:</td>
<td>Db2 Change Accumulation Tool requires that the target load libraries highlevel.SGGCLOAD and highlevel.SFECLOAD be APF authorized. This messages indicates that insufficient APF authorization is available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Ensure the following APF authorization requirements have been met:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Include the highlevel.SGGCLOAD and highlevel.SFECLOAD libraries as part of your system APF-authorized list. Contact your systems administrator if you encounter difficulties starting Db2 Change Accumulation Tool.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Add the program FECSTSOC to the AUTHPGM and AUTHTSF sections of member IKITSO00 in SYS1.PARMLIB. Refer to <a href="https://www.ibm.com/support/knowledgecenter/en/SSLTBW">https://www.ibm.com/support/knowledgecenter/en/SSLTBW to access the z/OS MVS Initialization and Tuning Reference for your version of z/OS.</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Changes you make to SYS1.PARMLIB require an IPL command for the PARMLIB updates to take effect. Perform an IPL for the PARMLIB updates to take effect.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GGC062E  DB2 Subsystem ssid is currently not active. Starting DB2 is required to continue.

Explanation: A data sharing member (not the group attach name) has been specified in the DB2 Subsystem ID field on the Db2 Change Accumulation Tool main menu and the data sharing member is running on a different MVS.

User response: Specify the group attach name in the DB2 Subsystem ID field or specify a Db2 subsystem ID that is running on the current MVS.

GGC063E  The retention period and expiration date fields cannot be entered at the same time.

Explanation: You entered a value in both the Expiration Date and Retention Period fields. This combination is not allowed.

User response: Clear the value from either the Expiration Date or the Retention Period field.

GGC065W  Line commands were cleared for a cursor sensitive screen command.

Explanation: You issued a cursor sensitive screen command while line commands were specified so Db2 Change Accumulation Tool has cleared the line commands.

User response: No action is required.

GGC066E  In order to use mini log #2, mini log #1 must also be specified.

Explanation: If you specify a secondary mini log data set, you must also specify a primary mini log data set.

Note: If you specify a primary mini log data set, you are not required to specify a secondary mini log data set.

User response: To resolve this issue, do one of the following:

- remove the specification of mini log #2,
- specify both mini log #1 and mini log #2, or
- specify only mini log #1

GGC068E  If the SYSCOPY selection mode is set to "U"ser, the Image Copy Preference field must be entered.

Explanation: The SYSCOPY Scan Operating Mode has been set to "U" (user). If you desire to enter a specific order in which the image copy data sets are scanned for selection, their order must be entered in the SYSCOPY Selection Preference field.

User response: Either modify the SYSCOPY Scan Operating Mode to be something other than "U" (user) or define a SYSCOPY Selection Preference.

GGC069E  The only valid codes are LP, LB, RP, and RB each specified a maximum of one time.

Explanation: The only valid 2-character code is "LP" for Local Primary, "LB" for Local Backup, "RP" for Recovery Primary, and "RB" for recovery backup.

User response: These can be entered, with 1-4 codes in total, in a packed 8 character maximum field. "LPLBRPRB" would select the locals before the recovery site copies. "RPRBLPLB" would select the recovery site copies first. "RB" would cause an error if a recovery site backup type image copy could not be found. Each two character code can only be specified once.

GGC070E  The only valid values are R1 for archive log 1, R2 for archive log 2, A1 for active log 1, and A2 for active log 2.

Explanation: You entered an invalid value.

User response: Enter four codes, each two characters long (R1, R2, A1, A2) consecutively to form a preference command. The Db2 logs will then be selected in this order when GGC attempts to read the Db2 logs. Each code must be specified, and each can only be specified once in the whole string.

GGC071E  The specified quiesce number must be 1–3 digits in a range of 1-999.

Explanation: The quiesce number specified is not 1–3 digits within the valid range of 1-999.

User response: Specify a 1–3 digit quiesce number in the range of 1-999.

GGC072E  The specified quiesce number must be numeric.

Explanation: The quiesce number specified is not a numeric value.

User response: Specify a 1–3 digit numeric value for the quiesce number, in the range of 1-999.

GGC073E  If the Restore Before Point is specified, you must enter a valid 12 or 20 digit hex value for the RBA/LRSN.

Explanation: You have specified an invalid value in the Restore Before Point field.

User response: Specify a valid 12 or 20 digit hexadecimal value in the Restore Before Point field.
The only valid values are "G"roup level and "S"pace level.

**Explanation:** You have specified an invalid value in the **ML Control Card Level** field.

**User response:** Specify a valid value. Valid values are G (places mini log control cards at the group level) and S (places mini log control cards at the space level). When the mini log data set control card level is set to S (space), Db2 Change Accumulation Tool will allocate mini log data sets one at a time for each object during the course of the mini log run. When set to G (group) Db2 Change Accumulation Tool will allocate mini log data sets once for the entire group.

Invalid values. The only valid values are "Y", "N" and "W".

**Explanation:** You have specified an invalid value in the **Unified End Points In Group** field.

**User response:** Specify a valid value. Valid values are:

- **Y** - Includes the UNIFIED keyword in the syntax. This means Db2 Change Accumulation Tool will not make image copies unless every object in the GROUP or SPACE can be copied to the specified end point. This inhibits anything being written to SYSCOPY and takes the abend disposition of the DDs.
- **N** - Does not include the UNIFIED keyword in the syntax. This means Db2 Change Accumulation Tool will make image copies even if some objects in the GROUP or SPACE cannot be copied to the specified end point.
- **W** - Includes the UNIFIED_WARNING keyword in the syntax. This means Db2 Change Accumulation Tool makes image copies even if some objects in the GROUP or SPACE cannot be copied to the specified end point. Processing will end with a RC=4 and messages GGC2810I and GGC2811I will be output.

The specified number must be 1-4 digits in a range of 1-9999.

**Explanation:** The specified number is not valid.

**User response:** Specify a value 1-4 digits in a range of 1-9999.

If Volume Count is specified, it must have a value of 1-255 or you can leave the field blank.

**Explanation:** If you specify a value for Volume Count, it must be a numeric value in the range of 1 to 255 or you can leave this field blank.

**User response:** Specify a valid value for Volume Count or leave the field blank. If blank, the volume count defaults to the system default.

If PARALLEL is specified, it must have a value between 0 - 16

**Explanation:** The value specified is not valid. PARALLEL must be between 0-16.

**User response:** Specify a value between 0-16. If you specify a value of 0, then a maximum of 1 task per data sharing group member will run at the same time.

If Check After Quiesce is set to "Y", the End Point must be set to "Q"uiesce.

**Explanation:** If the Check After Quiesce field is set to Y, the End Point must be set to Q.

**User response:** Specify a valid combination of values for Check After Quiesce and End Point.

If Check After Quiesce is set to "Y", the Bypass SYSIBM.SYSLGRNX Proc must be set to "N"o.

**Explanation:** If the Check After Quiesce field is set to Y, the Bypass SYSIBM.SYSLGRNX Proc must be set to N.

**User response:** Specify a valid combination of values for Check After Quiesce and Bypass SYSIBM.SYSLGRNX Proc.
If Check After Quiesce is set to "Y", the Unified End Points In Group must be set to "N"o.

Explanation: If the Check After Quiesce field is set to Y, the Unified End Points In Group must be set to N.

User response: Specify a valid combination of values for Check After Quiesce and Unified End Points In Group.

If the value in the End Point field is set "T"o Consistent IC then a Specified Hex End Point/Quiesce# is not allowed.

Explanation: An end point or quiesce number was specified but is not allowed.

User response: Remove the end point or quiesce number.

If Parallel log apply is specified, it must have a value between 1 - 10

Explanation: The value specified for Number of PARALLEL log apply is not valid. Valid values are between 1-10. If multiple GROUP(...) sets are present in the your Db2 Change Accumulation Tool syntax, the only valid value for the Number of PARALLEL log apply field is 1 (it is invalid to specify a value of log apply tasks greater than 1 if there are multiple GROUP(...) sets).

User response: Specify valid value in the Number of PARALLEL log apply field.

Valid values are "N"o, "W"rite, and "O"peration.

Explanation: The value you entered for the Check Data Operating Mode field is not valid.

User response: Specify a valid value in the Check Data Operating Mode field. Valid values are N (do not check data page integrity), O (check data page integrity both before and after each log apply operation and before writing out a data page), and W (check data page integrity before writing a page). The default value for this field is W.

A DB2 subsystem ID has to be entered for processing.

Explanation: You did not specify a Db2 subsystem ID.

User response: Specify the appropriate Db2 subsystem ID.

The default GDG base data set name could not be located.

Explanation: Db2 Change Accumulation Tool could not locate the default GDG base data set name.

User response: Verify that you specified a GDG base data set name.

The specified data set could not be opened for I/O.

Explanation: Db2 Change Accumulation Tool was unable to open the specified data set for I/O.

User response: Verify that you specified the correct
data set for processing and ensure it is not currently in use.

GGC905E An unexpected return code from VSAM was encountered while doing a read of the control file. RC=returncode
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC906I The control file record for DB2 subsystem ssid has been successfully updated.
Explanation: The specified control file record has been updated successfully.
User response: No action is required.

GGC907E An unexpected return code from VSAM was encountered while doing an update operation of the control file.
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC908I The control file record for DB2 subsystem ssid has been successfully added.
Explanation: The specified control file record has been added successfully.
User response: No action is required.

GGC909E Invalid value. Valid values are 1, 2, and 3.
Explanation: The value you entered was invalid.
User response: Enter the appropriate option (1, 2, or 3).

GGC910E An unexpected return code from VSAM was encountered while doing an add operation to the control file.
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC911E The only valid dataset types at this time are "B"asic and "L"arge
Explanation: You specified an invalid data set type.
User response: Specify a valid value of either B (basic) or L (large) for the data set type.

GGC912E The "L"arge option is only supported on z/OS V1.7 or higher.
Explanation: You specified a data set type of L (large) but your z/OS level is not V1.7 or higher.
User response: Specify a data set type of B (basic).

GGC913E Invalid data set/member/alias. The data set, member name, or alias entered does not meet the MVS data set naming standards.
Explanation: The data set, member name, or alias entered does not meet the MVS data set naming standards.
User response: Correct the data set member name or alias.

GGC914E The data set and corresponding member name, if specified, have to be specified together.
Explanation: You omitted the data set or corresponding member name.
User response: Specify the data set and the member name.

GGC915E The Other LPAR Jobs Data Set and XML Alternate SSID Template if specified, have to be specified together.
Explanation: You specified one but not both of the fields Other LPAR Jobs Data Set and XML Alternate SSID Template. These fields have to be specified together.
User response: Specify values for both of the Other LPAR Jobs Data Set and XML Alternate SSID Template fields.

GGC916E When the Process Indexes options is set to "P"arallel Rebuild the Write Mode must be set to "V" for write to VSAM or "B" for write to both
Explanation: Process Indexes was set to P but the Rebuild the Write Mode field was not set to V or B.
User response: Specify a valid value for the Rebuild the Write Mode field.

GGC917E DB2 Rebuild Index ALL step and Process Indexes options are mutually exclusive.
Explanation: You specified both the DB2 Rebuild Index ALL step and the Process Indexes options. These fields are mutually exclusive.
User response: Specify either DB2 Rebuild Index
ALL step or Process Indexes.

GGC938E  The Plan Name is a required field. Please enter a value.
Explanation:  The Plan Name is a required field.
User response:  Specify a value in the Plan Name field.

GGC939E  The only valid values are "T" for tracks and "C" for cylinders.
Explanation:  The value you entered is not valid.
User response:  Enter T for tracks or C for cylinders.

GGC940E  The specified data set could not be found in the MVS catalog.
Explanation:  The data set could not be found.
User response:  Verify that the data set you specified is correct.

GGC941E  The quantity fields must be numeric and within the specified range.
Explanation:  You entered non-numeric values in the quantity fields.
User response:  Enter numeric values in the quantity fields.

GGC943E  When a TAPE device is used, Data Set Type, Tracks/Cylinders and Primary/Secondary space can not be specified.
Explanation:  You cannot specify a value for the number of primary tracks if the device type is TAPE.
User response:  Remove the value specified for the number of primary tracks or change the device type to DISK.

GGC944E  The specified device could not be found in MVS.
Explanation:  The device you specified could not be found in MVS.
User response:  Verify that you have specified the correct device.

GGC945E  The Number of Buffers field must be numeric.
Explanation:  You entered a non-numeric value in the Number of Buffers field.
User response:  Enter a numeric value in the Number of Buffers field.

GGC946E  The Number of Buffers field must be greater than 0.
Explanation:  You entered a value in the Number Of Buffers field that is less than or equal to 0.
User response:  Enter a value greater than 0 in the Number Of Buffers field.

GGC947E  The Channel Programs field must be numeric.
Explanation:  You entered a non-numeric value in the Channel Programs field.
User response:  Enter a numeric value in the Channel Programs field.

GGC948E  The Channel Programs field must be greater than 0.
Explanation:  You entered a value in the Channel Programs field that is less than or equal to 0.
User response:  Enter a value greater than 0 in the Channel Programs field.

GGC949E  Tape devices cannot be used for mini logs.
Explanation:  You specified a tape device but a tape device is not allowed for mini log data sets.
User response:  Specify a disk device.

GGC1001A  The SYSOUT data set could not be opened for output.
Explanation:  The SYSOUT data set defined in your Db2 Change Accumulation Tool JCL could not be opened for output.
User response:  Verify that the SYSOUT data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

GGC1002E  The SYSOUT DD must have a 133 byte LRECL.
Explanation:  The SYSOUT DD specified in your Db2 Change Accumulation Tool JCL does not have a 133-byte LRECL.
User response:  Ensure your SYSOUT DD has a 133-byte LRECL and resubmit the Db2 Change Accumulation Tool job.
**GGC1010E**  The following space is not set to LOG for a required log range.

**Explanation:**  The space listed in the messages is not set to LOG for a required log range.

**User response:**  No action is required.

**GGC1012E**  No valid full image copy in the SYSCOPY history was found for space(s): spaces

**Explanation:**  Db2 Change Accumulation Tool was unable to find a valid full image copy in the SYSCOPY history for the table space(s) indicated in the message. Db2 Change Accumulation Tool requires a full image copy registered in SYSCOPY.

**User response:**  Ensure the image copy is registered in SYSCOPY and that it is valid.

**GGC1013E**  A table update ICTYPE was found in SYSCOPY that did not log for space(s): spaces

**Explanation:**  There were multiple spaces being processed for which it was impossible for Db2 Change Accumulation Tool to process due to the fact that some operation (such as LOAD REPLACE LOG(NO), REORG LOG(NO), etc.) occurred at some point between the selected starting point and the specified end point.

**User response:**  No action is required.

**GGC1014I**  Database: database  Space: space  Partition: partition

**Explanation:**  This message is issued in conjunction with other Db2 Change Accumulation Tool messages to indicate the database, space, and partition for which other messages apply.

**User response:**  No action is required.

**GGC1015E**  Could not determine disk/tape status of unit name.

**Explanation:**  The device type for work data sets entered in the control file is invalid.

**User response:**  Enter the correct device type.

**GGC1016E**  The device type of the unit name from the control file could not be determined.

**Explanation:**  The device type for work data sets entered in the control file is invalid.

**User response:**  Enter the correct device type.

**GGC1017E**  The REPORT utility returned an unrecoverable error.

**Explanation:**  An internal error occurred.

**User response:**  Contact IBM Software Support.

**GGC1018E**  The FULL image copy DD CA(LP/LB/RP/RB) {1} is missing from the JCL. Each CAxnnnn DD correlates to each SPACE(...) control card group.

**Explanation:**  The full image copy data set is not included in your Db2 Change Accumulation Tool JCL.

**User response:**  Verify that the JCL is formatted correctly and contains the necessary information for your Db2 Change Accumulation Tool job.

**GGC1019E**  The FULL image copy DD CA [1] refers to a DSNAME already in SYSCOPY.

**Explanation:**  You specified a full image copy data set name that already exists in SYSCOPY.

**User response:**  Specify a different image copy data set name.

**GGC1020I**  Each CAxnnnn DD correlates to each SPACE(...) control card group.

**Explanation:**  Each CAxxxx DD statement must be associated with a corresponding SPACE(...) control card group.

**User response:**  Verify that the JCL is formatted correctly and that each CAxxxx DD statement is associated with a SPACE(...) control card group.

**GGC1021E**  The TO_QUIESCE control card was specified, but no quiesce point was found.

**Explanation:**  The TO_QUIESCE control card directs Db2 Change Accumulation Tool to read the log and incorporate data into the image copy up to the most recent quiesce point but no quiesce point was found.

**User response:**  No action is required.

**GGC1022E**  The stop point precedes the start point for space: Database: database  Table space: table_space  Partition: partition  Start point X'end'  End point X'start'.

**Explanation:**  The Db2 Change Accumulation Tool job will not run if the stop point precedes the start point for the listed database, table space, partition.

**User response:**  Correct the JCL and resubmit the job.
The version of DB2 subsystem ssid is ver.

Explanation: Displays the SSID and the version of the Db2 subsystem.

User response: No action is required.

The version of DB2 group attach member_name is version.

Explanation: Displays the version of Db2 group attach that the Db2 group attach member subsystem is running.

User response: No action is required.

Control card stream process complete. Selected space count space count.

Explanation: This is an informational message stating that the control card scanning process has finished. The number of objects found in the control card set is indicated by the space count variable.

User response: No action is required.

The table space table_space contains n partitions.

Explanation: Indicates the number of partitions that the table space (displayed in the message) contains.

User response: No action is required.

Db2 Change Accumulation Tool will process dataset for tablespace tablespace.

Explanation: Indicates the data set name that Db2 Change Accumulation Tool will process.

User response: No action is required.

The image copy is of all parts.

Explanation: Indicates that the image copy is of all partitions of the table space.

User response: No action is required.

The image copy contains one partition (partition).

Explanation: Indicates the one partition that the image copy contains.

User response: No action is required.

A concurrent image copy was found in the SYSCOPY history. It cannot be used.

Explanation: The DFDSS concurrent image copy that was found cannot be read by Db2 Change Accumulation Tool.

User response: Select an alternative mechanism by which to recover the space.

Only partition partition within the image copy will be updated with log data and written to an individual partition copy.

Explanation: Db2 Change Accumulation Tool will only update the partition within the image copy with log data and will write to an individual partition image copy.

User response: No action is required.

All partitions will be updated with log data.

Explanation: Db2 Change Accumulation Tool will update all partitions with log data.

User response: No action is required.

The specified dataset name does not exist.

Explanation: The data set specified for the TO_IC parameter does not exist.

User response: Specify the correct data set name for the TO_IC parameter.

Db2 Change Accumulation Tool will process the log only for table space table_space PART part.

Explanation: Db2 Change Accumulation Tool will process only the log for the indicated table space and partition.

User response: No action is required.

An image copy was found, but its RBA precedes the logging start point.

Explanation: This message indicates that although an image copy was found, it could not be used since its RBA precedes the logging start point.

User response: No action is required.

Db2 Change Accumulation Tool processing ends.

Explanation: Indicates that Db2 Change Accumulation Tool processing has completed.

User response: No action is required.
GGC1038E  An incremental image copy was marked as cataloged in SYSCOPY, but was not found in the MVS catalog.

**Explanation:** This message indicates that although an incremental image copy was marked as cataloged in SYSCOPY, it was not found in the MVS catalog.

**User response:** No action is required.

---

GGC1039E  At least two end points within a single GROUP() are not the same.

**Explanation:** At least two end points within a GROUP are not the same.

**User response:** Verify that the end points you defined are correct.

---

GGC1040I  The SPACE(...) set involved that the error was detected in was #’XXXXX’.

**Explanation:** There was an error in the SPACE set indicated in the message.

**User response:** Verify the correct SPACE syntax has been specified.

---

GGC1041W  An error occurred during processing, but was overridden. Check all messages.

**Explanation:** An error occurred.

**User response:** Check messages for an error in processing.

---

GGC1042W  All objects are marked to skip. Log reading and further processing skipped.

**Explanation:** All objects are marked to skip so Db2 Change Accumulation Tool will skip further processing and log reading.

**User response:** No action is required.

---

GGC1043I  Only LOB spaces with 4G DSSIZE values are supported at this time.

**Explanation:** Support will be added in the future.

**User response:** No action is required.

---

GGC1044I  error_message

**Explanation:** This is a warning message that is associated with the ADD_TABLES and REMOVE_AND_ADD_TABLES keywords. If the stored procedure returns anything other than a successful return code, the error messages it provides are output under this error message.

**User response:** Review the warning messages generated by the stored procedure for accuracy. Contact IBM Software Support for assistance.

---

GGC1045E  An error occurred while attempting to load the DB2 call attach service.

**Explanation:** A z/OS load error occurred for the Db2 call attach service.

**User response:** Ensure that the //STEPLIB has the correct version of the Db2 loadlib data sets including SDSNLOAD.

---

GGC1046I  The space processing DATABASE_NAME,SPACE_NAME partition NUMBER was set to TO_CURRENT.

**Explanation:** The end point for the object indicated in the message was set to TO_CURRENT.

**User response:** No action is required.

---

GGC1047W  At least two end points within a single GROUP() are not the same.

**Explanation:** At least two end points within a GROUP are not the same.

**User response:** Verify that the end points you defined are correct.

---

GGC1049I  databaseName.tablespaceName Part #nnnnn Consistent RBA/LRSN = X’rba/lrsn’.

**Explanation:** Change Accum applied all committed units of work up to RBA/LRSN rba/lrsn. This message is issued for each table. In a Db2 data sharing environment, a decimal format timestamp is converted from the hexadecimal RBA/LRSN and displayed in the message.

**User response:** No action is required.

---

GGC1072E  DB2 V12 PBR2 objects are not yet supported.

**Explanation:** Db2 V12 PBR2 type objects are not supported at this time.

**User response:** Do not use PBR2 type objects in your Db2 Change Accumulation Tool jobs.

---

GGC1076I  The SPACE(...) set involved that the error was detected in was space

**Explanation:** There was an error in the SPACE set indicated in the message.

**User response:** Verify the correct SPACE syntax has been specified.
The first control card was not a request for Db2 Change Accumulation Tool.

Explanation: The JCL you submitted did not specify CHANGE_ACCUM as the first control card in the Db2 Change Accumulation Tool syntax.

User response: Correct the Db2 Change Accumulation Tool syntax. CHANGE_ACCUM is the main Db2 Change Accumulation Tool keyword. An open parenthesis must follow this keyword and the remainder of the Db2 Change Accumulation Tool keywords must be contained within.

Invalid syntax after CHANGE_ACCUM control card. Expected "(".

Explanation: The syntax after the CHANGE_ACCUM control card is not valid.

User response: Ensure the Db2 Change Accumulation Tool control cards are enclosed in parentheses.

Invalid syntax after SPACE control card. Expected ")".

Explanation: The syntax after the SPACE control card is not valid.

User response: Ensure the Db2 Change Accumulation Tool control cards are enclosed in parentheses.

The data base parameter was specified but no value was found with it.

Explanation: You specified the DATA_BASE parameter but did not specify a corresponding value.

User response: Enter the 8-character database name following the DATA_BASE keyword.

The table space name parameter was specified, but no value was found with it.

Explanation: You specified the SPACE_NAME parameter but did not specify a corresponding value.

User response: Enter the 8-character database name following the SPACE_NAME keyword.

The partition parameter was specified, but no value was found with it.

Explanation: You specified the PARTITION parameter but did not specify a corresponding value.

User response: Enter a partition number next to the PARTITION keyword.

The data base parameter is invalid.

Explanation: The DATA_BASE syntax is invalid.

User response: Verify that the DATA_BASE keyword has been properly specified in your JCL.

The space name parameter is invalid.

Explanation: The SPACE_NAME syntax is invalid.

User response: Verify that the SPACE_NAME keyword has been properly specified in your JCL.

The partition parameter is invalid.

Explanation: The PARTITION syntax is invalid.

User response: Verify that the PARTITION keyword has been properly specified in your JCL.

The end RBA parameter was specified, but no value was found with it.

Explanation: You specified the END_RBA keyword but did not specify a corresponding value.

User response: Enter a valid value for the END_RBA keyword.

Syntax error around end RBA value. Form is X’6 byte hex value’.

Explanation: The end RBA must be in the format x’nnnnnn’ where nnnnnn is the hexadecimal value of the end RBA.

User response: Enter the end RBA value in the correct format.

The end RBA value contains an invalid hexadecimal value.

Explanation: The hexadecimal value specified for the end RBA is not valid.

User response: Correct the end RBA value.

The end RBA value cannot be 0.

Explanation: The value specified for the END_RBA keyword cannot be 0.

User response: Specify a valid value for the END_RBA keyword.

The end RBA value was already specified before end LRSN in a control group.

Explanation: In the Db2 Change Accumulation Tool JCL, the end RBA value is specified before end LRSN for the group.
You can only specify end RBA or End LRSN, not both. Correct the JCL and resubmit the job.

The end LRSN parameter was specified, but no value was found with it.

Explanation: The END_LRSN keyword is missing its parameter value.

User response: Enter the end LRSN following the END_LRSN keyword.

Syntax error around end LRSN value. Form is X"<6 byte hex value>".

Explanation: The end LRSN must be in the format X"nnnnnn", where nnnnnn is the hex value of the end LRSN.

User response: Enter the end LRSN value in the correct format.

The end LRSN value contains an invalid hexadecimal value.

Explanation: The hexadecimal value entered is invalid.

User response: Enter the correct value.

The end LRSN value cannot be 0.

Explanation: The end LRSN cannot be 0.

User response: Enter the correct value.

The end LRSN value was already specified before end RBA in a control group.

Explanation: In the Db2 Change Accumulation Tool JCL, the end LRSN value is specified before end RBA for the group.

User response: You can only specify end RBA or End LRSN, not both. Correct the JCL and resubmit the job.

One of the following options must be specified: TO_CURRENT, TO QUIESCE, END_RBA, END_LRSN, TO_IC, TO_TIMESTAMP, TO_TIMESTAMP_LOCAL, or TOLOGPOINT.

Explanation: The product requires a log range end point to complete the process.

User response: Ensure that the control card set includes a valid end point control card or a single end point control card factored out at the group level. You can use one of the options listed in the message text.

Only one end point (END_RBA, END_LRSN, TO_CURRENT, TO QUIESCE, TO_TIMESTAMP, TO_TIMESTAMP_LOCAL, TO_IC, or TOLOGPOINT) can be specified.

Explanation: You specified more than one end point parameter.

User response: Specify only one end point parameter.

The starting image copy value has mismatched apostrophes.

Explanation: An apostrophe is missing from the starting image copy data set name on the STARTING_IC keyword.

User response: Ensure the Db2 Change Accumulation Tool control cards are enclosed in parentheses.

The starting image copy value has no contents.

Explanation: There is a problem with the starting image copy data set name included with the STARTING_IC keyword. Either the data set name is missing or spelled incorrectly, the data set cannot be opened, or the data set is not a valid image copy data set.

User response: Specify the correct data set.

A token value was found that was either not part of the Db2 Change Accumulation Tool command set or was misplaced in the Db2 Change Accumulation Tool control cards. The value of the invalid token is: keyword

Explanation: An invalid keyword appears in the control cards.

User response: Check the list of valid keywords and parameters, correct the keyword, and resubmit.

A table/index space name pair or index name pair is incomplete.

Explanation: One of the table/index space name pairs you specified is incomplete.

User response: Verify that all table/index space name pairs have been specified correctly. Edit your JCL as needed and resubmit the job.

The space space was not found in the DB2 catalog. Space space.

Explanation: The table space you specified in your Db2 Change Accumulation Tool JCL does not exist in the Db2 catalog.
User response: Correct the JCL and resubmit the job.

GGC1129E  A partition was specified for [x] but the space is non-partitioned.
Explanation: A partition was specified for a non-partitioned table space.
User response: Correct the Db2 Change Accumulation Tool JCL and resubmit the job.

GGC1130E  A partition was specified for [x] but the partition is not defined.
Explanation: A partition was specified but no partition is defined for that table space.
User response: Specify the correct table space partition information.

GGC1131E  In a data sharing environment, specifying RBA values is not allowed.
Explanation: You specified an RBA value in a data sharing environment. RBA values are not available for use in data sharing environments.
User response: Correct the JCL and resubmit the job. If necessary use LRSN values instead of RBA values.

GGC1132E  In a non data sharing environment, specifying LRSN values is not allowed.
Explanation: You are currently using a data sharing environment so the LRSN values you specified are not allowed.
User response: Do not use an LRSN value in your JCL or profile.

GGC1133E  The command set must end with a close parenthesis ")".
Explanation: There is no close parenthesis following the Db2 Change Accumulation Tool input cards.
User response: Enter a close parenthesis following the Db2 Change Accumulation Tool input cards.

GGC1134E  The command set has extra parameters after the close parenthesis.
Explanation: A command is outside the close parenthesis.
User response: Ensure the Db2 Change Accumulation Tool control cards are enclosed in parentheses.

GGC1135E  The SYSINGGC DD card could not be found in the JCL.
Explanation: Db2 Change Accumulation Tool requires the SYSINGGC DD as input to the job. The SYSINGGC DD could not be found in the JCL.
User response: Specify this DD as instream or as a data set.

GGC1136E  The SYSINGGC DD card could not be opened for input.
Explanation: The SYSINGGC DD points to a data set but that data set could not be opened for input.
User response: Verify that the SYSINGGC DD is not being accessed by other resources and resubmit the job.

GGC1137E  The SYSINGGC DD input stream is empty.
Explanation: No control cards appear in the instream file or the input data set.
User response: Correct the JCL and resubmit the job.

GGC1138E  The parsing process gave an invalid return code.
Explanation: There is an error in your Db2 Change Accumulation Tool JCL.
User response: Correct the JCL and resubmit the job.

GGC1139E  The functional limit of Db2 Change Accumulation Tool is 20000 Space control card groups.
Explanation: You specified more than 20000 Db2 Change Accumulation Tool SPACE control card groups.
User response: Specify less than 20000 SPACE control card groups.

GGC1140E  The following object is specified at least 2 times in the control cards:
Explanation: You specified the listed object twice or more in the control cards.
User response: Specify the object at most once in the control card.

GGC1141E  Duplicate objects found in control card stream: PART part SPACE NUMB space numb.
Explanation: Duplicate object detected in control card stream.
User response: Remove the duplicate object.
The DATABASE keyword has already been coded for this space group.

**Explanation:** You specified the DATABASE parameter more than once for the SPACE group.

**User response:** Correct the JCL and resubmit the job.

The SPACE_NAME keyword has already been coded for this space group.

**Explanation:** You specified the SPACE_NAME parameter more than once for the SPACE group.

**User response:** Correct the JCL and resubmit the job.

The PARTITION keyword has already been coded for this space group.

**Explanation:** You specified the PARTITION parameter more than once for the SPACE group.

**User response:** Correct the JCL and resubmit the job.

The END_RBA keyword has already been coded for this space group.

**Explanation:** You can only specify the END_RBA once for each SPACE group.

**User response:** Correct the Db2 Change Accumulation Tool JCL and resubmit the job.

The END_LSRN keyword has already been coded for this space group.

**Explanation:** You specified the END_LRSN parameter more than once for the SPACE group.

**User response:** Specify the END_LRSN parameter at most once in the JCL and resubmit the job.

The TO_CURRENT keyword has already been coded for this space group.

**Explanation:** You specified the TO_CURRENT keyword more than once for the SPACE group.

**User response:** Correct the JCL and resubmit the job.

The TOQUIESCE keyword has already been coded for this space group.

**Explanation:** You specified the TOQUIESCE parameter more than once for the SPACE group.

**User response:** Correct the JCL and resubmit the job.

The STARTING_IC keyword has already been coded for this space group.

**Explanation:** You specified the STARTING_IC parameter more than once for the SPACE group.

**User response:** Correct the JCL and resubmit the job.

The MINI_LOG_DSN_2 keyword has already been coded for this run.

**Explanation:** You specified the MINI_LOG_DSN_2 keyword multiple times for the Db2 Change Accumulation Tool GROUP keyword. Only one MINI_LOG_DSN_2 keyword can be specified for each GROUP keyword.

**User response:** Remove the extra MINI_LOG_DSN_2 keywords, leaving at most one.

The NO_SYSCOPY_ROW keyword has already been coded for this run.

**Explanation:** You specified the NO_SYSCOPY_ROW parameter more than once for the job.

**User response:** Correct the JCL and resubmit the job.

The RECOVER_Y_SITE keyword has already been coded for this run.

**Explanation:** You specified the RECOVER_Y_SITE parameter more than once for the job.

**User response:** Correct the JCL and resubmit the job.

The LOCAL_SITE keyword has already been coded for this run.

**Explanation:** You specified the LOCAL_SITE parameter more than once for the job.

**User response:** Correct the JCL and resubmit the job.

The SPACE(...) set involved that the error was detected in was #.

**Explanation:** This message indicates the SPACE set number for which the error was detected.

**User response:** Correct the JCL and resubmit the job.

Control card stream processed by Change Accum follows...

**Explanation:** Indicates the control card stream that was processed by Db2 Change Accumulation Tool.

**User response:** No action is required.

Change Accum processing messages follow...

**Explanation:** Indicates that there are Db2 Change Accumulation Tool messages that follow.

**User response:** Evaluate the message as necessary.
GGC1157E The MINI_LOG_DSN/ MINI_LOG_DSN_1 keyword has already been coded for this run.

Explanation: You specified the MINI_LOG_DSN or MINI_LOG_DSN_1 keywords multiple times for the Db2 Change Accumulation Tool GROUP keyword. Only one MINI_LOG_DSN or MINI_LOG_DSN_1 keywords can be specified for each GROUP keyword.

Note: MINI_LOG_DSN and MINI_LOG_DSN_1 are functionally identical.

User response: Code only a single MINI_LOG_DSN or MINI_LOG_DSN_1 keyword per group.

GGC1158E The GROUP(...) set involved that the error was detected in was #'{x}'.

Explanation: Indicates the GROUP set for which an error was detected.

User response: Verify the syntax of the indicated GROUP set and correct as needed.

GGC1159I Change Accum version

APAR_release_number assembly_date
assembly_time

Explanation: This informational message indicates which version of the product (or in some cases, a product component) is running.

User response: No action is required. If you need assistance locating information about the APAR, contact IBM Software Support.

GGC1160E Either all groups need a mini-log data set or all groups must be without them.

Explanation: You have specified a mini log data set for some but not all groups in the JCL.

User response: Either specify a mini log data set for all groups or none of the groups within the JCL.

GGC1161E Each group must have its own unique mini log data set name.

Explanation: The mini log data sets you specified are not all unique.

User response: Rename mini log data sets so the each have a unique name.

GGC1162E The data set dataset already exists in the Change Accum mini log control table.

Explanation: The data set you specified in the data set name generation qualifier string already exists in the Db2 Change Accumulation Tool mini log control table.

User response: Specify a unique mini log data set name.

GGC1163E The specified mini log data set dataset already exists in the MVS catalog.

Explanation: The mini log data set shown in the message is not unique and already exists in the MVS catalog.

User response: Specify a unique mini log data set name.

GGC1164W The NO_SYSCOPY_ROW control card is ignored when producing mini logs.

Explanation: You used the NO_SYSCOPY_ROW control card in the JCL but this parameter is ignored when producing mini logs.

User response: Correct the JCL and resubmit the job.

GGC1165E The mini log data set value has mismatched apostrophes.

Explanation: The value you specified for MINI_LOG_DSN is not enclosed in matching apostrophes.

User response: Correct the apostrophes in your JCL and resubmit the job.

GGC1166E The mini log data set value has no contents.

Explanation: The MINI_LOG_DSN keyword has been specified without a value.

User response: Specify a valid value for the MINI_LOG_DSN keyword.

GGC1167E Operations on the DB2 directory are not allowed.

Explanation: You attempted to image copy the Db2 directory table space. This operation is not allowed.

User response: Do not perform operations on the Db2 directory.

GGC1168E Operations on the DB2 Catalog table space DSNDB06.SYSCOPY are not allowed.

Explanation: You attempted to image copy the Db2 catalog table space. This operation is not allowed.

User response: Do not perform operations on the Db2 catalog.
Space can be designated as DATA_BASE SPACE_NAME pair, or CREATOR INDEX pair.

Explanation: Control cards within the SPACE() group refer to both indexes and tables. This is not allowed.
User response: Edit your JCL so the SPACE() group control cards refer to either indexes or tables (but not both).

The index creator name parm was specified, but no value was found with it.

Explanation: If you specify an index creator name, you must specify a value with it.
User response: Specify a value for the index creator parameter.

The index creator parameter is invalid.

Explanation: The parameter you specified for the index creator is not valid.
User response: Specify a valid index creator value.

The CREATOR keyword has already been coded for this space group.

Explanation: You specified multiple CREATOR keywords for a space group. You can only specify the CREATOR keyword once for the space group.
User response: Remove all extra CREATOR keywords and resubmit your Db2 Change Accumulation Tool job.

The index name parameter was specified, but no value was found with it.

Explanation: You specified the INDEX_NAME parameter but no value was specified with it.
User response: Specify a value for the INDEX_NAME keyword or remove the keyword.

The index name parameter is invalid.

Explanation: The specification of the INDEX_NAME parameter is not valid.
User response: Correct the INDEX_NAME parameter specification.

The NAME keyword has already been coded for this space group.

Explanation: The NAME keyword was specified more than once for the space group.
User response: Remove all unnecessary NAME keywords from the space group. Only one NAME keyword can be specified for the group.

The object object was not found in the DB2 catalog.

Explanation: The object indicated in the message was not found in the Db2 Catalog. Processing cannot proceed for the indicated object.
User response: Contact IBM Software Support.

The value was not properly enclosed with apostrophes.

Explanation: The syntax you specified was not valid. The value must be enclosed in apostrophes but was not.
User response: Correct the syntax by enclosing the value in apostrophes.

The index does not currently have COPY=YES activated in DB2.

Explanation: The index cannot be copied because COPY=YES is not specified.
User response: Specify COPY=YES for the index.

The index index was mapped to indexspace indexspace Space# space#.

Explanation: This informational message displays the database name and indexspace name for the index specified in the control cards.
User response: No action is required.

The LOCAL_SITE and RECOVER_Y_SITE control cards cannot be specified together.

Explanation: LOCAL_SITE and RECOVERY_SITE control cards are mutually exclusive.
User response: Specify either LOCAL_SITE or RECOVERY_SITE but not both.

The WRITE_TO_VSAM keyword has already been coded for this run.

Explanation: The WRITE_TO_VSAM control card was specified multiple times. It should be specified at most once.
User response: Correct the syntax and resubmit the job.
GGC1182E  The NO_MINILOG_CHECKPOINTS keyword has already been coded for this run.

Explanation: Multiple instances of the NO_MINILOG_CHECKPOINTS keyword have been coded in your Db2 Change Accumulation Tool job. This keyword can only be coded once for your run.

User response: Remove all extraneous instances of the NO_MINILOG_CHECKPOINTS keyword from your Db2 Change Accumulation Tool syntax.

GGC1183E  The NO_SYSCOPY_ROW control card is ignored when writing directly to VSAM.

Explanation: The NO_SYSCOPY_ROW control card is used if you want Db2 Change Accumulation Tool to skip updating the SYSCOPY catalog table with a new row for the new image copy. If you specify WRITE_TO_VSAM or WRITE_TO_BOTH, this is not applicable and therefore, the NO_SYSCOPY_ROW control card will be ignored and the SYSCOPY catalog table will be updated with a new row for the image copy.

User response: No action is required. If you do not want the SYSCOPY catalog table to be updated with a new row for the image copy, specify WRITE_TO_COPIES.

GGC1184E  The WRITE_TO_VSAM and MINI_LOG_DSN control cards are mutually exclusive.

Explanation: Your Db2 Change Accumulation Tool syntax includes both the WRITE_TO_VSAM and MINI_LOG_DSN control cards. The WRITE_TO_VSAM control card cannot be used with the MINI_LOG_DSN control card.

User response: Correct your Db2 Change Accumulation Tool syntax.

GGC1185E  The control card set ended prematurely. Ensure proper continuation syntax

Explanation: The CHANGE_ACCUM control card set contains an error and as a result ended prematurely.

User response: Check and correct your Db2 Change Accumulation Tool syntax.

GGC1186E  The WRITE_TO_COPIES keyword has already been coded for this run.

Explanation: The WRITE_TO_COPIES keyword has been specified more than once in a CHANGE_ACCUM run.

User response: Correct your syntax by removing any extra WRITE_TO_COPIES keywords.

GGC1187E  The WRITE_TO_BOTH keyword has already been coded for this run.

Explanation: The WRITE_TO_BOTH keyword has been specified more than once for a single CHANGE_ACCUM run.

User response: Correct your syntax by removing any extra WRITE_TO_BOTH keywords.

GGC1188E  Only one WRITE_TO_ control card can be specified per run.

Explanation: Multiple WRITE_TO_ (WRITE_TO_VSAM, WRITE_TO_COPIES, WRITE_TO_BOTH) control cards have been specified in your JCL. Only one is allowed per run.

User response: Remove all extraneous WRITE_TO_ control cards and resubmit the job. If you want to write to VSAM and to image copies, specify WRITE_TO_BOTH.

GGC1189E  The BUFFERS_IN_31_BIT keyword has already been coded for this run.

Explanation: The BUFFERS_IN_31_BIT control card was specified multiple times. It should be specified at most once.

User response: Correct the syntax and resubmit the job.

GGC1190E  While trying to read zparm_name information, program finished with code hexadecimal_return_code.

Explanation: This message is displayed if an unexpected error occurred. The message displays the error return code when the program is trying to provide information about Db2 ZPARM fields.

Description of error codes:

- 00008: Open for Db2 libraries failed.
- 00012: Load for ZPARM module failed.
- 00108: Combined with error return code from the internal macro. Contact IBM Software Support.
- 00116: The first Db2 LOADLIB in the subsystem concatenation is blank. Check control file setup; if everything is correct, contact IBM Software Support.
- 00120: One of the Db2 LOADLIBs in the concatenation could not be allocated. Check control file setup; if everything is correct, contact IBM Software Support.
- 00124: The Db2 LOADLIBs in the concatenation list could not be concatenated. Check control file setup; if everything is correct, contact IBM Software Support.

User response: Check control file setup if the description of the error code requires it; if not, or if the control file is correct, contact IBM Software Support.
Mini log data set #1 must be specified if mini log data set #2 is specified.

**Explanation:** If you specify a secondary mini log data set, you must also specify a primary mini log data set. Thus, if you include the MINI_LOG_DSN_2 control card in your Db2 Change Accumulation Tool syntax, you must also include the MINI_LOG_DSN_1 control card in your Db2 Change Accumulation Tool syntax.

**Note:** If you specify a primary mini log data set, you are not required to specify a secondary mini log data set.

**User response:** To resolve this issue, you must do one of the following:

- remove the MINI_LOG_DSN_2 control card from your syntax
- specify both MINI_LOG_DSN_1 and MINI_LOG_DSN_2
- specify only MINI_LOG_DSN_1

**Explanation:** The value specified for the TOLOGPOINT control card is not valid. You cannot specify a value of 0.

**User response:** Correct the value specified for the TOLOGPOINT control card. Ensure that you specify a valid hexadecimal value that indicates the point up to which you want to make the image copy.

**Explanation:** The value specified for the TOLOGPOINT control card overrides the specified END_LRSN control card.

**User response:** Remove the unnecessary END_LRSN control card and adjust the TOLOGPOINT value as needed or remove the TOLOGPOINT control card.

**Explanation:** The TOLOGPOINT control card need only be specified once for a space group.

**User response:** Remove the extra TOLOGPOINT control card and ensure that the TOLOGPOINT control card that remains in your syntax is set to the correct log point.

**Explanation:** The GROUP end point is invalid and conflicts with that of the SPACE level.

**User response:** Correct the syntax.

**Explanation:** You coded the FORCE_COPIES control card multiple times for the run.

**User response:** Check your syntax and remove any unnecessarily FORCE_COPIES control cards. Only one FORCE_COPIES control card is allowed per run.

**Explanation:** The subsystem Change Accum was started with could not be found in JES2.

**User response:** Verify that you have specified the correct subsystem.
GGC1201E  The subsystem Change Accum was started with is not active in JES2.

Explanation: This message indicates that the subsystem that Db2 Change Accumulation Tool was started with is not active in JES2.

User response: No action is required.

GGC1202E  There are no active DB2 members on this machine for this data sharing group.

Explanation: The data sharing group you specified does not have any active Db2 members so Change Accum processing cannot proceed.

User response: Specify a valid data sharing group attach name or a valid subsystem on which the Db2 Change Accumulation Tool processing can run.

GGC1203I  DB2 subsystem is not defined to OS/390. Using group attach name instead.

Explanation: The Db2 subsystem you specified is not defined on OS/390®. If you use a group attach name, you will be able to connect to a Db2 subsystem that is active on OS/390.

User response: Edit your Db2 Change Accumulation Tool setup to connect to a group attach name or to connect to a Db2 subsystem that is active on OS/390.

GGC1204I  DB2 subsystem is not active on OS/390. Using group attach name instead.

Explanation: The Db2 subsystem you specified is not active on OS/390. If you use a group attach name, you will be able to connect to a Db2 subsystem that is active on OS/390.

User response: Edit your Db2 Change Accumulation Tool setup to connect to a group attach name or to connect to a Db2 subsystem that is active on OS/390.

GGC1205I  The subsystem Change Accum was started with is the group attach name.

Explanation: This message indicates the subsystem group attach name that Change Accum process is using.

User response: No action is required.

GGC1206I  The following subsystems are part of the data sharing group.

Explanation: This message, in conjunction with message GGC1207I, provides the following information about the subsystem on which your Db2 Change Accumulation Tool job ran:

- Subsystem—the subsystem.
- Member ID—the member ID.
- Defined to OS/390—whether this member is defined to OS/390.
- Active—whether this member is known to this OS/390 running on OS/390.

Note: Db2 Change Accumulation Tool cannot detect the status of a member that is not running on this OS/390. Although a Db2 member may appear to be inactive, it may be running on another OS/390. Regardless, Db2 Change Accumulation Tool reads the logs and processes all of the necessary files from each member of the data sharing group.

User response: No action is required.

GGC1207I  Subsystem: subsystem  Member ID: memberid  Defined to OS/390: system  Active: status

Explanation: This message, in conjunction with message GGC1206I, provides the following information about the subsystem on which your Db2 Change Accumulation Tool job ran:

- The subsystem.
- The member ID.
- Whether or not this member is defined to OS/390.
- Whether or not this member is running on OS/390.

Note: Db2 Change Accumulation Tool cannot detect the status of a member that is not running on this OS/390. Although a Db2 member may appear to be inactive, it may be running on another OS/390. Regardless, Db2 Change Accumulation Tool reads the logs and processes all of the necessary files from each member of the data sharing group.

User response: No action is required.

GGC1208I  ssids

Explanation: This message displays the SSIDs that accompany messages GGC1206I and GGC1207I.

User response: No action is required.

GGC1209A  Change Accum is not in an APF authorized concatenation. It needs to be.

Explanation: To run, Db2 Change Accumulation Tool requires that the target load libraries SGGCLOAD and SGGCLOAD are APF authorized.

User response: Include the highlevel.SGGCLOAD and highlevel.SGGCLOAD libraries as part of your system APF authorized list.
GGC1210A Change Accum needs to run from a //STEPLIB concatenation.

Explanation: Your JCL does not specify a //STEPLIB concatenation.

User response: Correct your JCL and resubmit the job.

GGC1211A The following data set in the //STEPLIB concatenation is not APF authorized: data_set

Explanation: The data set indicated in the message requires APF authorization.

User response: APF authorize the data set indicated in the message.

GGC1212A An internal error occurred while attempting to ascertain APF authorization status.

Explanation: An internal error occurred.

User response: Contact IBM Software Support.

GGC1300I The ENQs for the spaces were successful.

Explanation: This message indicates that the ENQs for the table spaces completed successfully.

User response: No action is required.

GGC1301E The ENQ for database database PART part was not successful.

Explanation: Indicates the database and partition for which the ENQs did not complete successfully.

User response: No action is required.

GGC1400I Incremental image copy image_copy could not be allocated.

Explanation: Indicates the incremental image copy that could not be allocated.

User response: No action is required.

GGC1401I Incremental image copy image_copy could not be deallocated.

Explanation: Indicates the incremental image copy that could not be deallocated.

User response: No action is required.

GGC1402E Could not start log record writer.

Explanation: A z/OS attachment error occurred attempting to start a component of the load read phase process.

User response: Ensure the product library is complete. Contact IBM Software Support.

GGC1403I The desired incremental image copy could not be opened.

Explanation: Db2 Change Accumulation Tool could not open the incremental image copy you specified.

User response: Verify that the file is not in use.

GGC1404I The incremental image copy work file could not be opened.

Explanation: Db2 Change Accumulation Tool could not open the incremental image copy work file.

User response: Verify that the file is not in use and that you have the proper authority to access this file.

GGC1405I The incremental image copy sort input file could not be opened.

Explanation: Db2 Change Accumulation Tool could not open the incremental image copy sort input file.

User response: Verify that the file is not in use and that you have the proper authority to access this file.

GGC1406I A read request to the current incremental image copy failed.

Explanation: A request to read the current incremental image copy was not successful.

User response: Verify that the file is not in use and that you have the proper authority to access this file.

GGC1407I Could not allocate the sort input work file for incr. IC processing.

Explanation: Db2 Change Accumulation Tool was not able to allocate the sort input work file for incremental image copy processing.

User response: Verify that the file is not in use and that you have the proper authority to allocate this file.

GGC1408I Could not allocate the sort output work file for incr. IC processing.

Explanation: Db2 Change Accumulation Tool was not able to allocate the sort output work file for incremental image copy processing.

User response: Verify that the file is not in use and that you have the proper authority to allocate this file.
GCG1409I An invalid return code was detected from the SORT program.

**Explanation:** Db2 Change Accumulation Tool detected an invalid return code when attempting to SORT.

**User response:** Contact IBM Software Support.

GCG1410I Dynamic allocation return code =return code.

**Explanation:** Dynamic allocation produced the return code shown in the message.


GCG1411I The last reported incremental image copy returned an immediate EOF.

**Explanation:** Db2 Change Accumulation Tool encountered an immediate end of file for the last reported incremental image copy.

**User response:** No action is required.

GCG1412I Image copy name=image_copy RBA=rba.

**Explanation:** Indicates the image copy name and RBA.

**User response:** No action is required.

GCG1413I The accumulation of incremental image copies failed.

**Explanation:** The accumulation of incremental image copies was not successful.

**User response:** No action is required.

GCG1414I The DB2 log will be used instead of the unusable incremental image copies.

**Explanation:** This message indicates that the Db2 log will be used in the Db2 Change Accumulation Tool process since the incremental image copies are unusable.

**User response:** No action is required.

GCG1415I The sort of the incremental image copies was successful.

**Explanation:** This message indicates that the sort of the incremental image copies completed successfully.

**User response:** No action is required.

GCG1416E A FTR sort program could not be started.

**Explanation:** The SORT program could not be started.

**User response:** Contact IBM Software Support.

GCG1417E An invalid return code was detected from the SORT program (FTR).

**Explanation:** The SORT program ended with an error.

**User response:** Contact IBM Software Support.

GCG1420E While trying to read zparm_name information, program finished with code hexadecimal_return_code.

**Explanation:** This message is displayed if an unexpected error occurred. The message displays the error return code when the program is trying to provide information about Db2 ZPARM fields.

**Description of error codes:**
- 00008: Open for Db2 libraries failed.
- 00012: Load for ZPARM module failed.
- 00108: Combined with error return code from the internal macro. Contact IBM Software Support.
- 00116: The first Db2 LOADLIB in the subsystem concatenation is blank. Check control file setup; if everything is correct, contact IBM Software Support.
- 00120: One of the Db2 LOADLIBs in the concatenation could not be allocated. Check control file setup; if everything is correct, contact IBM Software Support.
- 00124: The Db2 LOADLIBs in the concatenation list could not be concatenated. Check control file setup; if everything is correct, contact IBM Software Support.

**User response:** Check control file setup if the description of the error code requires it; if not, or if the control file is correct, contact IBM Software Support.

GCG1500I An invalid return code was detected from the SORT program (log).

**Explanation:** Db2 Change Accumulation Tool encountered an invalid return log.

**User response:** Correct the JCL and resubmit the job.

GCG1501E task_number The following log data set is required for processing but got an error: error.

**Explanation:** Db2 requires the log data set for processing but received the indicated error code when attempting to access the data set.

**User response:** Verify that the file is not in use and that you have the proper authority to access this file.
GGC1502E  task_number  A gap was found in the logs needed for processing. Last usable log was:

Explanation: A gap found in the logs required for processing was found. Logs after the gap were not usable. Subsequent message GGC1503I indicates the log data set name of the last usable log.

User response: No action is required.

GGC1503I  task_number  data_set_name

Explanation: This message accompanies GGC1502E and indicates the log data set name that was last usable.

User response: No action is required.

GGC1504E  task_number  A desired log range cannot be found in any active/archive log.

Explanation: The log range is not available in any of the active or archive logs.

User response: No action is required.

GGC1506W  db2_ssid  The start point for log processing was not within any archive/active log range.

Explanation: No log records for the objects in this run were found in this db2_ssid

User response: No action is required.

GGC1508I  The sort of the applicable log records was successful.

Explanation: This message indicates that the sort of the applicable log records completed without error.

User response: No action is required.

GGC1510I  task_number  Error code #1: 'code' #2: 'code'

Explanation: This message indicates an internal error that occurs when the log reader process cannot allocate an active or archive log file


GGC1512E  task_number  An unexpected error occurred while trying to read the bootstrap data set.

Explanation: Change Accum was unable to read the bootstrap data set.

User response: No action is required.

GGC1513E  task_number  While trying to read zparm_name information, program finished with code hexadecimal_return_code.

Explanation: This message is displayed if an unexpected error occurred. The message displays the error return code when the program is trying to provide information about Db2 ZPARM fields.

Description of error codes:

• 00108: Combined with error return code from the internal macro. Contact IBM Software Support.
• 00120: One of the Db2 LOADLIBs in the subsystem concatenation is blank. Check control file setup; if everything is correct, contact IBM Software Support.
• 00124: The Db2 LOADLIBs in the concatenation list could not be concatenated. Check control file setup; if everything is correct, contact IBM Software Support.
• 00125: The first Db2 LOADLIB in the subsystem concatenation is not found in the subsystem indicated in the message. Contact IBM Software Support.
• 00126: The Db2 LOADLIBs in the subsystem concatenation list could not be concatenated. Check control file setup; if everything is correct, contact IBM Software Support.

User response: Check control file setup if the description of the error code requires it; if not, or if the control file is correct, contact IBM Software Support.

GGC1514E  task_number  An error was detected during end log processing for subsystem ssid RC=rc.

Explanation: Change Accum encountered an error for the indicated subsystem.


GGC1515I  task_number  Log accumulated processing is beginning on subsystem ssid.

Explanation: Log accumulated processing has started on the subsystem indicated in the message.

User response: No action is required.

GGC1516I  task_number  Above the bar storage exhausted.

Explanation: The above the bar storage has been exhausted due to system or control card limits.

User response: The limit set by the maximum secondary allocation parameter has been met.
GGC1517I  All start points are Sharelevel Reference; checkpoint processing skipped.

Explanation: This informational messages indicates that checkpoint processing has been skipped since all start points are Sharelevel Reference.
User response: No action is required.

GGC1602E  The file used to hold log records after they are sorted could not be allocated.

Explanation: Db2 Change Accumulation Tool could not allocate the file used to hold log records after they have been sorted.
User response: Verify that the file is not currently in use or damaged.

GGC1603E  The mini log data set mini_log_dsn could not be allocated.

Explanation: Db2 Change Accumulation Tool could not allocate the mini log data set.
User response: Verify that the file is not currently in use or damaged.

GGC1604E  The mini log data set min_log_dsn could not be opened.

Explanation: There was a problem encountered when attempting to open the mini log data set.
User response: Verify that the file is not currently in use or damaged.

GGC1605E  Dynamic allocation return code 'rc'.

Explanation: This diagnostic message indicates data set allocation failure.

GGC1606I  The DB2 log record sort DD ddname was allocated.

Explanation: This message displays the input DDNAME. This message is output if Db2 Change Accumulation Tool dynamically allocates the SORTIN2/SORTOUT2 DDNAMES. If the SORTIN2/SORTOUT2 DDNAMES are specified by the user in the step JCL, the messages does not appear and those DDs will be used as specified.
User response: No action is required.

GGC1607I  The DB2 log record sort DD ddname was allocated.

Explanation: This message displays the output DDNAME. This message is output if Db2 Change Accumulation Tool dynamically allocates the SORTIN2/SORTOUT2 DDNAMES. If the SORTIN2/SORTOUT2 DDNAMES are specified by the user in the step JCL, the messages does not appear and those DDs will be used as specified.
User response: No action is required.
The mini log data set dsn could not be located for append purpose.

**Explanation:** The mini log data set could not be located.

**User response:** Ensure the mini log data set is available.

The mini log data set dsn could not be renamed for append purpose.

**Explanation:** The mini log data set could not be renamed.

**User response:** Ensure the mini log data set is available.

An invalid return code was detected from the SORT program (data sharing).

**Explanation:** A data sharing problem has occurred.

**User response:** Verify that you have properly configured the data sharing information in Db2 Change Accumulation Tool setup.

The following log data set is required for processing, but was not found: data_set.

**Explanation:** Processing could not proceed because a required log data set could not be found.

**User response:** Verify that the log data set was specified correctly and exists.

A gap was found in the logs needed for processing. Last usable log was:

**Explanation:** A gap found in the logs required for processing was found. Logs after the gap were not usable. Subsequent message GGC1703I indicates the log data set name of the last usable log.

**User response:** Correct the problem with the logs and resubmit the Change Accum job.

**Note:** GGC1708I messages always refers to the most recent GGC1709I message.

The file used to hold log records as input to sort could not be allocated.

**Explanation:** Db2 Change Accumulation Tool could not allocate the file used to hold log records as input to sort.

**User response:** Verify that the file is not currently in use or damaged.

The file used to hold log records as input to sort could not be opened.

**Explanation:** Db2 Change Accumulation Tool could not open the file that holds the log records as input to sort.

**User response:** Verify that the file is not currently in use or damaged.

The file used to hold log records after they are sorted could not be allocated.

**Explanation:** Db2 Change Accumulation Tool could not allocate the file used to hold log records after they have been sorted.

**User response:** Verify that the file is not currently in use or damaged.

The start point for reading log records was not within any archive/active log.

**Explanation:** Db2 Change Accumulation Tool could not find any log records to process for this member of the data sharing group. This does not mean that there are no log records generated for the spaces being processed. Instead, it means that this particular member ID—being processed as indicated by a prior GGC1709I message, ’’GGC is now processing subsystem xxxx’’—has no log records to participate in the merge process. The other members in the data sharing group may have log records.

**Note:** GGC1708I messages always refers to the most recent GGC1709I message.

**User response:** No action is required.

Log accumulate processing is beginning on subsystem subsystem.

**Explanation:** This message indicates that the log accumulate processing has started on the subsystem.

**User response:** No action is required.

The log apply process will begin at LRSN: X' lrsn'.

**Explanation:** This message indicates that the log apply process will begin at the specified LRSN.
User response: No action is required.

GGC171I The sort of the data sharing log records was successful.
Explanation: This message indicates that the sort of the data sharing log records completed successfully.
User response: No action is required.

GGC1712I The sort of the data sharing log records was not necessary.
Explanation: This message indicates that the sort of the data sharing log was unnecessary.
User response: No action is required.

GGC1713I An unexpected error occurred while trying to read the bootstrap data set.
Explanation: An unexpected error occurred.
User response: Contact IBM Software Support.

GGC1714I The load module GGC@LOGR could not be found.
Explanation: A load module could not be found.
User response: Verify that the necessary load modules are available.

GGC1715I Error code #1:code #2:code.
Explanation: An internal error has occurred.
User response: Contact IBM Software Support.

GGC1716I An unexpected error occurred while trying to read the ZPARM information.
Explanation: An unexpected error was encountered.
User response: Contact IBM Software Support.

GGC1717I Dynamic allocation return code = 'rc'.
Explanation: This diagnostic message indicates data set allocation failure.

GGC1800E The most recent full image copy could not be allocated.
Explanation: Db2 Change Accumulation Tool could not allocate the full image copy file.
User response: Verify that the full image copy file has not been damage. Check with your systems administrator to verify that you have proper authorizations to access the necessary file.

GGC1802E The work file for re-keying the full image copy file could not be allocated.
Explanation: Db2 Change Accumulation Tool could not allocate the work file for re-keying the full image copy file.
User response: Verify that the full image copy file has not been damage. Check with your systems administrator to verify that you have proper authorizations to access the necessary file.

GGC1803E The most recent full image copy could not be opened.
Explanation: Db2 Change Accumulation Tool could not open the most recent full image copy.
User response: Verify that the full image copy is not currently being used and resubmit the job.

GGC1804E The temporary file used to re-key the full IC could not be opened.
Explanation: Db2 Change Accumulation Tool could not open the temporary file used to re-key the full image copy.
User response: Verify that the file is not in use and that you have the proper authority to access this file.

GGC1805I Dynamic allocation return code=rc.
Explanation: This message indicates the dynamic allocation return code.
User response: No action is required.

GGC1806I Image copy name=image_copy_name
RBA=rba
Explanation: Indicates the image copy name and RBA.
User response: No action is required.

GGC1807E The work file for sorting the full image copy file could not be allocated.
Explanation: Db2 Change Accumulation Tool could not allocate the full image copy file.
User response: Verify that the full image copy file has not been damage. Check with your systems administrator to verify that you have proper authorizations to access the necessary file.

GGC1808E Contact IBM Software Support.

252 IBM Db2 Change Accumulation Tool for z/OS
GGC1808I  The full image copy image_copy could not be deallocated.
Explanation:  Db2 Change Accumulation Tool could not deallocate the full image copy.
User response:  Verify that the file is not in use or damaged. Check with your systems administrator to ensure you have proper authorizations to access this file.

GGC1809E  The full image copy file returned an immediate EOF.
Explanation:  Db2 Change Accumulation Tool could not deallocate the full image copy.
User response:  Verify that the file is not in use or damaged. Check with your systems administrator to ensure you have proper authorizations to access this file.

GGC1810E  This error occurred during the re-key process for a full IC.
Explanation:  An error occurred during the re-key process for a full image copy.
User response:  Contact IBM Software Support.

GGC1811I  The sort of the REORG inline full image copy file was successful.
Explanation:  This message indicates that the REORG inline full image copy completed successfully.
User response:  No action is required.

GGC1812I  The sort of the re-keyed REORG inline full image copy file was successful.
Explanation:  This informational message indicates that the sort process for the re-keyed REORG inline full image copy completed successfully.
User response:  No action is required.

GGC1813I  The sort of the LOAD inline full image copy file was successful.
Explanation:  This message indicates that the LOAD inline full image copy file sorted successfully.
User response:  No action is required.

GGC1814I  The sort of the re-keyed LOAD inline full image copy file was successful.
Explanation:  This message indicates that the re-keyed LOAD inline full image copy file completed successfully.
User response:  No action is required.

GGC1815E  The catalog check on the most recent image copy failed.
Explanation:  The catalog check on the most recent image copy did not complete successfully.
User response:  No action is required.

GGC1821E  Error TCBTOKEN could not get token.
Explanation:  A system environment error occurred.
User response:  Contact IBM Software Support.

GGC1822E  Error IARV64 GETSTOR could not obtain storage.
Explanation:  An internal error occurred.
User response:  Contact IBM Software Support.

GGC1823E  Error IARV64 DETACH could not release storage.
Explanation:  An internal error occurred.
User response:  Contact IBM Software Support.

Explanation:  A system IO error was detected.
User response:  Recreate the source image copy.

GGC1900I  task_number Log range LRSN X'llrsn' to X'llrsn' is being processed.
Explanation:  Indicates the log range that is being processed by Db2 Change Accumulation Tool.
User response:  No action is required.

GGC1901I  task_number Log range RBA X'rba' to X'rba' is being processed.
Explanation:  Indicates the log range that is being processed by Db2 Change Accumulation Tool.
User response:  No action is required.
GGC2001E  Dynalloc function error DSN DSN reason= reason.
Explanation: A call to z/OS dynamic allocation failed.
User response: Contact IBM Software Support.

GGC2002E  Error process IDCAM output. Output follows: output
Explanation: IDCAMS system service request returned an error condition. The IDCAMS output and error messages follow.

GGC2003E  An internal error occurred in the Change Accum merge section.
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC2004I  The number of pages in the full image copy is inconsistent with the page size.
Explanation: The page size you specified is not consistent with the number of pages in the full image copy.
User response: Correct the page size specified and resubmit the job.

GGC2005E  The number of pages in the incr. image copy is inconsistent with the page size.
Explanation: The page size you specified is not consistent with the number of pages in the incremental image copy.
User response: Correct the number of pages specified and resubmit the job.

GGC2006E  An unexpected EOF was encountered on the sorted log records file.
Explanation: An unexpected end of file was encountered.
User response: Contact IBM Software Support.

GGC2007E  The selected full IC has a DBID/PSID mismatch to the DB2 catalog.
Explanation: The DBID/PSID for the selected full image copy does not match those in the Db2 catalog.
User response: Correct the DBID/PSID for the selected full image copy.

GGC2008I  Number of pages read from the full image copy file(s)=n.
Explanation: This informational message indicate the number of pages that were read from the full image copy files.
User response: No action is required.

GGC2009I  Number of pages read from the incremental image copy file(s)=n.
Explanation: This informational message indicates the number of pages that were read from the incremental image data set(s).
User response: No action is required.

GGC2010I  Number of records read from the log apply file=n.
Explanation: This informational message indicates the number of pages that were read from the log apply file.
User response: No action is required.

GGC2011I  Number of pages written to the new full image copy file(s)=n.
Explanation: This informational message indicates the number of pages that were written to the new full image copy data set(s).
User response: No action is required.

GGC2012I  Number of pages written to the table/index space file(s)=n.
Explanation: Indicates the number of pages written to the table/index space files.
User response: No action is required.

GGC2013I  Since no changes were found for this data set, it has been deleted: dsn
Explanation: This message appears during dynamic allocation of an output image copy data set and no output was written to that data set. It is similar to the other message that is reported when no output is written to an output image copy data set in JCL.
User response: No action is required.

GGC2014E  Error to start rebuild indexes thread.
Explanation: An attempt to start the rebuild indexes process returned an error.
GGC2015E  A open failure occurred on the VSAM I/O module.
Explanation: An open failure occurred for the VSAM I/O module.
User response: Refer to message GGC2023E for any dynamic allocation return codes and consult with your systems programmer. Refer to the z/OS MVS Programming: Authorized Assembler Service Guide (SA23-1371) for more information.

GGC2016E  A close failure occurred on the VSAM I/O module.
Explanation: A close failure occurred for the VSAM I/O module.
User response: Contact IBM Software Support.

GGC2017E  A write failure occurred on the VSAM I/O module.
Explanation: A write failure occurred for the VSAM I/O module.
User response: Contact IBM Software Support.

GGC2018E  An open for update failure occurred on the VSAM I/O module.
Explanation: An open failure occurred for the VSAM I/O module.
User response: Contact IBM Software Support.

GGC2019E  A random fetch failure occurred on the VSAM I/O module.
Explanation: A fetch failure occurred for the VSAM I/O module.
User response: Contact IBM Software Support.

GGC2020E  A random write failure occurred on the VSAM I/O module.
Explanation: A write failure occurred for the VSAM I/O module.
User response: Contact IBM Software Support.

GGC2021E  A random close failure occurred on the VSAM I/O module.
Explanation: A close failure occurred for the VSAM I/O module.
User response: Contact IBM Software Support.

GGC2022E  The underlying table/index space data set could not be found in MVS.
Explanation: The table/index space could not be found in MVS.
User response: No action is required.

GGC2023E  Dynamic allocation return code ="return_code".
Explanation: This diagnostic message indicates data set allocation failure.
User response: Diagnose the problem using the return code. Refer to IBM Knowledge Center for information about Db2 messages and codes.

GGC2024I  Object Database=database Space Name=space_name Partition=partition will have an image copy written anyway due to control card FORCE_COPIES.
Explanation: Change Accum will write an image copy for the object indicated in the message and override the WRITE_TO_VSAM control card, because the control card FORCE_COPIES has been specified with a value of Y.
User response: No action is required. If you do not want an image copy produced, specify FORCE_COPIES N.

GGC2025E  The SYSIN DD could not be allocated during WRITE_TO_VSAM processing.
Explanation: Db2 Change Accumulation Tool was unable to allocate the SYSIN DD during WRITE_TO_VSAM processing.
User response: No action is required.

GGC2026E  A CELL64 free request failed.
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC2027E  Rebuild indexes thread returned error.
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC2028E  Log apply process cancelled by request from task manager.
Explanation: An internal error occurred.
User response: Contact IBM Software Support.
GGC2029I  Space database.spacename Part # number will be written to DSN.

Explanation:  SWITCH_VCA keyword in effect, data set name dsn was generated to place WRITE_TO_VSAM result.

User response:  None.

GGC2030E  Data set organization is not VSAM DSN DSN.

Explanation:  A WRITE_TO_VSAM operation to a specified data set with the REUSE option could not be completed because the data set is not VSAM.

User response:  Check the data sets that were involved. Contact IBM Software Support.

GGC2031E  The LP image copy spanned tape could not be freed for a device switch.

Explanation:  The dynamic allocation of the image copy data set to the spanned tape failed because the tape could not be freed for a device switch.

User response:  Verify that the spanned tape is available for allocation.

GGC2032E  The initial LP image copy could not be allocated on the tape device.

Explanation:  The allocation of the image copy data set to the tape device failed.

User response:  Verify that the tape device is available for allocation.

GGC2033E  The LP image copy data set to be created on tape could not be opened.

Explanation:  The image copy data set that is to be created cannot be opened.

User response:  Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

GGC2034E  The LP image copy could not be allocated to the DASD device.

Explanation:  The dynamic allocation of the data set to the DASD device failed.

User response:  Verify that the device name is correct and that it is available for allocation.

GGC2035E  The LP image copy data set to be created on DASD could not be opened.

Explanation:  The image copy data set that is to be created cannot be opened.

User response:  Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

GGC2036E  The spanned LP image copy on tape could not be opened.

Explanation:  The image copy data set that is to be created cannot be opened.

User response:  Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

GGC2037E  The LB image copy spanned tape could not be freed for a device switch.

Explanation:  The dynamic allocation of the image copy data set to the spanned tape failed because the tape could not be freed for a device switch.

User response:  Verify that the spanned tape is available for allocation.

GGC2038E  The initial LB image copy could not be allocated onto the tape device.

Explanation:  The allocation of the image copy data set to the tape device failed.

User response:  Verify that the tape device is available for allocation.

GGC2039E  The LB image copy data set to be created on tape could not be opened.

Explanation:  The image copy data set that is to be created cannot be opened.

User response:  Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

GGC2040E  The LB image copy could not be allocated to the DASD device.

Explanation:  The dynamic allocation of the data set to the DASD device failed.

User response:  Verify that the device name is correct and that it is available for allocation.
GGC2041E The LB image copy data set to be created on DASD could not be opened.

Explanation: The image copy data set that is to be created cannot be opened.

User response: Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

GGC2042E The spanned LB image copy on tape could not be opened.

Explanation: The image copy data set that is to be created cannot be opened.

User response: Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

GGC2043E The RP image copy spanned tape could not be freed for a device switch.

Explanation: The dynamic allocation of the image copy data set to the spanned tape failed because the tape could not be freed for a device switch.

User response: Verify that the spanned tape is available for allocation.

---

GGC2044E The initial RP image copy could not be allocated onto the tape device.

Explanation: The allocation of the image copy data set to the tape device failed.

User response: Verify that the tape device is available for allocation.

---

GGC2045E The RP image copy data set to be created on tape could not be opened.

Explanation: The image copy data set that is to be created cannot be opened.

User response: Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

GGC2046E The RP image copy could not be allocated to the DASD device.

Explanation: The dynamic allocation of the data set to the DASD device failed.

User response: Verify that the device name is correct and that it is available for allocation.

---

GGC2047E The RP image copy data set to be created on DASD could not be opened.

Explanation: The image copy data set that is to be created cannot be opened.

User response: Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

GGC2048E The spanned RP image copy on tape could not be opened.

Explanation: The image copy data set that is to be created cannot be opened.

User response: Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

GGC2049E The RB image copy spanned tape could not be freed for a device switch.

Explanation: The dynamic allocation of the image copy data set to the spanned tape failed because the tape could not be freed for a device switch.

User response: Verify that the spanned tape is available for allocation.

---

GGC2050E The initial RB image copy could not be allocated onto the tape device.

Explanation: The allocation of the image copy data set to the tape device failed.

User response: Verify that the tape device is available for allocation.

---

GGC2051E The RB image copy data set to be created on tape could not be opened.

Explanation: The image copy data set that is to be created cannot be opened.

User response: Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

GGC2052E The RB image copy could not be allocated to the DASD device.

Explanation: The dynamic allocation of the data set to the DASD device failed.

User response: Verify that the device name is correct and that it is available for allocation.
The RB image copy data set to be created on DASD could not be opened.

**Explanation:** The image copy data set that is to be created cannot be opened.

**User response:** Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

The spanned RB image copy on tape could not be opened.

**Explanation:** The image copy data set that is to be created cannot be opened.

**User response:** Verify that the image copy data set you specified in your Db2 Change Accumulation Tool JCL is available for use and resubmit the Db2 Change Accumulation Tool job.

---

A volume written to and left on the system could not be found.

**Explanation:** When Change Accum finishes writing to a tape data set, the tape cartridge is not rewound and ejected. It is left on the tape drive in case another data set needs to be written afterwards. Once any one data set is written, it is closed and code then goes back and reads internal MVS control blocks to get specifics about that data set. If this subsequent code cannot find the data set just written and closed, the error occurs.

**User response:** Contact IBM Software Support.

---

Could not use XLAT_DSN <DSN> for <XLAT_TARGET>

**Explanation:** XLAT_VSAM was specified but XLAT_DSN <DSN> is not a VSAM data set.

**User response:** Specify the correct VSAM data set.

---

The following mini log data set could not be deallocated from OS/390:

**Explanation:** The mini log data set could not be deallocated from OS/390 and could therefore not be used in Db2 Change Accumulation Tool processing. This message is followed by GGC2060I which displays the name of the mini log data set that could not be allocated.

**User response:** Verify that the mini log data set is available for use.

---

Both mini log data sets for this space could not be opened.

**Explanation:** Db2 Change Accumulation Tool attempted to open both mini log data sets for the space but was unable to do so.

**User response:** Verify that the mini log data sets are available for use.
GGC2065I  Number of records read from the merged mini log file(s)=
Explanation:  The number of records displayed in this message were read from the merged mini log files.
User response:  No action is required.

GGC2066E  An unexpected EOF was encountered on a merged mini log records file.
Explanation:  Db2 Change Accumulation Tool encountered an unexpected EOF on a merged mini log record file.
User response:  No action is required.

GGC2067E  XLAT_DSN <DSN> will be used for <XLAT_TARGET>
Explanation:  XLAT_DSN <DSN> was not found and there is no XLAT_VSAM or XLAT_COPY specified.
           XLAT_TARGET will be determined by format of DSN.
           So if DSN conforms to Db2 space name format, new VSAM data set will be allocated,
           if not new sequential data set will be allocated.
User response:  No action is required.

GGC2068E  The XML sequence number update process failed.
Explanation:  Coordinating the internal XML sequence number during OBIDXLAT processing could not be completed.
User response:  Contact IBM Software Support.

GGC2069I  The space space resulted in the error condition.
Explanation:  Generic message that follows many other error messages.
User response:  No action is required.

GGC2070E  The alternative SSID XML sequence column update program failed.
Explanation:  Coordinating the internal XML sequence number during OBIDXLAT processing could not be completed.
User response:  Contact IBM Software Support.

GGC2071I  Allocation parms were not specified, data set cannot be allocated.
Explanation:  Data set cannot be allocated because allocation parms were not specified.
User response:  Specify the allocation parms.

GGC2080E  The target SSID for XML translation is missing in the control cards.
Explanation:  There is a missing parameter.
User response:  Correct the JCL and resubmit the job.

GGC2081I  The SPACE(...) set involved that the error was detected in was spacesetnumber
Explanation:  Generic message that follows many other messages.
User response:  No action is required.

GGC2082E  The XML target SSID/DBname/Tsname control cards are missing.
Explanation:  Missing control cards in the Space(...) set.
User response:  No action is required.

GGC2083E  The XML target SSID/DBname/Tsname control cards are invalid.
Explanation:  Syntax error in control cards.
User response:  Correct the syntax.

GGC2085E  No references to subsystem could not be found in the JES SSCT.
Explanation:  The specified Db2 SSID is not defined to z/OS.
User response:  Ensure that the name is correct or contact IBM Software Support.

GGC2086E  The sorted log file could not be allocated.
Explanation:  An allocation error has occurred.
User response:  Verify that the proper authorization is set.

GGC2087E  The sorted log file could not be opened.
Explanation:  After allocating, could not open.
User response:  Ensure proper authorization exists, or contact IBM Software Support.

GGC2088E  A log record page number exceeded the extent size boundary.
Explanation:  A Db2 internal error occurred. The page number encoded into the log record points beyond
           the number of allowable pages for a Db2 extent.
User response:  Send the dump and any table space / table creation details to IBM Software Support.

Chapter 10. Troubleshooting  259
The SOR T program doesn't support the use of tape devices for sort work datasets.

Explanation: The SOR T program installed on the machine does not support the use of tape devices for sort work data sets.

User response: Change the type of device for sort work data sets.

An invalid return code was detected from the SOR T program.

Explanation: This attempt to SOR T returned an error.

User response: Verify SOR T program error messages. Contact IBM Software Support.

The following objects will not be added to the SYSCOPY DB2 table because a UNIFIED check failed, updates could not be found either in incremental image copies or the log(s), OBID translation took place on the image copy, or an error triggering a skip condition to be placed on the object:

Explanation: The objects listed in the message will not be added to the SYSCOPY Db2 table. A UNIFIED check failed or updates could not be located.

User response: No action is required.

The following data set information was added to the SYSCOPY DB2 table:

Explanation: This message indicates the data set information that was added to the SYSCOPY Db2 table.

User response: No action is required.

The following data set information would have been added to the SYSCOPY DB2 table but was not because of control card NO_SYSCOPY_ROW:

Explanation: You specified the NO_SYSCOPY Row in your Db2 Change Accumulation Tool JCL so the data set information that would have otherwise been added to the SYSCOPY Db2 table was not added.

User response: No action is required.

The following tape data set could not be cataloged:

Explanation: Normally, JCL end step disposition processing catalogs a data set, if desired. This message displays if Db2 Change Accumulation Tool has made a catalog attempt against a tape data set that has failed due to control card and dynamic allocation processing.

User response: No action is required.
GGC2110I  The following tape data set was cataloged: Unit (X’device_code’) DSN: dsn Sequence: label#

Explanation: When the catalog attempt against a tape data set is successful, this message is displayed. The unit is the actual 8 character device on which the data set was created. The device_code is a 4-byte hexadecimal number that represents the internal MVS device designation. The dsn is the data set name cataloged. The label# is the file sequence number of the data set on the stacked tape. The volser are reported by the tape management facility elsewhere in the job output.

User response: No action is required.

GGC2200I  The following data set information was added to the GGC mini log table:

Explanation: This informational message indicates the data set information that was added to the Db2 Change Accumulation Tool mini log table. This message is used in conjunction with GGC2201I, GGC2202I, GGC2203I, and GGC2204I.

User response: No action is required.

GGC2201I  Database database Table Space table_space Partition partition

Explanation: The content of this message is used in conjunction with message GGC2200I. The database, table space, and partition indicated in this message correspond to those of the data set added to the Db2 Change Accumulation Tool mini log table.

User response: No action is required.

GGC2202I  DSN:

Explanation: The content of this message is used in conjunction with message GGC2200I. The DSN indicated in this message correspond to those of the data set added to the Db2 Change Accumulation Tool mini log table.

User response: No action is required.

GGC2203I  Begin LRSN/RBA: X" End LRSN/RBA: X"

Explanation: The content of this message is used in conjunction with message GGC2200I. The begin LRSN/RBA indicated in this message corresponds to that of the data set added to the Db2 Change Accumulation Tool mini log table.

User response: No action is required.

GGC2204I  ()()

Explanation: The content of this message is used in conjunction with message GGC2200I. The end LRSN/RBA indicated in this message corresponds to that of the data set added to the Db2 Change Accumulation Tool mini log table.

User response: No action is required.

GGC2205E  The ENQ prior to Insert activity on the Minilog Control Table failed.

Explanation: Another Db2 Change Accumulation Tool job is running in the mini log control table update phase that has exclusive control of the minilog control table. The system could not serialize this action and aborted. No updates took place.

User response: Ensure that no other mini log create Db2 Change Accumulation Tool jobs are running and resubmit the job.

GGC2206I  The following data set information was updated to the GGC mini log table:

Explanation: This message indicates the data set information that was added to the Db2 Change Accumulation Tool mini log table.

User response: No action is required.

GGC2300E  An internal error occurred unloading a mini log data set.

Explanation: An internal error occurred.

User response: Contact IBM Software Support.

GGC2301E  The following mini log data set could not be deallocated from OS/390:

Explanation: The specified mini log data set could not be deallocated from OS/390.

User response: Verify that you have specified the correct mini log data set name generation string.

GGC2302E  The following mini log data set could not be opened:

Explanation: The specified mini log data set could not be opened.

User response: Verify that the file is not in use and that you have the proper authority to access this file.

GGC2303E  The following mini log data set could not be allocated:

Explanation: The specified mini log data set could not be allocated.

User response: Verify that the file is not in use and
that you have the proper authority to access this file.

**GGC2304I**  
*dsn*  
**Explanation:** Indicates the mini log DSN. This message is issued in conjunction with message GGC2303I.  
**User response:** No action is required.

**GGC2305I**  
Dynamic allocation return code = 'return code'  
**Explanation:** This diagnostic message indicates data set allocation failure.  

**GGC2310I**  
The mini log file: *mini_log_file* has been processed.  
**Explanation:** This message indicates the mini log file that has been processed.  
**User response:** No action is required.

**GGC2311I**  
GCG will attempt to use the MINI_LOG_DSN_2 data set instead.  
**Explanation:** Db2 Change Accumulation Tool was unable to use the MINI_LOG_DSN_1 data set specified in your JCL so it will attempt to use the MINI_LOG_DSN_2 data set specified in your data set instead.  
**User response:** No action is required.

**GGC2313E**  
Mini log data set *dsn* could not be appended because a gap is found for the object in the mini log control table.  
**Explanation:** There is a gap for the object in the mini log chain in the mini log control table. For this reason, the mini log data set indicated in the message could not be appended.  
**User response:** To resolve this issue, either remove the mini log DSN from the mini log control table and MVS catalog or specify a new DSN for the mini log.

**GGC2401E**  
The space *space* PART *part* has an unknown space status.  
**Explanation:** This message ensures that the indicated space is to be stopped before proceeding with the WRITE_TO_VSAM process. Db2 Change Accumulation Tool checks the space with a call similar to a 'display db(dbname) spacename(sname) part(0)' to verify that the space is in 'stop' status. This message displays when the space comes back with a status not equal to RO, STOP, RW, or UT.  
**User response:** Stop the indicated space before attempting to proceed with the WRITE_TO_VSAM process.

**GGC2402E**  
The stop status check for space *space* PART *part* timed out.  
**Explanation:** This message is output when Db2 Change Accumulation Tool tries to start and it has to ensure that when doing WRITE_TO_VSAM processing that the spaces are indeed stopped. The stop step that is generated (prior to Db2 Change Accumulation Tool) to do this sends commands to Db2 to stop the data sets, but it does not wait for the spaces to actually stop. If an in-flight URID is processing against the object and the stop is done, the space changes to 'STOP' or stop pending until the URID finishes. It may also take Db2 some time to flush buffers. In either case, Db2 Change Accumulation Tool does a check on the spaces before doing any real processing. If any of the spaces do not come back 'stop,' it waits a few seconds and checks again. After a few checks like this, it aborts, producing this message.  
**User response:** Diagnose why the space will not stop.

**GGC2500E**  
Fetching SYSIBM.SYSLOGRANGE data produced an error  
**Explanation:** Change Accum encountered an error when attempting to fetch SYSIBM.SYSLOGRANGE data.  
**User response:** No action is required. The report utility's output will be output after this message.

**GGC2501E**  
REPORT utility text follows: *text*  
**Explanation:** This message is the header line for the REPORT utility output that follows on the next line.  
**User response:** No action is required.

**GGC2502I**  
Skipping SYSIBM.SYSLOGRNX processing.  
**Explanation:** This informational messages indicates that Db2 Change Accumulation Tool is not processing SYSIBM.SYSLOGRNX because NO_SYSLOGRNX was specified.  
**User response:** No action is required.

**GGC2503I**  
Fetching SYSIBM.SYSLOGRANGE data by SQL produced an error. Trying to use REPORT utility.  
**Explanation:** Db2 Change Accumulation Tool could not fetch object log ranges from the SYSIBM.SYSLOGRANGE directory table. The
SYSIBM.SYSLOGRANGE table requires Db2 V10 NFM or above. Verify that you have the required Db2 version, so the REPORT utility can be used.

**User response:** It is recommended that you upgrade to Db2 V10 NFM or above. Doing so can improve performance when running jobs with many objects and log range rows.

**GGC2504E** Control file values could not be read. Check for a user indicator mismatch.

**Explanation:** Db2 Change Accumulation Tool could not read the control file values.

**User response:** Check for a user indicator mismatch.

**GGC2508W** Trying to use REPORT utility.

**Explanation:** Db2 Change Accumulation Tool is attempting to use the REPORT utility.

**User response:** No action is required.

**GGC2600E** The USER_INDICATOR parameter was specified, but no value was found with it.

**Explanation:** No value has been specified for the USER_INDICATOR parameter.

**User response:** Specify a valid parameter for the USER_INDICATOR parameter.

**GGC2601E** The USER_INDICATOR keyword has already been coded.

**Explanation:** More than one USER_INDICATOR keyword has been specified.

**User response:** Remove the extra USER_INDICATOR keyword.

**GGC2602E** The USER_INDICATOR parameter specified is invalid.

**Explanation:** The value specified for the USER_INDICATOR parameter is not valid.

**User response:** Specify a valid value for USER_INDICATOR.

**GGC2603E** The INCREMENTAL parameter was specified, but no value was found with it.

**Explanation:** Your JCL includes the INCREMENTAL parameter but no value is specified with it.

**User response:** Specify a valid value for the INCREMENTAL parameter.

**GGC2604E** The INCREMENTAL keyword has already been coded.

**Explanation:** The INCREMENTAL keyword has been coded multiple times in the Change Accum syntax.

**User response:** Remove the extra keyword and resubmit the JCL.

**GGC2605E** The INCREMENTAL parameter specified is invalid.

**Explanation:** The INCREMENTAL parameter specification in your Change Accum job is not valid.

**User response:** Specify a valid value for the INCREMENTAL parameter.

**GGC2606E** Control file values could not be read. Check for a user indicator mismatch.

**Explanation:** The control file values could not be read.

**User response:** Check for a user indicator mismatch.

**GGC2607E** The DB2 subsystem ID was not found in the control file.

**Explanation:** The control file does not have a Db2 subsystem ID.

**User response:** Specify a Db2 subsystem ID in your control file.

**GGC2608E** The DB2 subsystem member *member* was not found in the control file.

**Explanation:** The Db2 subsystem member was not found in the control file.

**User response:** Verify that the correct Db2 subsystem member is specified in the control file.

**GGC2609I** The LOG_COPY_PREFERENCE parameter was specified, but no value was found with it.

**Explanation:** Your JCL includes the LOG_COPY_PREFERENCE parameter but no value is specified with it.

**User response:** Specify a valid value for the LOG_COPY_PREFERENCE parameter.

**GGC2610E** The LOG_COPY_PREFERENCE keyword has already been coded.

**Explanation:** The LOG_COPY_PREFERENCE keyword has been coded multiple times in the Change Accum syntax.

**User response:** Remove the extra keyword and resubmit the JCL.
The LOG_COPY_PREFERENCE parameter specified is invalid.

Explanation: The LOG_COPY_PREFERENCE parameter specification in your Change Accum job is not valid.

User response: Specify a valid value for the LOG_COPY_PREFERENCE parameter.

The IMAGE_COPY_PREFERENCE parameter was specified, but no value was found with it.

Explanation: Your JCL includes the IMAGE_COPY_PREFERENCE parameter but no value is specified with it.

User response: Specify a valid value for the IMAGE_COPY_PREFERENCE parameter.

The IMAGE_COPY_PREFERENCE keyword has already been coded.

Explanation: The IMAGE_COPY_PREFERENCE keyword has been coded multiple times in the Change Accum syntax.

User response: Remove the extra keyword and resubmit the JCL.

The IMAGE_COPY_PREFERENCE parameter specified is invalid.

Explanation: The IMAGE_COPY_PREFERENCE parameter specification in your Change Accum job is not valid.

User response: Specify a valid value for the IMAGE_COPY_PREFERENCE parameter.

LOCAL_SITE, RECOVERY_SITE, and IMAGE_COPY_PREFERENCE are mutually exclusive.

Explanation: Your Change Accum syntax includes more than one of the following parameters: LOCAL_SITE, RECOVERY_SITE, or IMAGE_COPY_PREFERENCE. These parameters are mutually exclusive and only one can be defined.

User response: Correct your Db2 Change Accumulation Tool syntax.

Invalid syntax after the IC_LP control card. Must be IC_LP (...).

Explanation: The syntax that follows the IC_LP control card contains an error.

User response: Verify that the correct syntax follows the IC_LP control card. The parameters that accompany the IC_LP control card must be enclosed in parenthesis ()

Invalid syntax after the IC_RB control card. Must be IC_RB (...).

Explanation: The syntax that follows the IC_RB control card contains an error.

User response: Verify that the correct syntax follows the IC_RB control card. The parameters that accompany the IC_RB control card must be enclosed in parenthesis ()

The IC_DSN parameter was specified, but is either empty or too long.

Explanation: You specified the IC_DSN parameter but the values specified with it is either missing or too long.

User response: Specify a valid value with the IC_DSN parameter.
parameter. Ensure that the data set name value you specify is enclosed in quotes.

GGC2627E The IC_CATALOG keyword has already been coded.

Explanation: You specified the IC_CATALOG keyword more than once for the IC_** group (where ** is LP, LB, RP or RB).

User response: Correct the JCL and resubmit the job.

GGC2633E The IC_SPACE parameter specified is invalid.

Explanation: The IC_SPACE parameter syntax contains an error.

User response: Verify that you have properly defined the IC_SPACE parameter and corresponding value.

GGC2634E The IC_MGMT_CLASS parameter was specified, but no value was found with it.

Explanation: You specified the IC_MGMT_CLASS parameter but did not specify a corresponding value. The IC_MGMT_CLASS parameter requires that you specify a management class.

User response: Specify a management class with the IC_MGMT_CLASS parameter or remove the optional IC_MGMT_CLASS parameter.

GGC2635E The IC_MGMT_CLASS keyword has already been coded.

Explanation: You specified the IC_MGMT_CLASS keyword more than once for the IC_** group (where ** is LP, LB, RP or RB).

User response: Correct the JCL and resubmit the job.

GGC2636E The IC_MGMT_CLASS parameter specified is invalid.

Explanation: The IC_MGMT_CLASS parameter syntax contains an error.

User response: Verify that you have properly defined the IC_MGMT_CLASS parameter and corresponding value.

GGC2637E The IC_DATA_CLASS parameter was specified, but no value was found with it.

Explanation: You specified the IC_DATA_CLASS parameter but did not specify a corresponding value. The IC_DATA_CLASS parameter requires that you specify a data class.

User response: Specify a data class with the IC_DATA_CLASS parameter or remove the optional IC_DATA_CLASS parameter.

GGC2638E The IC_DATA_CLASS keyword has already been coded.

Explanation: You specified the IC_DATA_CLASS keyword more than once for the IC_** group (where ** is LP, LB, RP or RB).
User response: Correct the JCL and resubmit the job.

GCG2639E  The IC_DATA_CLASS parameter specified is invalid.
Explanation: The IC_DATA_CLASS parameter syntax contains an error.
User response: Verify that you have properly defined the IC_DATA_CLASS parameter and corresponding value.

GCG2640E  The IC_STOR_CLASS parameter was specified, but no value was found with it.
Explanation: You specified the IC_STOR_CLASS parameter but did not specify a corresponding value. The IC_STOR_CLASS parameter requires that you specify a storage class.
User response: Specify a storage class with the IC_STOR_CLASS parameter or remove the optional IC_STOR_CLASS parameter.

GCG2641E  The IC_STOR_CLASS keyword has already been coded.
Explanation: You specified the IC_STOR_CLASS keyword more than once for the IC_** group (where ** is LP, LB, RP or RB).
User response: Correct the JCL and resubmit the job.

GCG2642E  The IC_STOR_CLASS parameter specified is invalid.
Explanation: The IC_DATA_CLASS parameter syntax contains an error.
User response: Verify that you have properly defined the IC_STOR_CLASS parameter and corresponding value.

GCG2643E  The IC_EXP_DATE parameter was specified, but no value was found with it.
Explanation: You specified the IC_EXP_DATE parameter but did not specify a corresponding value. The IC_EXP_DATE parameter requires that you specify an expiration date in the format YYYYDDD.
User response: Specify an expiration date with the IC_EXP_DATE parameter or remove the optional IC_EXP_DATE parameter.

GCG2644E  The IC_EXP_DATE keyword has already been coded.
Explanation: You specified the IC_EXP_DATE keyword more than once for the IC_** group (where ** is LP, LB, RP or RB).
User response: Correct the JCL and resubmit the job.

GCG2645E  The IC_EXP_DATE parameter specified is invalid.
Explanation: The IC_EXP_DATE parameter syntax contains an error.
User response: Verify that you have properly defined the IC_EXP_DATE parameter and corresponding value.

GCG2646E  The IC_RETPD parameter was specified, but no value was found with it.
Explanation: You specified the IC_RETPD parameter but did not specify a corresponding value. The IC_RETPD parameter requires that you specify a 4-digit retention period.
User response: Specify a retention period (4-digit) with the IC_RETPD parameter or remove the optional IC_RETPD parameter.

GCG2647E  The IC_RETPD keyword has already been coded.
Explanation: You specified the IC_RETPD keyword more than once for the IC_** group (where ** is LP, LB, RP or RB).
User response: Correct the JCL and resubmit the job.

GCG2648E  The IC_RETPD parameter specified is invalid.
Explanation: The IC_RETPD parameter syntax contains an error.
User response: Verify that you have properly defined the IC_RETPD parameter and corresponding value.

GCG2649E  DASD and tape allocation parameters cannot be specified together.
Explanation: You specified both DASD and TAPE allocation parameters.
User response: Specify only DASD or TAPE allocation parameters but not both.

GCG2650E  Five or more errors have been detected in the control cards.
Explanation: More than five errors have been identified in the control cards and Change Accum processing cannot proceed.
User response: Verify the syntax of your Change Accum JCL and respecify as needed to correct syntax errors.
### GGC2651E
The Restore Before parameter was specified but no value was found with it.

**Explanation:** You specified the `RESTORE_BEFORE` parameter but did not specify a corresponding value.

**User response:** Specify a byte string with the `RESTORE_BEFORE` parameter. Enclose the bytes string in single quotes.

### GGC2652E
Syntax error around Restore Before RBA value. Form is X”<6 byte hex value>”.

**Explanation:** The `RESTORE_BEFORE` parameter syntax contains an error.

**User response:** Verify that you have properly defined the `RESTORE_BEFORE` parameter and corresponding value.

### GGC2653E
The Restore Before RBA value contains an invalid hexadecimal value.

**Explanation:** The hexadecimal value you specified with the `RESTORE_BEFORE` parameter is not valid.

**User response:** Verify that you have properly defined a 6-byte hexadecimal value for the `RESTORE_BEFORE` parameter.

### GGC2654E
The Restore Before RBA value cannot be 0.

**Explanation:** You specified a value of 0 for the `RESTORE_BEFORE` parameter. This is not valid.

**User response:** Specify a 6-byte hexadecimal value for the desired RBA or LRSN or remove the optional `RESTORE_BEFORE` parameter.

### GGC2655E
The Restore Before RBA/LRSN value was already specified.

**Explanation:** You specified the `RESTORE_BEFORE` parameter more than once.

**User response:** Correct the JCL and resubmit the job.

### GGC2656E
Invalid `TO_QUIESCE(#nnn)` control card syntax.

**Explanation:** The `TO_QUIESCE` syntax contains an error.

**User response:** Verify that you have properly defined the `TO_QUIESCE(#nnn)` parameter.

### GGC2657E
The `TO_QUIESCE` keyword has already been coded for this group.

**Explanation:** The `TO_QUIESCE` keyword was coded more than once for the group.

**User response:** Remove the extra `TO_QUIESCE` keywords.

### GGC2658E
The `UNIFIED` keyword has already been coded for this group.

**Explanation:** The `UNIFIED` keyword has already been coded for this group.

**User response:** Remove the extra `UNIFIED` keywords.

### GGC2659E
The `UNIFIED` keyword has already been coded for this space group.

**Explanation:** You specified the `UNIFIED` keyword more than once for the SPACE group.

**User response:** Remove the extra `UNIFIED` keywords from the SPACE group.

### GGC2660E
The `NO_SYSLGNRX` keyword has already been coded for this run.

**Explanation:** The `NO_SYSLGNRX` keyword was specified but the job did not specify to write mini logs so it was ignored.

**User response:** Remove the extra `NO_SYSLGNRX` keywords.

### GGC2661E
Mini log particulars cannot be specified at both the GROUP and SPACE levels.

**Explanation:** Mini log control cards are valid for specification either at the GROUP or the SPACE level, not both.

**User response:** Specify mini log parameters either at the GROUP or SPACE level but not both.

### GGC2662E
The `NO_MINILOG_CHECKPOINTS` keyword is ignored when not writing minilogs.

**Explanation:** The `NO_MINILOG_CHECKPOINTS` keyword was specified but the job did not specify to write mini logs so it was ignored.

**User response:** No action is required.

### GGC2663E
The `USE_ABOVE_THE_BAR` parameter was specified, but no value was found with it.

**Explanation:** You specified the `USE_ABOVE_THE_BAR` parameter but did not include a primary segments allocation, secondary segments allocation, and maximum secondary allocation values.
The primary segments allocation, secondary segments allocation, and maximum secondary allocation values must be 1-4 digits and contained within single quotes and be separated by commas. Specify the appropriate segment allocations with the USE_THE_ABOVE_THE_BAR parameter.

**GGC2664E** The USE_ABOVE_THE_BAR keyword has already been coded.

**Explanation:** The USE_ABOVE_THE_BAR keyword should only be specified once.

**User response:** Check your syntax and correct.

**GGC2665E** The USE_ABOVE_THE_BAR parameter specified is invalid.

**Explanation:** The USE_ABOVE_THE_BAR parameter syntax is invalid. The primary segments allocation, secondary segments allocation, and maximum secondary allocation values must be 1-4 digits and contained within single quotes and be separated by commas.

**User response:** Check your syntax and correct.

**GGC2666E** Use of the USE_ABOVE_THE_BAR keyword requires z/OS V1.5 or above.

**Explanation:** Your z/OS version is not 1.5 or above, z/OS V1/5 or above is required for you to use the USE_ABOVE_THE_BAR keyword.

**User response:** Remove the USE_ABOVE_THE_BAR keyword from your syntax.

**GGC2667E** The MINILOG_SHARELEVEL was specified, but no value was found with it.

**Explanation:** You specified the MINILOG_SHARELEVEL parameter but did not specify a corresponding value.

**User response:** Enter a valid value following the MINILOG_SHARELEVEL keyword or remove the keyword. Valid values are REFERENCE and CHANGE.

**GGC2668E** The MINILOG_SHARELEVEL keyword has already been coded.

**Explanation:** You specified the MINILOG_SHARELEVEL keyword more than once.

**User response:** Remove all extra occurrences of the MINILOG_SHARELEVEL keyword.

**GGC2669E** The MINILOG_SHARELEVEL parameter specified is invalid.

**Explanation:** The MINILOG_SHARELEVEL parameter specification is not valid.

**User response:** The MINILOG_SHARELEVEL parameter accepts either REFERENCE or CHANGE as valid values. Correct your JCL and resubmit.

**GGC2670I** The MINILOG_SHARELEVEL keyword is ignored when not producing mini logs.

**Explanation:** You included the MINILOG_SHARELEVEL keyword in your JCL indicating the type of SHARELEVEL for mini logs but did not specify the production of producing mini logs. The MINILOG_SHARELEVEL keyword is therefore ignored.

**User response:** No action is required.

**GGC2671E** The REPAIR_RECOVER_PENDING keyword has already been coded.

**Explanation:** You specified the REPAIR_RECOVER_PENDING keyword more than once.

**User response:** Correct the JCL and resubmit the job.

**GGC2672W** The REPAIR_RECOVER_PENDING keyword is ignored when only writing to copies.

**Explanation:** The REPAIR_RECOVER_PENDING keyword is specified but this parameter is ignored when writing to copies.

**User response:** REPAIR_RECOVER_PENDING is ignored when writing to copies so the REPAIR_RECOVER_PENDING control card can be removed.

**GGC2673E** The OBIDXLAT keyword group has already been coded.

**Explanation:** You specified the OBIDXLAT keyword more than once.

**User response:** Correct the JCL and resubmit the job.

**GGC2675E** Invalid OBIDXLAT(...) keyword syntax.

**Explanation:** The OBIDXLAT syntax you specified is not valid.

**User response:** Correct the OBIDXLAT syntax and resubmit the job.
The XLAT_IN_DSN keyword has already been coded.

**Explanation:** You specified the XLAT_IN_DSN keyword more than once.

**User response:** Correct the JCL and resubmit the job.

---

Invalid XLAT_IN_DSN syntax.

**Explanation:** The XLAT_IN_DSN syntax you specified is not valid.

**User response:** Correct the XLAT_IN_DSN syntax and resubmit the job.

---

The XLAT_IN_DSN parameter was specified, but no value was found with it.

**Explanation:** The XLAT_IN_DSN parameter requires that a dsn value be specified with it.

**User response:** Specify a dsn with the XLAT_IN_DSN parameter. Enclose the dsn value in single quotes.

---

Invalid OBID syntax.

**Explanation:** The OBID syntax you specified is not valid.

**User response:** OBID syntax is of the form OBID 'obid,obid'.

**Note:** When specifying OBID pairs, all pairs should be space separated and the source ID is listed first with the target ID listed second. Each pair should be defined on a new line. Define multiple OBID pairs as necessary.

---

Invalid PSID syntax.

**Explanation:** The PSID syntax you specified is not valid.

**User response:** Correct the PSID syntax and resubmit the job.

---

The PSID keyword has already been coded.

**Explanation:** The PSID keyword has already been coded.

**User response:** Correct the JCL and resubmit the job.

---

The DBID keyword has already been coded.

**Explanation:** The DBID keyword group has already been coded.

**User response:** Correct the JCL and resubmit the job.

---

Invalid DBID syntax.

**Explanation:** The DBID syntax you specified is not valid.

**User response:** Correct the DBID syntax and resubmit the job.

---

The DBID parameter was specified, but no value was found with it.

**Explanation:** The DBID parameter requires that a source and target DBID pair be specified with it.

**User response:** Correct the DBID syntax and resubmit the job.

---

The DBID parameter was specified, but one of the subparms was out of range.

**Explanation:** The DBID parameter you specified but one of the sub parameters defined with it was out of range.

**User response:** Verify that you specified the correct DBID pair.

---

The PSID parameter was specified, but no value was found with it.

**Explanation:** The PSID parameter requires that a source and target PSID pair be specified with it.

**User response:** Correct the PSID syntax and resubmit the job.

---

The PSID parameter was specified, but one of the subparms was out of range.

**Explanation:** The PSID parameter you specified but one of the sub parameters defined with it was out of range.

**User response:** Verify that you specified the correct PSID pair.

---

The PSID parameter was specified, but no value was found with it.

**Explanation:** The PSID parameter requires that a source and target PSID pair be specified with it.

**User response:** Correct the PSID syntax and resubmit the job.

---

The DBID parameter was specified, but no value was found with it.

**Explanation:** The DBID parameter requires that a source and target DBID pair be specified with it.

**User response:** Correct the DBID syntax and resubmit the job.
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
<th>Explanation</th>
<th>User Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC2699E</td>
<td>The PSID parameter was specified, but one of the subparms was out of range.</td>
<td>The PSID subparameter was out of range.</td>
<td>Verify that you specified the correct PSID pair.</td>
</tr>
<tr>
<td>GGC2700E</td>
<td>A needed incremental image copy could not be allocated.</td>
<td>A required incremental image copy could not be allocated.</td>
<td>Verify that the image copy is available.</td>
</tr>
<tr>
<td>GGC2701E</td>
<td>A needed incremental image copy could not be opened.</td>
<td>Db2 Change Accumulation Tool processing could not proceed because an incremental image copy could not be opened.</td>
<td>Verify that all necessary incremental image copies are available for use.</td>
</tr>
<tr>
<td>GGC2703I</td>
<td>Image copy name=image_copy_name RBA='rba'.</td>
<td>Indicates the image copy name an RBA.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC2704E</td>
<td>The catalog check on the most recent image copy failed.</td>
<td>The catalog check failed for the most recent image copy.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC2705E</td>
<td>An internal error occurred during input incremental tape stacking processing.</td>
<td>An internal error occurred.</td>
<td>Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC2706I</td>
<td>Change Accum will process the following incremental image copy file(s).</td>
<td>Db2 Change Accumulation Tool will process the incremental image copy file(s) listed in this message.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC2707I</td>
<td>For table space: table_space PART part</td>
<td>This message indicates the table space and partition related to other Db2 Change Accumulation Tool messages that have been issued.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC2800I</td>
<td>The log record sort record write service program could not be started.</td>
<td>An internal error has occurred.</td>
<td>Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC2801E</td>
<td>task_number A log record read service program could not be started.</td>
<td>An internal error has occurred.</td>
<td>Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC2802E</td>
<td>task_number The writer service returned an error, RC=rc.</td>
<td>An internal error occurred during log reading on db2_ssid.</td>
<td>Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC2803E</td>
<td>task_number db2_ssid The reader service returned an error, RC=rc.</td>
<td>An internal error occurred during log reading on db2_ssid.</td>
<td>Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC2804E</td>
<td>An unexpected error occurred while trying to read the bootstrap data set.</td>
<td>An unexpected error was encountered.</td>
<td>Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC2805E</td>
<td>While trying to read zparm_name information, program finished with code hexadecimal_return_code.</td>
<td>This message is displayed if an unexpected error occurred. The message displays the error return code when the program is trying to provide information about Db2 ZPARM fields.</td>
<td>Description of error codes:</td>
</tr>
</tbody>
</table>
00008: Open for Db2 libraries failed.

00108: One of the Db2 LOADLIBs in the concatenation is blank. Check control file setup; if everything is correct, contact IBM Software support.

00120: One of the Db2 LOADLIBs in the concatenation list could not be concatenated. Check control file setup; if everything is correct, contact IBM Software support.

00124: The Db2 LOADLIBs in the concatenation list could not be concatenated. Check control file setup; if everything is correct, contact IBM Software support.

User response: Check control file setup if the description of the error code requires it; if not, or if the control file is correct, contact IBM Software Support.

GGC2806I  The log apply process will begin at RBA='rba'.

Explanation: The log apply process will start at the RBA indicated in the message.

User response: No action is required.

GGC2807I  The log apply process will begin at LRSN: X'1rsn'.

Explanation: The message indicates the LRSN value at which the log apply process will begin.

User response: No action is required.

GGC2808E  The Db2 command processor responded with a bad return code.

Explanation: An error was encountered when attempting to execute a Db2 command.

User response: Contact IBM Software Support.

GGC2809I  The SPACE(...) set involved that the error was detected in was mmmm.

Explanation: Indicates the SPACE set involved in the error.

User response: No action is required.

GGC2810I  Consistency value = X'nnnnnnnnnnnn'

Explanation: This message displays if a problem occurs with the UNIFIED or UNIFIED_WARNING control cards. The message displays the consistency value taken from the first object in the group.

User response: The values shown in GGC2810I and GGC2811I can be compared for diagnostic purposes. The value shown in GGC2810I is that for the first object in the group while the value shown in GGC2811I is the value for any object that does not match it. For example, if there are 10 objects in the group and three don't match the first, then one GGC2810I message will display with three GGC2811I messages (for each group).

GGC2811I  Object's derived value = X'nnnnnnnnnnnn'

Explanation: This message displays if a problem occurs with the UNIFIED or UNIFIED_WARNING control cards. The message displays the object's derived value for the first object in a group. This message displays any object that does not match the first object in the group (identified in GGC2810I).

User response: The values shown in GGC2810I and GGC2811I can be compared for diagnostic purposes. The value shown in GGC2810I is that for the first object in the group while the value shown in GGC2811I is the value for any object that does not match it. For example, if there are 10 objects in the group and three don't match the first, then one GGC2810I message will display with three GGC2811I messages (for each group).

GCG2812E  A mismatch between passed Zparm information and the JES SSCT was found.

Explanation: This is an internal error indicating that the Zparm array that is being passed to Db2 Change Accumulation Tool is inconsistent with the subsystem list found inside MVS data structures.

User response: Contact IBM Software Support.

GCG2813I  The log reader process will launch a total of mmmm tasks.

Explanation: This message indicates the total number of tasks that will be launched.

User response: No action is required.

GCG2814I  The log reader will launch total of 1 task per member.

Explanation: Indicates that processing of the log reader will launch a total of one task per member since PARALELL has been set to 0.

User response: No action is required.

GCG2815I  The log reader process will start with PARALLEL tasks = mmmm.

Explanation: The log reader process will start with the indicated maximum number of tasks.

User response: No action is required.
GGC2816I  The log reader task finished.
Explanation: Indicates that processing of the log reader finished.
User response: No action is required.

GGC2817E  The log reader task init failed. RC="return_code"
Explanation: The log apply processing failed to initialize a task necessary for reading logs. The reason code is specified in the error message.
User response: Contact IBM Software Support.

GGC2818I  Checkpoint was created for db2_subsystem_name
Explanation: Checkpoint was created for the specified Db2 subsystem.
User response: No action is required.

GGC2900I  The sorted log record file could not be opened.
Explanation: The sorted log record file could not be opened.
User response: No action is required.

GGC2901I  The mini log data set data_set could not be allocated.
Explanation: The mini log data set could not be allocated.
User response: No action is required.

GGC2902I  The mini log data set dsn could not be opened.
Explanation: Db2 Change Accumulation Tool was unable to open the mini log data set indicated in the message.
User response: No action is required.

GGC2903I  Dynamic allocation return code=rc
Explanation: Dynamic allocation failed with the return code listed in the message.
User response: No action is required.

GGC2904I  An unexpected EOF was encountered on the sorted log record file.
Explanation: An unexpected EOF was encountered on the sorted log record file.
User response: No action is required.

GGC2905I  The mini log dataset dsn could not be located for resort purpose.
Explanation: The data set in the control cards could not be found in the MVS catalog.
User response: Ensure the data set is correct.

GGC2906I  The mini log dataset dsn could not be renamed for resort purpose.
Explanation: An error occurred while attempting to append minilog records to an existing minilog dataset.
User response: Ensure proper authority on the minilog data sets.

GGC2907I  The resort of the applicable space level minilog was successful.
Explanation: The resort was successful.
User response: No action is required.

GGC2908I  An invalid return code was detected from the SORST program (mini log resort).
Explanation: Internal error.
User response: Contact IBM Software Support.

GGC3000E  The space database.table_space PART has an unknown space status.
Explanation: The status of the space indicated in the message is not known.
User response: When Db2 Change Accumulation Tool checks the space to see if it is in recover pending, a status code unknown to Db2 Change Accumulation Tool was found. Contact IBM Software Support.

GGC3001E  The stop status check for space database.table_space PART partition timed out.
Explanation: The stop status check for the space indicated in the message timed out.
User response: After the repair operation is started, Db2 Change Accumulation Tool checks the space and waits for the recover pending flag to be removed by Db2. This message was generated because after checking 5 times in 15 seconds, the space was still in recover pending status. You must remove the recover pending status manually.
**GGC3002E** An attempt to Repair the Recover Pending status failed.

**Explanation:** The JCL attempted to repair the recover pending status but the repair failed.

**User response:** When Db2 Change Accumulation Tool called Db2 to repair the recover pending status for the space, the operation finished with an error condition. Contact IBM Software Support.

---

**GGC3003E** An error occurred on an attempt to open the DSNUTILB Steplib.

**Explanation:** Db2 Change Accumulation Tool was unable to open the DSNUTILB Steplib.

**User response:** The Db2 loadlib concatenation specified on the Update DB2 Subsystem Parameters panel is incomplete. When DSNUTILB attempted to use this concatenation, some of the required load modules were not found. Verify that you have specified the correct load modules on the Update DB2 Subsystem Parameters panel. If the problem persists, contact IBM Software Support.

---

**GGC3004E** The Repair operation’s SYSPRINT output dataset could not be opened.

**Explanation:** Db2 Change Accumulation Tool was unable to open the repair operation’s SYSPRINT output data set.

**User response:** Verify that the data set exists and is available for use.

---

**GGC3005E** The Repair operation’s SYSIN dataset allocation failed.

**Explanation:** Db2 Change Accumulation Tool was unable to allocate the repair operation’s SYSIN data set.

**User response:** To call Db2 to repair the recover pending status, a SYSIN data set needs to be allocated to hold the Db2 command processor’s output stream. Db2 Change Accumulation Tool was unable to allocate this data set. Check the settings you specified in the User Settings option and correct any errors.

---

**GGC3006E** Dynamic allocation return code = return_code

**Explanation:** This message reports the return code associated with the failed dynamic allocation attempt.

**User response:** Ensure the data set exists and is available for use.

---

**GGC3007E** The SYSIN DD could not be opened for output during Repair processing.

**Explanation:** Db2 Change Accumulation Tool was unable to open the SYSIN DD during repair processing.

**User response:** Check the settings you specified in the User Settings option and correct any errors.

---

**GGC3008E** Open error code=error_code

**Explanation:** This message reports the open error code that Db2 Change Accumulation Tool encountered when it attempted to open the SYSIN DD.

**User response:** Check the settings you specified in the User Settings option and correct any errors.

---

**GGC3009E** The Repair operation’s SYSPRINT dataset allocation failed.

**Explanation:** Db2 Change Accumulation Tool was unable to allocate the repair operation’s SYSPRINT data set.

**User response:** To call Db2 to repair the recover pending status, a SYSPRINT data set needs to be allocated to hold the Db2 command processor’s output stream. Db2 Change Accumulation Tool was unable to allocate this data set. Check the settings you specified in the User Settings option and correct any errors.

---

**GGC3100I** Truncation error displaying panel in GGC$MAIN - return_code

**Explanation:** A truncation error occurred. 


---

**GGC3101I** Severe error displaying panel in GGC$MAIN - return_code

**Explanation:** An internal error has occurred.


---

**GGC3102I** Unexpected return code from panel in GGC$MAIN - return_code

**Explanation:** An unexpected return code was received.


---
GGC3200E  The XLAT_DSN, DBID, PSID, and at least one OBID must be specified.

**Explanation:** When performing an OBIDXLAT, you must specify the XLAT_DSN, DBID, PSID and at least one OBID in your Change Accum syntax.

**User response:** Specify the XLAT_DSN, DBID, PSID and at least one OBID in your Change Accum syntax.

---

G GC3201E  The CONTINUE_ON_ERROR keyword has already been coded.

**Explanation:** You specified the CONTINUE_ON_ERROR keyword more than once.

**User response:** Correct the JCL and resubmit the job.

---

G GC3202E  The XLAT_IN_DSN keyword has already been coded.

**Explanation:** You specified the XLAT_IN_DSN keyword more than once.

**User response:** Correct the JCL and resubmit the job.

---

G GC3203E  Invalid XLAT_IN_DSN syntax.

**Explanation:** The XLAT_IN_DSN syntax you specified is not valid. The correct syntax is XLAT_IN_DSN 'dsn', where dsn is the fully qualified Db2 data set name of a full image copy to be used instead of reading SYSCOPY. If you specify an XLAT_IN_DSN, you must also specify an XLAT_IN_LOGPOINT for the full image copy.

**User response:** Correct the XLAT_IN_DSN syntax and resubmit the job.

---

G GC3204E  The XLAT_IN_DSN parameter was specified, but no value was found with it.

**Explanation:** The correct syntax is XLAT_IN_DSN 'dsn', where dsn is the fully qualified Db2 data set name of a full image copy to be used instead of reading SYSCOPY.

**User response:** Correct the JCL and resubmit the job.

---

G GC3205E  OBIDXLAT input override parameters found without output parameters.

**Explanation:** The OBIDXLAT syntax is incomplete.

**User response:** Use the OBIDXLAT keyword to specify object translation information (DBID / PSID / OBID) and enable recovery via WRITE_TO_VSAM of tables within an image copy to a different VSAM / table space than the one indicated in the generated logs. The variable dataset_name is the fully qualified Db2 data set name of the target table space (the data set name that is going to contain the translated image copy), valid values are up to 44 bytes. When specifying the dbid, psid, and obid pairs, you must specify the pairs of source/target IDs in that order (DBID first, PSID second, followed by all applicable OBID pairs). All pairs should be space separated and the source ID is listed first with the target ID listed second. Each pair should be defined on a new line. Define multiple OBID pairs as necessary.

**User response:** Correct the JCL and resubmit the job.

---

G GC3206E  The XLAT_IN_LOGPOINT parameter was specified, but no value was found with it.

**Explanation:** The correct syntax is XLAT_IN_LOGPOINT 'logpoint', where logpoint is the RBA/LRSN of the override full image copy data set.

**User response:** Correct the JCL and resubmit the job.

---

G GC3207E  Syntax error around XLAT_IN_LOGPOINT value. Form is X"6–byte-hex-value".

**Explanation:** The correct syntax is XLAT_IN_LOGPOINT 'logpoint', where logpoint is the 6-byte hexadecimal value of the RBA/LRSN of the override full image copy data set.

**User response:** Correct the JCL and resubmit the job.

---

G GC3208E  The XLAT_IN_LOGPOINT value contains an invalid hexadecimal value.

**Explanation:** The correct syntax is XLAT_IN_LOGPOINT 'logpoint', where logpoint is the 6-byte hexadecimal value of the RBA/LRSN of the override full image copy data set.

**User response:** Correct the JCL and resubmit the job.

---

G GC3209E  The XLAT_IN_LOGPOINT value cannot be 0.

**Explanation:** The correct syntax is XLAT_IN_LOGPOINT 'logpoint', where logpoint is the 6-byte hexadecimal value of the RBA/LRSN of the override full image copy data set.

**User response:** Correct the JCL and resubmit the job.

---

G GC3210E  The XLAT_IN_LOGPOINT keyword was already specified.

**Explanation:** You specified the XLAT_IN_LOGPOINT keyword more than once.

**User response:** Correct the JCL and resubmit the job.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Explanation</th>
<th>User response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC3211E</td>
<td>The INCR_IN_LOGPOINT parameter was specified, but no value was found with it.</td>
<td>Explanation: The correct syntax is INCR_IN_LOGPOINT 'logpoint', where logpoint is the 6-byte hexadecimal value of the RBA/LRSN of the incremental DSN.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3212E</td>
<td>The INCR_IN_DSN keyword has already been coded.</td>
<td>Explanation: You specified the INCR_IN_DSN keyword more than once.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3213E</td>
<td>Invalid INCR_IN_DSN syntax.</td>
<td>Explanation: The INCR_IN_DSN syntax you specified is not valid. The correct syntax is INCR_IN_DSN 'dsn' where 'dsn' is the incremental DSN that is to be included in OBIDXLAT processing.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3214E</td>
<td>The INCR_IN_DSN parameter was specified, but no value was found with it.</td>
<td>Explanation: The INCR_IN_DSN syntax you specified is not valid. The correct syntax is INCR_IN_DSN 'dsn' where 'dsn' is the incremental DSN that is to be included in OBIDXLAT processing.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3215E</td>
<td>The INCR_IN_LOGPOINT keyword was already specified.</td>
<td>Explanation: You specified the INCR_IN_LOGPOINT keyword more than once.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3216E</td>
<td>Syntax error around INCR_IN_LOGPOINT value. Form is X&quot;6-byte-hex-value&quot;.</td>
<td>Explanation: The correct syntax is INCR_IN_LOGPOINT 'logpoint' where 'logpoint' is the 6-byte hexadecimal value of RBA/LRSN for the incremental DSN.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3217E</td>
<td>The INCR_IN_LOGPOINT value contains an invalid hexadecimal value.</td>
<td>Explanation: The correct syntax is INCR_IN_LOGPOINT 'logpoint' where 'logpoint' is the 6-byte hexadecimal value of RBA/LRSN for the incremental DSN.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3218E</td>
<td>The INCR_IN_LOGPOINT value cannot be 0.</td>
<td>Explanation: The correct syntax is INCR_IN_LOGPOINT 'logpoint' where 'logpoint' is the 6-byte hexadecimal value of RBA/LRSN for the incremental DSN.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3219E</td>
<td>The INCR_IN_DSN and INCR_IN_LOGPOINT must be specified together.</td>
<td>Explanation: You must specify the INCR_IN_DSN and INCR_IN_LOGPOINT together.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3220E</td>
<td>The XLAT_IN_DSN was not found in the MVS catalog.</td>
<td>Explanation: The XLAT_IN_DSN was not found in the MVS catalog.</td>
<td>Verify that the XLAT_IN_DSN data set you specified is valid.</td>
</tr>
<tr>
<td>GGC3221E</td>
<td>The INCR_IN_DSN was not found in the MVS catalog.</td>
<td>Explanation: The INCR_IN_DSN was not found in the MVS catalog.</td>
<td>Verify that the INCR_IN_DSN data set you specified is valid.</td>
</tr>
<tr>
<td>GGC3222E</td>
<td>Using OBIDXLAT incremental image copies requires a starting full image copy.</td>
<td>Explanation: The OBIDXLAT syntax you specified is not valid.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3223E</td>
<td>Invalid XLAT_INCREMENTAL(...) keyword syntax.</td>
<td>Explanation: The XLAT_INCREMENTAL(...) syntax you specified is not valid.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3224E</td>
<td>Using OBIDXLAT incremental image copies requires a starting full image copy.</td>
<td>Explanation: The OBIDXLAT syntax you specified is not valid.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
</tbody>
</table>
The IC_VOLUME_COUNT parameter was specified, but no value was found with it.

Explanation: The IC_VOLUME_COUNT syntax you specified is not valid. The correct syntax is IC_VOLUME_COUNT 'n' where 'n' is an integer in the range of 1 to 255.

User response: Correct the JCL and resubmit the job.

The IC_VOLUME_COUNT keyword has already been coded.

Explanation: You specified the IC_VOLUME_COUNT keyword more than once.

User response: Correct the JCL and resubmit the job.

The IC_VOLUME_COUNT parameter specified is invalid.

Explanation: The IC_VOLUME_COUNT syntax you specified is not valid. The correct syntax is IC_VOLUME_COUNT 'n' where 'n' is an integer in the range of 1 to 255.

User response: Correct the JCL and resubmit the job.

The IC_LP keyword group has already been coded for this space group.

Explanation: You specified the IC_LP keyword more than once in the space group.

User response: Correct the JCL and resubmit the job.

The IC_LB keyword group has already been coded for this space group.

Explanation: You specified the IC_LB keyword more than once in the space group.

User response: Correct the JCL and resubmit the job.

The IC_RP keyword group has already been coded for this space group.

Explanation: You specified the IC_RP keyword more than once in the space group.

User response: Correct the JCL and resubmit the job.

The IC_RB keyword group has already been coded for this space group.

Explanation: You specified the IC_RB keyword more than once in the space group.

User response: Correct the JCL and resubmit the job.

One or both mini log data sets are found in the MVS catalog, but they are not found in the Change Accum mini log control table.

Explanation: The mini log data sets are in the MVS catalog but not in the mini log control table.

User response: Remove unusable mini log data sets from the MVS catalog.

Mini log data set dsn has mismatched type in the GGC mini log control table.

Explanation: You attempted to append the mini log with the wrong type of data.

User response: Specify the mini log DSN at the appropriate GROUP or SPACE level.

Only one of two mini log data set names was found in the mini log control table.

Explanation: You specified two mini log data set names but only one of the pair is found in the mini log control table.

User response: Verify that you have specified the correct mini log data set pair. Specify only one data set name to append only one existing mini log or new unique data set name pairs.

Mini log DSN dsn is not appended because corresponding dataset not found in the MVS catalog.

Explanation: The specified mini log data set cannot be found in the MVS catalog.

User response: Remove any rows with incorrect data set names from the Db2 Change Accumulation Tool mini log control table.

Mini log data set dsn contains data for the different tablespace and could not be appended.

Explanation: The data set indicated in the message text contains data for a different table space and could not be appended.

User response: Verify that you have specified the correct mini log data set name.

The XLAT_TARGET_SSID keyword has already been coded.

Explanation: You specified the XLAT_TARGET_SSID keyword more than once.

User response: Correct the JCL and resubmit the job.
GGC3238E Invalid XLAT_TARGETSSID syntax.
Explanation: The XLAT_TARGETSSID syntax is not valid.
User response: Correct the JCL and resubmit the job.

GGC3239E The XLAT_TARGETSSID parameter was specified, but no value was found with it.
Explanation: You must specify a valid value with the XLAT_TARGETSSID parameter.
User response: Correct the JCL and resubmit the job.

GGC3240E The XLAT_TARGETDBNAME keyword has already been coded.
Explanation: The XLAT_TARGETDBNAME keyword was already been coded.
User response: Correct the JCL and resubmit the job.

GGC3241E Invalid XLAT_TARGETDBNAME syntax.
Explanation: The XLAT_TARGETDBNAME syntax is not valid.
User response: Correct the JCL and resubmit the job.

GGC3242E The XLAT_TARGETDBNAME parameter was specified, but no value was found with it.
Explanation: You must specify a valid value with the XLAT_TARGETDBNAME parameter.
User response: Correct the JCL and resubmit the job.

GGC3243E The XLAT_TARGETTSNAME keyword has already been coded.
Explanation: The XLAT_TARGETTSNAME keyword was alr already been coded.
User response: Correct the JCL and resubmit the job.

GGC3244E Invalid XLAT_TARGETTSNAME syntax.
Explanation: The XLAT_TARGETTSNAME syntax is not valid.
User response: Correct the JCL and resubmit the job.

GGC3245E The XLAT_TARGETTSNAME parameter was specified, but no value was found with it.
Explanation: You must specify a valid value with the XLAT_TARGETTSNAME parameter.
User response: Correct the JCL and resubmit the job.

GGC3246E The XLAT_TARGETSSID/DBNAME/TSNAME must be specified together.
Explanation: The XLAT_TARGETSSID, DBNAME, and TSNAME parameters must be specified together.
User response: Correct the JCL and resubmit the job.

GGC3247E The XML_JOBS_DSN keyword has already been coded.
Explanation: The XML_JOBS_DSN keyword was coded more than once.
User response: Correct the JCL and resubmit the job.

GGC3248E Invalid XML_JOBS_DSN syntax.
Explanation: The XML_JOBS_DSN syntax is not valid.
User response: Correct the JCL and resubmit the job.

GGC3249E The XML_JOBS_DSN parameter was specified, but no value was found with it.
Explanation: You must specify a valid value with the XML_JOBS_DSN parameter.
User response: Correct the JCL and resubmit the job.

GGC3250E The XML_JOBS_MEMBER_PFX keyword has already been coded.
Explanation: The XML_JOBS_MEMBER_PFX keyword was already been coded.
User response: Correct the JCL and resubmit the job.

GGC3251E Invalid XML_JOBS_MEMBER_PFX syntax.
Explanation: The XML_JOBS_MEMBER_PFX syntax is not valid.
User response: Correct the JCL and resubmit the job.

GGC3252E The XML_JOBS_MEMBER_PFX parameter was specified, but no value was found with it.
Explanation: You must specify a valid value with the XML_JOBS_MEMBER_PFX parameter.
User response: Correct the JCL and resubmit the job.

GGC3253E The XML_TEMPLATE_DSN keyword has already been coded.
Explanation: The XML_TEMPLATE_DSN keyword has already been coded.
User response: Correct the JCL and resubmit the job.

Chapter 10. Troubleshooting 277
**User response:** Correct the JCL and resubmit the job.

**Explanation:**

**GGC3254E** • **Invalid XML_TEMPLATE_DSN syntax.**

- **Explanation:** The XML_TEMPLATE_DSN syntax is not valid.
- **User response:** Correct the JCL and resubmit the job.

**GGC3255E** • **The XML TEMPLATE_DSN parameter was specified, but no value was found with it.**

- **Explanation:** You must specify a valid value with the XML TEMPLATE_DSN parameter.
- **User response:** Correct the JCL and resubmit the job.

**GGC3256E** • **The XML TEMPLATE_MEMBER keyword has already been coded.**

- **Explanation:** The XML TEMPLATE_MEMBER keyword has already been coded.
- **User response:** Correct the JCL and resubmit the job.

**GGC3257E** • **Invalid XML TEMPLATE_MEMBER syntax.**

- **Explanation:** The XML TEMPLATE_MEMBER syntax is not valid.
- **User response:** Correct the JCL and resubmit the job.

**GGC3258E** • **The XML TEMPLATE_MEMBER parameter was specified, but no value was found with it.**

- **Explanation:** A valid value was not specified with the XML TEMPLATE_MEMBER parameter.
- **User response:** Correct the JCL and resubmit the job.

**GGC3259E** • **The XML JOBS_* and XML TEMPLATE_* parameters must be specified together.**

- **Explanation:** The XML JOBS_* and XML TEMPLATE_* parameters must be specified together.
- **User response:** Correct the JCL and resubmit the job.

**GGC3260W** • **Incremental method SORT is obsolete. MERGE mode used instead.**

- **Explanation:** INCREMENTAL SORT is no longer supported (it is ignored). The internal method used instead is MERGE.
- **User response:** No action is required.

**GGC3261E** • **OBIDXLAT processing is not allowed.**

- **Explanation:** OBIDXLAT is not allowed.
- **User response:** Correct the JCL and resubmit the job.

**GGC3262E** • **At least one SPACE() control card set is required.**

- **Explanation:** At least one SPACE() control card set is required, but no SPACE control card sets have been specified.
- **User response:** Correct the JCL and resubmit the job.

**GGC3263E** • **The PARALLEL parameter was specified, but no value was found with it.**

- **Explanation:** The keyword PARALLEL has been coded with no associated value.
- **User response:** Correct the JCL and resubmit the job.

**GGC3264E** • **Invalid PARALLEL value.**

- **Explanation:** The value for keyword PARALLEL is not valid.
- **User response:** Correct the JCL and resubmit the job.

**GGC3265E** • **The PARALLEL keyword has already been coded.**

- **Explanation:** The PARALLEL keyword has already been coded.
- **User response:** Correct the JCL and resubmit the job.

**GGC3266E** • **The REBUILD_INDEXES keyword was specified for the index space but the parent table space was not included.**

- **Explanation:** You specified the REBUILD_INDEXES parameter for an index space, but did not include a parent table space.
- **User response:** Correct the JCL and resubmit the job.

**GGC3267E** • **Indexes can be rebuilt only when WRITE_TO_VSAM or WRITE_TO_BOTH is specified.**

- **Explanation:** You specified the REBUILD_INDEXES parameter, but not WRITE_TO_VSAM or WRITE_TO_BOTH.
- **User response:** Correct the JCL and resubmit the job.
The OBIDXLAT keyword, present for the index space to rebuild, must be in line with the parent table space.

**Explanation:** You specified the index space and its parent table space with the REBUILD_INDEXES parameter, but OBIDXLAT has been specified only for one of them.

**User response:** Correct the JCL and resubmit the job.

---

The REBUILD_INDEXES keyword and the end point specification are mutually exclusive for index spaces.

**Explanation:** You specified the REBUILD_INDEXES parameter and an end point for the recovery process. These are mutually exclusive.

**User response:** Correct the JCL and resubmit the job.

---

One of TO_CURRENT, TO_QUIESCE, END_RBA, END_LRSN, TOLOGPOINT or REBUILD_INDEXES must be specified.

**Explanation:** You did not specify one of the following required options in your JCL: TO_CURRENT, TO_QUIESCE, END_RBA, END_LRSN, TOLOGPOINT or REBUILD_INDEXES.

**User response:** Correct the JCL and resubmit the job.

---

The REBUILD_INDEXES keyword has already been coded.

**Explanation:** You specified the REBUILD_INDEXES parameter more than once.

**User response:** Correct the JCL and resubmit the job.

---

The NO_REUSE keyword was coded multiple times for the same object.

**Explanation:** The NO_REUSE keyword was specified more than once for the same object.

**User response:** Correct the JCL and resubmit the job.

---

The NO_REUSE keyword is not valid in the current job environment.

**Explanation:** The NO_REUSE keyword was specified in a job type other than WRITE_TO_VSAM or WRITE_TO_BOTH.

**User response:** Correct the JCL and resubmit the job.

---

The CHECK_AFTER_QUIESCE keyword was coded multiple times for the same object.

**Explanation:** The CHECK_AFTER_QUIESCE keyword was coded more than once for the same object.

**User response:** Correct the JCL and resubmit the job.

---

The CHECK_AFTER_QUIESCE keyword specified without TO_QUIESCE.

**Explanation:** The CHECK_AFTER_QUIESCE was specified but TO_QUIESCE was not specified for space.

**User response:** Correct the JCL and resubmit the job.

---

The CHECK_AFTER_QUIESCE keyword conflicts with UNIFIED check specified.

**Explanation:** The CHECK_AFTER_QUIESCE keyword conflicts with the UNIFIED keyword.

**User response:** Correct the JCL and resubmit the job.

---

The CHECK_AFTER_QUIESCE keyword conflicts with NO_SYSLGRNX keyword.

**Explanation:** The CHECK_AFTER_QUIESCE keyword was specified with the NO_SYSLGRNX keyword. This is not valid.

**User response:** Correct the JCL and resubmit the job.

---

The TO_CONSISTENT_IC has already been coded for this space group.

**Explanation:** The TO_CONSISTENT_IC has already been coded for the space group.

**User response:** Correct the JCL and resubmit the job.

---

Only WRITE_TO_COPIES is supported when TO_CONSISTENT_IC is specified.

**Explanation:** Only WRITE_TO_COPIES is supported when TO_CONSISTENT_IC is specified.

**User response:** Correct the JCL and resubmit the job.

---

Error token: token has an empty value. Space number

**Explanation:** The indicated token has an empty value.

**User response:** Correct the JCL and resubmit the job.
### Error Messages

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Explanation</th>
<th>User response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC3281E</td>
<td>Error token: <em>token</em> appears more than once. Space# <em>number</em>.</td>
<td>The indicated token could not be specified more than once on current level.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3282E</td>
<td>Error token: <em>token</em> has an invalid value: <em>value</em>. Space# <em>number</em>.</td>
<td>An invalid <em>value</em> was detected for <em>token</em>.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3283E</td>
<td>Error token: <em>token1</em> is unexpected with <em>token</em>: <em>token2</em>. Space# <em>number</em>.</td>
<td><em>token1</em> could not be used when <em>token2</em> is used.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3284E</td>
<td>Error token: <em>token1</em> using require token: <em>token2</em>.</td>
<td><em>token1</em> could not be used without <em>token2</em> specified.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3289E</td>
<td>The FCCOPYDDN parameter was specified, but no value was found with it.</td>
<td>The FCCOPYDDN parameter was specified, but no value was found with it.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3290E</td>
<td>The FCCOPYDDN parameter specified is invalid.</td>
<td>The FCCOPYDDN parameter specified is invalid.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3291E</td>
<td>The FCCOPYDDN keyword has already been coded for this group.</td>
<td>The FCCOPYDDN keyword has already been coded for this group.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3292E</td>
<td>The FCCOPYDDN keyword can be used with NEW_COPY.</td>
<td>The FCCOPYDDN keyword can be used with NEW_COPY.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3293E</td>
<td>The NEW_COPY keyword has already been coded for this group.</td>
<td>The NEW_COPY keyword has already been coded for this group.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3295E</td>
<td>The Name parameter was specified, but no value was found with it.</td>
<td>The Name parameter was specified, but no value was found with it.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3296E</td>
<td>The NAME parameter is invalid.</td>
<td>The NAME parameter is invalid.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3297E</td>
<td>The NAME keyword has already been coded for this space group.</td>
<td>The NAME keyword has already been coded for this space group.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3298E</td>
<td>The Creator/Name specified did not match a DBNAME.TNAME in SYSTABLES.</td>
<td>The Creator/Name specified did not match a DBNAME.TNAME in SYSTABLES.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3300E</td>
<td>Could not obtain SSID, user indicator from input parameters.</td>
<td>Db2 Change Accumulation Tool could not obtain the SSID and user indicator from the input parameters.</td>
<td>Verify that the correct SSID and user indicator values have been specified.</td>
</tr>
<tr>
<td>GGC3301E</td>
<td>Invalid parameter format</td>
<td>The parameter format you specified is not valid.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC3302E</td>
<td>No SYSOUT DD was found.</td>
<td>Db2 Change Accumulation Tool could not find the SYSOUT DD.</td>
<td>Verify that the SYSOUT DD is available.</td>
</tr>
</tbody>
</table>
Could not open SYSOUT DD.

Explanation: Db2 Change Accumulation Tool could not open the SYSOUT DD.

User response: Verify that the SYSOUT DD is available.

Invalid SYSOUT DD LRECL value.

Explanation: The SYSOUT DD LRECL is invalid.

User response: Specify a valid SYSOUT DD LRECL value.

No SYSIN DD was found.

Explanation: Db2 Change Accumulation Tool could not find the SYSIN DD.

User response: Verify that the SYSIN DD is available.

Could not open SYSIN DD.

Explanation: Db2 Change Accumulation Tool could not open the SYSIN DD.

User response: Verify that the SYSIN DD is available.

Control file values could not be read. Check for a user indicator mismatch.

Explanation: The control file values could not be read.

User response: Check for a user indicator mismatch.

Error in SYSIN line format.

Explanation: There was an error in the SYSIN line format.

User response: Correct the SYSIN line format.

The GGC#DATA instream DD could not be opened.

Explanation: The DD could not be found in the job generated by Db2 Change Accumulation Tool.

User response: Ensure that the job generated by Db2 Change Accumulation Tool to run on this LPAR was not altered and the GGC#DATA DD exists in the generated job.

The following XML SSID/DBname/TSname control card is invalid:

Explanation: The control cards do not conform to expected syntax.

User response: Correct the JCL and resubmit the job.

An internal error occurred in program GGC#XMLD

Explanation: Internal error.

User response: Contact IBM Software Support.

Could not obtain SSID and User Indicator from input parameters.

Explanation: The log apply job was unsuccessful in trying to connect to the specified subsystem when processing spaces with XML data.

User response: Verify that the subsystem SSID specified in the job is accurate. Correct the JCL and resubmit the job. If the problem persists, contact IBM Software Support.

Could not open the SYSOUT DD.

Explanation: The log apply job could not open the SYSOUT DD.

User response: Verify that the SYSOUT DD is specified in the job. Correct the JCL and resubmit the job. If the problem persists, contact IBM Software Support.

Invalid SYSOUT DD LRECL.

Explanation: The LRECL specified on the SYSOUT DD is incorrect.

User response: Verify that the LRECL specified in the SYSOUT DD is accurate. Correct the JCL and resubmit the job. If the problem persists, contact IBM Software Support.

Object object required no action.

Explanation: The object was determined to require no action to make the object usable.

User response: No action is required.

Object object had its sequence nbr increased by rowcount.

Explanation: Db2 Change Accumulation Tool updated the catalog to make the XML object usable.

User response: No action is required.
GGC3452I  With a source count=count

Explanation: Db2 Change Accumulation Tool updated the catalog to make the XML object usable.
User response: No action is required.

GGC3500E  The XML target SSID/DBname/TSname control cards are invalid.

Explanation: The subsystem, database name or table space name are invalid in the log apply control cards.
User response: Correct the subsystem, database name or table space name and resubmit the job. If the problem persists, contact IBM Software Support.

GGC3501I  The SPACE(...) set involved that the error was detected in was spacesetnumber

Explanation: Indicates the SPACE set involved in the error.
User response: No action is required.

GGC3600E  A log apply task could not be started.

Explanation: A log apply task could not be started.
User response: Contact IBM Software Support.

GGC3601E  Log apply task returned an error, RC=return_code.

Explanation: The log apply component could not finish normally. An abnormal condition was detected.
User response: Check the job output for other error messages that further explain the error in the output. Make note of the return codes provided in the messages, and then contact IBM Software Support.

GGC3602E  The CELL64 service could not be initialized.

Explanation: The CELL64 service could not be initialized.
User response: Contact IBM Software Support.

GGC3603E  A get cell function call failed.

Explanation: A get cell function call failed.
User response: Contact IBM Software Support.

GGC3604E  The SPACE(...) set involved that the error was detected in was # XXXXX

Explanation: This message shows the SPACE(...) set where the error was detected.
User response: Correct the JCL and resubmit the job.

GGC3605E  The end point for database.table_space did not match the UNIFIED value.

Explanation: The end point for the table space indicated in the message did not match the value specified for the UNIFIED value.
User response: No action is required.

GGC3606E  Consistency value = X'consistency_token'

Explanation: A problem occurred with the UNIFIED or UNIFIED_WARNING control cards. The message displays the consistency value taken from the first object in the group.
User response: The values shown in GGC3606E and GGC3607E can be compared for diagnostic purposes. The value shown in GGC3606E is that for the first object in the group, while the value shown in GGC3607E is the value for any object that does not match it. For example, if there are 10 objects in the group and three do not match the first, then one GGC3606E message will display with three GGC3607E messages (for each group).

GGC3607E  Object's derived value = X'consistency_token'

Explanation: A problem occurred with the UNIFIED or UNIFIED_WARNING control cards. The message displays the object's derived value for the first object in the group. This message displays any object that does not match the first object in the group (identified in GGC3606E).
User response: The values shown in GGC3606E and GGC3607E can be compared for diagnostic purposes. The value shown in GGC3606E is that for the first object in the group, while the value shown in GGC3607E is the value for any object that does not match it. For example, if there are 10 objects in the group and three do not match the first, then one GGC3606E message will display with three GGC3607E messages (for each group).

GGC3608E  The initialization phase of DB2 Sort failed.

Explanation: The initialization phase of Db2 Sort failed.
User response: Contact IBM Software Support.

GGC3609E  The resource optimization phase [1|2] of DB2 sort failed. RC="return_code"

Explanation: Db2 Sort failed in the initialization step necessary for optimization.
User response: Contact IBM Software Support.
<table>
<thead>
<tr>
<th>GGC3610E</th>
<th>The terminate phase of DB2 Sort failed.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>The terminate phase of Db2 Sort failed.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Contact IBM Software Support.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3611E</th>
<th>There is not enough storage to perform the desired number of parallel sorts.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>There is not enough virtual storage space to perform the number of parallel sorts specified.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Lower the number of parallel tasks specified or increase the amount of virtual memory specified available for the job, then resubmit the job.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3612E</th>
<th>Insufficient total storage to perform the desired number of parallel sorts.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>The amount of storage available for a sort was insufficient.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Increase your region size or reduce the number of parallel tasks, then resubmit the job.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3613E</th>
<th>The log apply tasks ended abnormally. Check messages.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>One or more of the log apply tasks failed to process.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Check the accompanying error messages.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3614E</th>
<th>Rebuild indexes task manager could not be started.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>The rebuild indexes task manager could not be started.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Check the accompanying error messages.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3615I</th>
<th>Log apply task manager returned an error, RC=return_code.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>The specified error occurred during parallel log apply processing.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>No action is required.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3616E</th>
<th>The Db2 command processor responded with a bad return code.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An error was encountered when attempting to execute a Db2 command.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Contact IBM Software Support.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3619E</th>
<th>The pipe mechanism initialization function returned an error.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An error occurred during pipe initialization.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Check the log for related errors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3620E</th>
<th>The pipe mechanism cleanup function returned an error.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An error occurred during pipe cleanup.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Check the log for related errors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3621E</th>
<th>The common storage name/token pair could not be found.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>The common storage that was created at program startup could not be located, which indicates a possible error during initialization.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Contact IBM Software Support.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3622E</th>
<th>An error occurred while calling IEANTRT to get the name/token pair.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An error occurred while accessing common storage via IEANTRT.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Contact IBM Software Support.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3623E</th>
<th>A table was specified that was already being loaded.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>A table that was included in the job was already being loaded by another job.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Wait for the first job to complete, and then rerun the second job.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3624E</th>
<th>A table did not have a matching entry in common storage.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>Required table information was not found in common storage. A problem might have occurred during initialization, or the common storage might have been cleared.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Verify that common storage was not cleared. If necessary, contact IBM Software Support.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGC3625E</th>
<th>An error occurred attempting to open a pipe.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An error occurred while the product was opening a pipe.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Check the log for related errors. Also check the started task for any error messages.</td>
</tr>
</tbody>
</table>
An error occurred attempting an open on a pipe.

Explanation: An error occurred while the product was attempting to open a pipe for writing data to the accelerator.

User response: Verify that the started task is still running and check for related error messages. If necessary, contact IBM Software Support.

An error occurred attempting to create a name/token pair.

Explanation: An error occurred while the product was attempting to save the address of common storage via IEANTCR.

User response: Contact IBM Software Support.

An error occurred attempting to call the system post function.

Explanation: An error occurred while the product was posting to the started task.

User response: Check the started task for error messages. If necessary, contact IBM Software Support.

An error occurred while attempting to attach ACCEL_LOAD_TABLES.

Explanation: An error occurred while the product was attaching a new task.

User response: Contact IBM Software Support.

The ACCEL_LOAD_TABLES stored procedure ended prematurely.

Explanation: The ACCEL_LOAD_TABLES stored procedure ended before the product opened all data pipes.

User response: Check the log for related errors.

The call to connect to DB2 returned an error.

Explanation: Connecting to Db2 in order to call a stored procedure failed.

User response: Ensure that the subsystem is running.

The call to open the connection to DB2 returned an error.

Explanation: Opening a Db2 connection in order to call a stored procedure failed.

User response: Ensure that the subsystem is running.

The ACCEL_LOAD_TABLES stored procedure returned an error.

Explanation: An error occurred during the call to ACCEL_LOAD_TABLES.

User response: Check the log for the ACCEL_LOAD_TABLES error message.

The ACCEL_LOAD_TABLES stored procedure returned an SQLCODE other than +466.

Explanation: The call to the ACCEL_LOAD_TABLES stored procedure resulted in an SQL error.

User response: Check the log for the ACCEL_LOAD_TABLES SQL error message.

The ACCEL_LOAD_TABLES stored procedure returned an unexpected SQLCODE.

Explanation: The call to the ACCEL_LOAD_TABLES stored procedure resulted in an SQL error.

User response: Check the log for the ACCEL_LOAD_TABLES SQL error message.

The ACCEL_LOAD_TABLES stored procedure abended.

Explanation: The call to the ACCEL_LOAD_TABLES stored procedure resulted in an abend.

User response: Contact IBM Software Support.

The pipe interface program returned an unknown error.

Explanation: The call to the ACCEL_LOAD_TABLES stored procedure resulted in an abend.

User response: Contact IBM Software Support.

The pipe interface program returned an expected SQLCODE.

Explanation: The call to the ACCEL_LOAD_TABLES stored procedure resulted in an expected SQL error.

User response: Check the log for the ACCEL_LOAD_TABLES SQL error message.

This message provides the following information:

SVC99 details = svcc99_details
SVC99_CODE_1
SVC99_CODE_2
SVC99_DDNAME ddname
SVC99_PIPE

User response: No action is required.
GGC3639I  DDNAME = ddname.
Explanation: This message provides the DD name.
User response: No action is required.

GGC3640I  This message provides SSID information.
Explanation: SSID = ssid.
User response: No action is required.

GGC3641I  This message provides DB2 connection error information.
Explanation: SSID = ssid Plan name = plan_name.
User response: No action is required.

GGC3642I  This message provides a return code.
Explanation: Return code = return_code.
User response: No action is required.

GGC3643E  Error token: token, have no value.
Explanation: A syntax error was detected near token.
User response: Verify the syntax structure of the control cards. If no syntax errors can be identified, contact IBM Software Support.

GGC3644E  Error token: token, invalid value.
Explanation: A syntax error was detected near token.
User response: Verify the syntax structure of the control cards. If no syntax errors can be identified, contact IBM Software Support.

GGC3645E  Error token: token, appears more than once.
Explanation: A syntax error was detected near token.
User response: Verify the syntax structure of the control cards. If no syntax errors can be identified, contact IBM Software Support.

GGC3646E  Error token: token, value overflow.
Explanation: A syntax error was detected near token.
User response: Verify the syntax structure of the control cards. If no syntax errors can be identified, contact IBM Software Support.

GGC3647E  Error token: token, require token.
Explanation: The token control card is required in the context of the syntax.
User response: Verify the syntax structure of the control cards. If no syntax errors can be identified, contact IBM Software Support.

GGC3648E  Error token: token, have no parameters.
Explanation: A syntax error was detected near token.
User response: Verify the syntax structure of the control cards. If no syntax errors can be identified, contact IBM Software Support.

GGC3649E  Error token: token, open or close parenthesis expected.
Explanation: A syntax error was detected near token.
User response: Correct the JCL and resubmit the job.
GGC3711E Syntax error around TO_TIMESTAMP value. Form is "YYYY-MM-DD-HH.MM.SS.XXXXXX"

Explanation: There is a syntax error in the value of TO_TIMESTAMP. The valid format is "YYYY-MM-DD-HH.MM.SS.XXXXXX"

User response: Correct the JCL and resubmit the job.

GGC3712E The TO_TIMESTAMP value could not be converted. CONVTOD macro return code: returncode. Space#number

Explanation: An internal error occurred during the RBA to timestamp conversion process.

User response: Contact IBM Software Support.

GGC3713E The TO_TIMESTAMP value was already specified before end LRSN in a control group.

Explanation: The TO_TIMESTAMP value was already specified before end LRSN in a control group.

User response: Correct the JCL and resubmit the job.

GGC3714E The TO_TIMESTAMP keyword has already been coded for this space group.

Explanation: The TO_TIMESTAMP keyword has already been coded for this space group.

User response: Correct the JCL and resubmit the job.

GGC3715E Double count CREATORE keyword without NAME keyword between.

Explanation: The CREATORE syntax is not valid.

User response: Correct the JCL and resubmit the job.

GGC3716E Double count NAME keyword without CREATORE keyword between.

Explanation: The NAME and CREATORE syntax is invalid.

User response: Correct the JCL and resubmit the job.

GGC3717E The SPACE() node contains tables from inconsistent database/tablespace.

Explanation: The SPACE(...) node contains tables from an inconsistent database and table space combination.

User response: Correct the JCL and resubmit the job.

GGC3718E The ACCELNAME keyword has already been coded.

Explanation: The ACCELNAME keyword has already been coded.

User response: Correct the JCL and resubmit the job.

GGC3719E The ACCELNAME parameter is invalid.

Explanation: The ACCELNAME parameter is invalid.

User response: Correct the JCL and resubmit the job.

GGC3720E The ACCELNAME parameter was specified, but no value was found with it.

Explanation: The ACCELNAME parameter was specified, but no value was found with it.
User response: Correct the JCL and resubmit the job.

GGC3735E  The pipe mechanism initialization function returned an error.
Explanation: An error occurred during pipe initialization.
User response: Check the log for related errors.

GGC3736E  Error in checking the accelerator name.
Explanation: Db2 Change Accumulation Tool was unable to check the current accelerator name from the DISPLAY ACCELERATOR command output. The command output is displayed in the messages that follow.
User response: Review the command output and correct the problem.

GGC3737E  Error accelerator name invalid state.
Explanation: The accelerator state from DISPLAY ACCELERATOR command output is not "STARTED".
User response: Review the command output and correct the problem.

GGC3738E  Error exec -DIS ACCEL command rc = RC, rs = SQLSTATE
Explanation: An error was encountered when executing the DB2 DISPLAY ACCELERATOR command. Any available command output follows this message.
User response: Review the return code and correct the problem.

GGC3739E  Error call sysproc.accel_get_tables_details table owner.name severity severity, reason reason.
Explanation: There was an error in the call to stored procedure owner.name table. See also GGC3740I, GGC3741I, GGC3742I.
User response: Review the error codes and correct the problem.

GGC3740I  Error text: text
Explanation: This message displays the error text from the stored procedure and is displayed after message GGC3727I.
User response: No action is required.

GGC3741I  Error description: text
Explanation: This message displays the error description from the stored procedure and is displayed after message GGC3727I.
User response: No action is required.

GGC3742I  Error action: text
Explanation: This message displays the error action text from the stored procedure and is displayed after message GGC3727I.
User response: No action is required.

GGC3743E  Error could not parse XML output. XML output follows.
Explanation: An error was encountered parsing the XML output from the stored procedure. The XML output will be dumped after this message.
User response: Provide the output to IBM Software Support.

GGC3744E  Error table owner.table state state type type.
Explanation: Invalid state for owner.table on accelerator detected.
User response: To resolve, delete and re-add the table to the accelerator.

GGC3745E  Error table owner.table part number state state type type.
Explanation: Invalid state for owner.table on accelerator detected.
User response: To resolve, delete and re-add the table to the accelerator.

GGC3746W  Warning table owner.table part number state state type type.
Explanation: Invalid state for owner.table partition NUMBER on accelerator detected.
User response: Correct problem if needed.

GGC3747S  The global Loader intercept is not active.
Explanation: The Db2 Change Accumulation Tool started task has not been started since the last IPL.
User response: Start the Db2 Change Accumulation Tool started task. Issue the z/OS console command $prefixstc or the SDSF command /$prefixstc. The variable prefixstc represents the member name of the Db2 Change Accumulation Tool PROC in the system PROCLIB. For more information, see "Starting the
started task” in the product documentation.

**GCG3748S**  The selected DB2 system is not on the Loader started task intercept list.

**Explanation:** The DSNUTILB intercept policy for the Db2 Change Accumulation Tool started task must specify the Db2 system.

**User response:** Include the Db2 system in the DSNUTILB intercept policy by using the `<DB2SYSTEM>` element within the `<POLICY>` section of the DSNUTILB intercept policy as follows:

```
<DSNUTILB_INTERCEPT>
  <POLICY>
    <DB2SYSTEM SSID="ssid" ACTION="LOAD_ACCELERATOR">
    </DB2SYSTEM>
  </POLICY>
</DSNUTILB_INTERCEPT>
```

For more information, see the topic about the DSNUTILB intercept and the DSNUTILB intercept policy in the reference section of the product documentation.

**GCG3749S**  The selected DB2 system is not configured for intercepts by the Loader.

**Explanation:** Db2 Change Accumulation Tool cannot connect to the Db2 system because the Db2 Change Accumulation Tool started task is not running.

**User response:** Start the Db2 Change Accumulation Tool started task. Issue the z/OS console command `$prefixstc` or the SDSF command `/S prefixstc`. The variable `prefixstc` represents the member name of the Db2 Change Accumulation Tool PROC in the system PROCLIB. For more information, see “Starting the started task” in the product documentation.

**GCG3750E**  Error table table removed from processing. Multiple tables per table space unsupported.

**Explanation:** Db2 Change Accumulation Tool does not support the processing of multiple tables per table space.

**User response:** Correct the JCL and resubmit the job.

**GCG3751E**  A mismatch between passed Zparm information and the JES SSCT was found.

**Explanation:** A mismatch between passed Zparm information and the JES SSCT was found.

**User response:** Correct the JCL and resubmit the job.

**GCG3752E**  An unexpected error occurred while trying to read the bootstrap dataset.

**Explanation:** An unexpected error occurred while trying to read the bootstrap dataset.

**User response:** Contact IBM Software Support.

**GCG3753E**  Could not determine RBA of TO_TIMESTAMP point.

**Explanation:** The TO_TIMESTAMP control card was used, but the RBA cannot be determined.

**User response:** Specify a timestamp that has a valid RBA.

**GCG3754E**  Could not find log data set to determine RBA of TO_TIMESTAMP point.

**Explanation:** The TO_TIMESTAMP control card was used, but the specified timestamp cannot be correlated to any log data set in the boot strap data set (BSDS). If the timestamp is no longer valid, it cannot be used.

**User response:** Specify a timestamp that is within the boundaries of the logs that are recorded in the BSDS.

**GCG3755I**  Issuing HRECALL for log dataset

**Explanation:** Db2 Change Accumulation Tool is issuing an HRECALL for the log dataset.

**User response:** No action is required.

**GCG3756E**  A desired log range can not be found in any active/archive log.

**Explanation:** The specified log range cannot be found.

**User response:** Verify and correct the specified log range.

**GCG3757E**  The following log dataset is required for processing, but got an error:

**Explanation:** The specified ERROR_ARCHIVE_LOG_DSN produced an error.

**User response:** See message GGC3758I for more information.

**GCG3758I**  ERROR_ARCHIVE_LOG_DSN for GGC3757E message

**Explanation:** The specified ERROR_ARCHIVE_LOG_DSN produced an error.

**User response:** Specify a valid ERROR_ARCHIVE_LOG_DSN value.

**GCG3759I**  Table table part part state state type type.

**Explanation:** This message provides information to accompany other error messages.

**User response:** No action is required.
The TO_IC keyword has already been coded for this space group.

**Explanation:** The space specification set contains duplicate keywords.

**User response:** Correct the JCL and resubmit the job.

The TO_IC value has no contents.

**Explanation:** A syntax error was found in the control card. The data set name is required.

**User response:** Correct the JCL and resubmit the job.

The TO_IC parameter specified is invalid.

**Explanation:** A syntax error was found in the control card. The data set name must be enclosed in single quotation marks and can contain up to 44 characters.

**User response:** Correct the JCL and resubmit the job.

The selected end point is inconsistent with the run type.

**Explanation:** If the run type is a load to a consistent time (CONSISTENT load), the TO_IC end point control card cannot be used. If the run type is an image copy load, only the TO_IC end point can be used. End points such as TO_IC can only be used with the IDAA_LOAD_IC option. Other end points, such as TO_CURRENT, can only be used with the IDAA_CONSISTENT_LOAD option.

**User response:** Correct the JCL and resubmit the job.

The TO_IC_INLINE control card has already been specified for this object.

**Explanation:** A duplicate control card was found in the object specification.

**User response:** Correct the JCL and resubmit the job.

Keywords OBIXLAT and OBIXLAT_CATALOG can not be specified at the same time.

**Explanation:** The specified options are mutually exclusive, and only one of the options can be specified in the syntax.

**User response:** Correct the JCL and resubmit the job.

The DEBUG parameter has already been coded for this space group.

**Explanation:** The DEBUG parameter has been coded more than once for the SPACE(...) group.

**User response:** Correct the JCL and resubmit the job.

The DEBUG value has no contents.

**Explanation:** No value was specified for the DEBUG parameter is not valid.

**User response:** Correct the JCL and resubmit the job.

The ACCEL_ADD_TABLES keyword has already been coded for this run.

**Explanation:** The ACCEL_ADD_TABLES keyword has already been coded for this run.

**User response:** Correct the JCL and resubmit the job.

---

Chapter 10. Troubleshooting 289
GGC3774E  The REMOVE_AND_ADD_TABLES keyword has already been coded for this run.

Explanation:  The REMOVE_AND_ADD_TABLES keyword has already been coded for this run.

User response:  Correct the JCL and resubmit the job.

GGC3775E  Both the ACCEL_ADD_TABLES and ACCEL_REMOVE_AND_ADD_TABLES keywords are present.

Explanation:  The ACCEL_ADD_TABLES and ACCEL_REMOVE_AND_ADD_TABLES keywords are mutually exclusive. Specify only one of these parameters.

User response:  Correct the JCL and resubmit the job.

GGC3792E  The CHECK_DATA keyword has already been coded.

Explanation:  You specified the CHECK_DATA keyword more than once.

User response:  The CHECK_DATA keyword can be specified only once. Remove the extra CHECK_DATA keyword specification(s) and resubmit the job.

GGC3793E  The CHECK_DATA value has no contents.

Explanation:  You specified the CHECK_DATA parameter without a value.

User response:  Specify a valid value for the CHECK_DATA parameter.

GGC3794E  The CHECK_DATA parameter specified is invalid.

Explanation:  You specified an invalid value for the CHECK_DATA parameter.

User response:  Specify a valid value for the CHECK_DATA parameter. Valid values are N (do not check data page integrity), O (check data page integrity both before and after each log apply operation and before writing out a data page), and W (check data page integrity before writing a page). The default value for this field is W. Correct the JCL and resubmit the job.

GGC3795E  The control file contains duplicate BDS dataset names.

Explanation:  There are duplicate BDS data set names specified in the control file.

User response:  Edit the control file to remove the duplicate BDS data set names.

GGC3796E  The Call Attach Facility returned an error. Message text follows:

Explanation:  There are duplicate BDS data set names specified in the control file.

User response:  Edit the control file to remove the duplicate BDS data set names.

GGC3799E  The XLAT_IN_VOLUME keyword has already been coded.

Explanation:  You specified the XLAT_IN_VOLUME keyword more than once.

User response:  Correct the JCL and resubmit the job.

GGC3801E  The conversion program returned an error.

Explanation:  This message is the header line for additional messages that follow.

User response:  No action is required.

GGC3802E  The Db2 Change Accumulation Tool row conversion program ended unexpectedly.

Explanation:  An error occurred in the Db2 Change Accumulation Tool row conversion program.

User response:  This message is accompanied by related messages that provide more information about the issue. If you cannot resolve the issue, note the job return code and contact IBM Software Support.

GGC3803E  The cellpool services get function returned an error.

Explanation:  An internal error occurred during memory management operations.

User response:  Contact IBM Software Support.

GGC3804E  The input image copy can only contain one table.

Explanation:  The input image copy you specified contains more than one table.

User response:  Correct the JCL and resubmit the job.
GGC3805E  Error start Image Copy reader.
Explanation:  The image copy reader component was not found in the loadlib concatenation.
User response:  Contact IBM Software Support.

GGC3814E  The SVC instruction failed to add candidate volumes
Explanation:  When performing WTV or OBIDXLAT operation, SVC instruction failed to add candidate volumes to the target VSAM data sets.
User response:  Contact IBM Software Support.

GGC3815E  The allocation of IDCAMS output DDNAME failed
Explanation:  Change Accum tries to dynamically allocate the DDName GGCxIDOU where x is an integer. The allocations are used for IDCAMS output when adding candidate volumes to the target VSAM data set. The allocation failed with a reason code.
User response:  Verify there are no name conflicts in job. Contact IBM Software Support.

GGC3816E  The allocation of IDCAMS input DDNAME failed
Explanation:  Change Accum tries to dynamically allocate the DDName GGCxIDIN where x is an integer. The allocations are used for IDCAMS input when adding candidate volumes to the output target VSAM data set. The allocation failed with a reason code.
User response:  Verify there are no name conflicts in job. Contact IBM Software Support.

GGC3817E  Open failed for IDCAMS output DDNAME
Explanation:  Change Accum tries to open the DDName GGCxIDOU where x is an integer. The open are used for read output from IDCAMS when adding candidate volumes to the output target VSAM data set. The open failed with a reason code.
User response:  Verify there are no name conflicts in job. Contact IBM Software Support.

GGC3818E  Open failed for IDCAMS input DDNAME
Explanation:  Change Accum tries to open the DDName GGCxIDIN where x is an integer. The open is used for input to IDCAMS when adding candidate volumes to the output target VSAM data set. The open failed with a reason code.
User response:  Verify there are no name conflicts in job. Contact IBM Software Support.

GGC3819E  IDCAMS called failed when processing ALTER volume functions
Explanation:  IDCAMS failed to add candidate volumes to the target VSAM data sets.
User response:  Check out for output and reason codes from IDCAMS. Contact IBM Software Support.

GGC3832E  The XLAT_DROPPED_RECOVER keyword has already been coded for this run.
Explanation:  Duplicate keyword.
User response:  Correct the JCL and resubmit the job.

GGC3833E  The XLAT_DROPPED_RECOVER keyword should be coded only with SOURCE=TARGET SSIDs.
Explanation:  This keyword requires the source and target to be the same Db2 subsystem.
User response:  Correct the JCL and resubmit the job.

GGC3834E  The XLAT_DROPPED_RECOVER keyword should be coded only with DATA_BASE keyword.
Explanation:  XLAT_DROPPED_RECOVER requires you to use the DATA_BASE keyword.
User response:  Correct the JCL and resubmit the job.

GGC3835E  The XLAT_DROPPED_RECOVER keyword cannot be coded in TO_CURRENT mode.
Explanation:  XLAT_DROPPED_RECOVER cannot be used with the TO_CURRENT end point.
User response:  Correct the JCL and resubmit the job.

GGC3836E  The XLAT_DROPPED_RECOVER keyword should be coded with XLAT_IN values.
Explanation:  XLAT_DROPPED_RECOVER requires you to use one of the XLAT_IN control cards.
User response:  Correct the JCL and resubmit the job.

GGC3837I  The XLAT_DROPPED_RECOVER mode is on for /DATABASE NAME/SPACE NAME/CHANGE ACCUM will fetch needed data from target object.
Explanation:  The XLAT_DROPPED_RECOVER keyword has specified the database from which data will be fetched.

Chapter 10. Troubleshooting  291
GCG3838E  The DB2_SORT keyword has already been coded for this run.

Explanation: You specified the DB2_SORT keyword multiple times. This keyword can be specified only once for the job.

User response: Correct the JCL and resubmit the job.

GCG3839E  The DB2_SORT keyword was specified, but no value was found.

Explanation: You specified the DB2_SORT keyword, but no value was specified with it. A value of YES or NO is required.

User response: Correct the JCL and resubmit the job.

GCG3840E  The DB2_SORT parameter value is invalid.

Explanation: You specified the DB2_SORT keyword, but an incorrect value or no value was specified with it. A value of YES or NO is required.

User response: Correct the JCL and resubmit the job.

GCG3841I  Number of pages passed to the accelerator(s)=

Explanation: Number of pages that were passed to the accelerator or accelerators.

User response: None required.

GCG3850E  CHANGE ACCUM encryption key retrieving module returned rc =return_code.

Explanation: The specified error occurred during encryption key retrieval.

User response: Contact IBM Software Support.

GCG3901E  Error allocate DD rc=returncode
rs=reasoncode

Explanation: Data set allocation processing in preparation for flash copy operations failed.

User response: Contact IBM Software Support.

GCG3902E  Error deallocate DD rc=returncode
rs=reasoncode

Explanation: Data set deallocation after flashcopy processing completion failed.

User response: Contact IBM Software Support.

GCG3903E  Error set estae DD rc=returncode
rs=reasoncode

Explanation: Error trap setup failed in z/OS function call.

User response: Contact IBM Software Support.

GCG3904E  Error open DD rc=returncode
rs=reasoncode

Explanation: Working data set open failure during flashcopy overall operation.

User response: Contact IBM Software Support.

GCG3905E  Error close DD rc=returncode
rs=reasoncode

Explanation: Working data set close failure during overall flashcopy operation.

User response: Contact IBM Software Support.

GCG3906E  Error ATTACH module rc=returncode

Explanation: The DSNUTILB flashcopy function call failed.

User response: Contact IBM Software Support.

GCG3907E  Error open the DSNUTILB STEPLIB

Explanation: DSNUTILB could not be found in the STEPLIB concatenation.

User response: Verify //STEPLIB validity or contact IBM Software Support.

GCG3908I  flash copy start

Explanation: The flashcopy operation requested has begun.

User response: No action is required.

GCG3909I  flash copy complete rc=returncode

Explanation: Normal termination indication from flashcopy function call.

User response: No action is required.

GCG3910E  DSNUTILB error rc=returncode

Explanation: Error indication from DSNUTILB flashcopy function call.

User response: Contact IBM Software Support.
GGC391I Start flash copy result output.
Explanation: Flashcopy function call results follow.
User response: No action is required.

GGC3912I Flash copy result output complete.
Explanation: Flashcopy operations complete.
User response: No action is required.

GGC4000E Unrecognized function symbol ...
Explanation: The Media Manager driver requested the wrong function to run.
User response: Contact IBM Software Support.

GGC4001E Invalid call parameter count.
Explanation: A program error occurred.
User response: Contact IBM Software Support.

GGC4002E Invalid call parameter value.
Explanation: A program error occurred.
User response: Contact IBM Software Support.

GGC4003E Error to load rebuild indexes module.
Explanation: An environment error occurred.
User response: Verify that the product was installed correctly and that enough storage is available.

GGC4004I Log apply thread error detected. Cancelling in process.
Explanation: A processing error occurred.
User response: Review the job output for errors.

GGC4005I Starting cancel process, reason log apply thread RC = <reason_code>.
Explanation: A processing error occurred.
User response: Review the job output for errors.

GGC4006I Starting cancel process, reason log apply thread RC = <reason_code>.
Explanation: A processing error occurred.
User response: Review the job output for errors.

GGC4007E Program error, rebuild indexes thread not yet started. Cancelling in process.
Explanation: A program error occurred.
User response: Contact IBM Software Support.

GGC4008I Rebuild indexes thread create error RC = <reason_code>.
Explanation: An environment error occurred.
User response: Review the job output for errors.

GGC4009E Rebuild indexes thread failed to start RC = <reason_code>.
Explanation: An environment error occurred.
User response: Review the job output for errors.

GGC4010E Unable to release rebuild indexes module.
Explanation: An environment error occurred.
User response: Review the job output for errors.

GGC4011E Error, could not get temporary file name.
Explanation: An environment error occurred.
User response: Review the job output for errors.

GGC4012E Error, could not create external link to key sort module.
Explanation: An environment error occurred.
User response: Review the job output for errors.

GGC4013E Program error, unexpected state detected.
Explanation: A program error occurred.
User response: Contact IBM Software Support.

GGC4100A Parameters with the DB2 SSID and PLAN name must be passed to Change Accum.
Explanation: Parameters such as SSID and PLAN name must be defined within the Change Accum control file.
User response: Define the DB2 SSID parameters to the Change Accum Tool User Settings, using option 0 from the main menu.
Parameters with the DB2 SSID and PLAN name must be passed to Change Accum.

Explanation: Parameters such as SSID and PLAN name must be defined within the Change Accum control file.

User response: Define the DB2 SSID parameters to the Change Accum Tool User Settings, using option 0 from the main menu.

The table space 'db_name.ts_name' does not exist in the DB2 catalog.

Explanation: The table space specified in the Change Accum JCL does not exist in the Db2 catalog.

User response: Correct the JCL and resubmit the job.

Partition part_num was specified for 'db_name.ts_name' but the space is non-partitioned or the partition is not defined.

Explanation: A partition was specified for a non-partitioned table space or the partition is not defined.

User response: Correct the Change Accum JCL and resubmit the job.

Invalid syntax. Not allowed keyword 'word1'. Expected 'word2 word3 ...'.

Explanation: The syntax is not valid.

User response: Correct the JCL and resubmit the job.

Invalid syntax. Keyword keyword not allowed.

Explanation: The syntax is not valid.

User response: Correct the JCL and resubmit the job.

The PARTITION parameter is invalid.

Explanation: The PARTITION parameter is invalid.

User response: Verify that the PARTITION parameter has been properly specified in your JCL.

The SPACE_THREAD parameter is invalid.

Explanation: The SPACE_THREAD parameter is invalid.

User response: Verify that the SPACE_THREAD parameter has been properly specified in your JCL.

The PART_THREAD parameter is invalid.

Explanation: The PART_THREAD parameter is invalid.

User response: Verify that the PART_THREAD parameter has been properly specified in your JCL.

Invalid INDEX_THREAD parameter, decimal expected.

Explanation: The INDEX_THREAD parameter is invalid.

User response: Verify that the INDEX_THREAD parameter has been properly specified in your JCL.

A DB.TS pair is incomplete.

Explanation: The DB.TS pair you specified is incomplete.

User response: Verify that all DB.TS pairs have been specified correctly. Correct the JCL and resubmit the job.

Operations on the DB2 directory are not allowed.

Explanation: Indexes cannot be rebuilt on the Db2 directory table spaces.

User response: No action is required.

Operations on the DB2 Catalog table space DSNDB06.SYSCOPY are not allowed.

Explanation: Indexes cannot be rebuilt on Db2 Catalog table spaces.

User response: No action is required.
GGC4140S  The subsystem ID must be a valid DB2 subsystem name.
Explanation: You specified an invalid subsystem ID.
User response: Verify the subsystem ID.

GGC4141S  The plan name must be a valid DB2 plan name.
Explanation: You specified an invalid plan name.
User response: Verify the plan name.

GGC4142S  Error connecting to DB2 SSID ssid RC = rc
Explanation: The program could not connect to the DB2 subsystem. The return code returned from the Call Attach Facility is listed in the message.
User response: Refer to the message returned by the Call Attach Facility listed in message GGC4151I.

GGC4143S  Error opening plan plan_name RC = rc
Explanation: The program could not open specified plan. The return code returned from the Call Attach Facility is listed in the message.
User response: Refer to the message returned by the Call Attach Facility listed in message GGC4151I.

GGC4144S  Error disconnecting from DB2 SSID ssid RC = rc
Explanation: The program could not disconnect from the DB2 subsystem. The return code returned from the Call Attach Facility is listed in the message.
User response: Refer to the message returned by the Call Attach Facility listed in message GGC4151I.

GGC4145S  CAF request can not be completed.
Explanation: The program could not complete a CAF request.

GGC4146A  SQL request can not be completed.
Explanation: The program could not complete an SQL request.
User response: Refer to messages GGC4154I, GGC4155I, and GGC4156I for additional information and consult with your systems programmer.

GGC4147I  The attempt to reset the RBDP flag returned an error
Explanation: Db2 Change Accumulation Tool was unable to reset the Rebuild pending status for object specified in your job.
User response: Check the output for DSNUTILB error messages and consult with your systems programmer. Contact IBM Software Support.

GGC4150I  The version of DB2 subsystem ssid is ver.
Explanation: Displays the SSID and the version of the Db2 subsystem.
User response: No action is required.

GGC4151I  CAF reason codes = 'rc1,rc2'.
Explanation: This diagnostic message indicates a Db2 CAF request failure.

GGC4152I  message_text
Explanation: This message is used to hold text message information.
User response: No action is required.

GGC4154I  Pgm: modulename Stmt: stmtnum Type: 'SQL type name' Code: sqlcode
Explanation: This diagnostic message indicates a Db2 SQL request failure.

GGC4155I  message_text
Explanation: This message is used to hold text message information.
User response: No action is required.

GGC4162E  The SYSINGGC DD card could not be opened for input.
Explanation: The SYSINGGC DD data set specified in the JCL could not be opened for input.
User response: Verify that the SYSINGGC DD is not being accessed by other resources and resubmit the job.
The SYSINGGC DD input stream is empty.
Explanation: No control cards appear in the instream file or the input data set.
User response: Correct the JCL and resubmit the job.

The command set must end with a close parenthesis ")".
Explanation: There is no close parenthesis following the Change Accum input cards.
User response: Enter a close parenthesis following the Change Accum input cards.

The parsing process gave an invalid return code.
Explanation: There is an error in your Change Accum JCL.
User response: Correct the JCL and resubmit the job.

A data set allocation failure occurred.
Explanation: The program could not allocate specified data set. The data set is listed in the message.
User response: Specify a different image copy data set name.

A dataset write failure occurred.
Explanation: The program could not write specified data set. The data set is listed in the message.
User response: Specify a different image copy data set name.

The FULL image copy DD CA(LP/LB/RP/RB) {1} refers to a DSNAME already in SYSCOPY.
Explanation: You specified a full image copy data set name that already exists in SYSCOPY.
User response: Verify that the JCL is formatted correctly and contains the necessary information for your Change Accum job.

The FULL image copy DD CA(LP/LB/RP/RB) {1} is missing from the JCL.
Explanation: The full image copy data set is not included in your Change Accum JCL.
User response: Verify that the JCL is formatted correctly and contains the necessary information for your Change Accum job.

A data set close failure occurred.
Explanation: The program could not close specified data set. The data set is listed in the message.
User response: The data set name is listed in message GGC4210I. The DD name is listed in message GGC4211I. Contact IBM Software Support.

A dataset write failure occurred.
Explanation: The program could not write specified data set. The data set is listed in the message.
User response: The data set name is listed in message GGC4210I. The DD name is listed in message GGC4211I. Contact IBM Software Support.

A data set deallocation error occurred.
Explanation: The program could not deallocate specified data set. The data set is listed in the message.
User response: The data set name is listed in message GGC4210I. The DD name is listed in message GGC4211I. Refer to messages GGC4213I for any dynamic allocation return codes and contact IBM Software Support.

A data set open failure occurred.
Explanation: The program could not open specified data set. The data set is listed in the message.
User response: The data set name is listed in message GGC4210I. The DD name is listed in message GGC4211I. Contact IBM Software Support.

A data set close failure occurred.
Explanation: The program could not close specified data set. The data set is listed in the message.
User response: The data set name is listed in message GGC4210I. The DD name is listed in message GGC4211I. Contact IBM Software Support.

Each CAxxxxDD correlates to each SPACE(...) control card group.
Explanation: Each CAXxxx DD statement must be associated with a corresponding SPACE(...) control card group.
User response: Verify that the JCL is formatted correctly and that each CAXxxx DD statement is associated with a SPACE(...) control card group.
GGC4213I Dynamic allocation return codes = 'rc'.

Explanation: This diagnostic message indicates data set allocation failure.

User response: Diagnose the problem using the return code. Refer to the z/OS MVS Programming: Authorized Assembler Service Guide (SA23-1371) for more information.

GGC4215I Object: Database db_name Indexspace is_name Partition part_num IBackup'site'

Explanation: This message, in conjunction with messages GGC2101I, GGC2102I, or GGC4216I indicates the database affected by the condition described in the associated message.

User response: No action is required.

GGC4216I DSN: data_set_name LRSN/RBA: X'xxxxxxxxxxxx'

Explanation: This message, in conjunction with messages GGC2101I, GGC2102I, or GGC4215I indicates the data set name affected by the condition described in the associated message.

User response: No action is required.

GGC4220E An VSAM allocate failure occurred.

Explanation: The program could not allocate specified data set. The data set is listed in the message.

User response: The data set is listed in message GGC4236I. Refer to message GGC4238I for any dynamic allocation return codes and consult with your systems programmer. Refer to the z/OS MVS Programming: Authorized Assembler Service Guide (SA23-1371) for more information.

GGC4221E An VSAM allocate failure occurred. Data set is locked.

Explanation: The program could not allocate specified data set because it is locked by other program. The data set is listed in the message.

User response: The data set is listed in message GGC4236I.

GGC4222E An VSAM allocate failure occurred. Data set is absent.

Explanation: The program could not allocate specified data set because it is absent. The data set is listed in the message.

User response: The data set is listed in message GGC4236I.

GGC4223E A VSAM deallocation error occurred.

Explanation: The program could not deallocate specified data set. The data set is listed in the message.

User response: The data set is listed in messages GGC4236I and GGC4237I. Contact IBM Software Support.

GGC4224E A VSAM open failure occurred.

Explanation: The program could not open specified data set. The data set is listed in the message.

User response: The data set is listed in messages GGC4236I and GGC4237I. Contact IBM Software Support.

GGC4225E A VSAM close failure occurred.

Explanation: Explanation: The program could not close specified data set. The data set is listed in the message.

User response: The data set is listed in messages GGC4236I and GGC4237I. Contact IBM Software Support.

GGC4226E A VSAM read failure occurred.

Explanation: The program could not read specified data set. The data set is listed in the message.

User response: The data set is listed in message GGC4236I. Contact IBM Software Support.

GGC4227E A VSAM write failure occurred.

Explanation: The program could not write specified data set. The data set is listed in the message.

User response: The data set is listed in message GGC4236I. Contact IBM Software Support.

GGC4230E A VSAM random read failure occurred.

Explanation: The program could not read specified data set. The data set is listed in the message.

User response: The data set is listed in message GGC4236I. Contact IBM Software Support.

GGC4232E A VSAM fetch failure occurred.

Explanation: The program could not fetch specified data set. The data set is listed in the message.

User response: The data set is listed in message GGC4236I. Contact IBM Software Support.
<table>
<thead>
<tr>
<th>Document Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC4236I</td>
<td>data_set_name Explanation: This message is used to hold data set name information. User response: No action is required.</td>
</tr>
<tr>
<td>GGC4237I</td>
<td>DD_name Explanation: This message is used to hold DD name information. User response: No action is required.</td>
</tr>
<tr>
<td>GGC4238I</td>
<td>Dynamic allocation return code = 'rc'. Explanation: This diagnostic message indicates data set allocation failure. User response: Diagnose the problem using the return code. For information about the dynamic allocation return codes received, see the z/OS MVS Programming: Authorized Assembler Service Guide (SA22-7608).</td>
</tr>
<tr>
<td>GGC4260E</td>
<td>An allocate failure occurred on the key sort module. Explanation: The program could not allocate temporary data set. User response: Refer to message GGC4271I for any dynamic allocation return codes and consult with your systems programmer. Refer to the z/OS MVS Programming: Authorized Assembler Service Guide (SA22-1371) for more information.</td>
</tr>
<tr>
<td>GGC4261E</td>
<td>The table space 'db_name.ts_name' partition part_num has an unknown status. Explanation: Change Accum ensures that the indicated space is stopped before proceeding with the rebuild index process by issuing a call similar to a -DISPLAY DATABASE command. This message displays when the status is not equal to 'RO', 'RW', or 'UT'. User response: Stop the indicated space before attempting to proceed with the rebuild index process.</td>
</tr>
<tr>
<td>GGC4262E</td>
<td>The status check for table space db_name.ts_name partition part_num timed out. Explanation: Before index processing can occur, Change Accum must attempt to stop the spaces involved. However, if an in-flight URID is processing and the object is stopped, the status changes to 'STOP', or Stop Pending until the URID finishes. It may also take Db2 some time to flush the buffers. In either case, Change Accum checks the spaces before beginning any index processing. If any of the spaces are not stopped, Change Accum waits a few seconds and checks again. After several checks, it will abort processing and issue this message. User response: Diagnose why the space will not stop.</td>
</tr>
<tr>
<td>GGC4263E</td>
<td>The ENQ for table space db_name.ts_name partition part_num was not successful. Explanation: Indicates the database and partition for which the ENQs did not complete successfully. User response: Diagnose why the space won't enqueued.</td>
</tr>
<tr>
<td>GGC4264E</td>
<td>The index space 'db_name.is_name' partition part_num has an unsupported type and will be skipped. Explanation: Change Accum ensures that the indicated space is stopped before proceeding with the rebuild indexes process by issuing a call similar to a -DISPLAY DATABASE command. This message displays when the status is not equal to 'RO', 'RW', or 'UT'. User response: No action is required.</td>
</tr>
<tr>
<td>GGC4272I</td>
<td>An invalid return code was detected from the SORT program. Explanation: Db2 Change Accumulation Tool encountered an invalid return code from the SORT program. User response: Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC4273I</td>
<td>The index space 'db_name.is_name' belongs to a non-partitioned index and will be skipped. Explanation: A partition was specified for a index space, but it is a non-partitioned index. User response: No action is required.</td>
</tr>
</tbody>
</table>
GGC4370I The table space 'db_name.ts_name'
partition part_num beginning ofloading keys.

Explanation: Change Accum is starting to read the
specified table space partition to generate index keys.

User response: No action is required.

GGC4371I The table space 'db_name.ts_name'
partition part_num keys are being
offloaded.

Explanation: Change Accum has finished reading the
specified table space partition and generating index
keys.

User response: No action is required.

GGC4372 INFO_ROWK_BEGIN_IS

Explanation:

User response:

GGC4373I The index space 'db_name.is_name'
partition part_num is being rebuilt.

Explanation: Change Accum has finished sorting the
index keys and generating the specified index space.

User response: No action is required.

GGC4374I The table space 'db_name.ts_name'
partition part_num is empty and will be
skipped.

Explanation: The specified table space partition has no
one table or index.

User response: No action is required.

GGC4375I The index space db_name.ts_name
partition part_num is ICOPY pending.

Explanation: The specified index space partition has
the informational copy pending status.

User response: No action is required.

GGC4380E The index space 'db_name.is_name'
partition part_num has an unknown
status.

Explanation: This message ensures that the indicated
space is to be stopped before proceeding with the
rebuild indexes process. Change Accum checks the
space with a call similar to a 'display db(db_name)
spacenam(is_name) part(part_num)' to verify that the
space is in 'stop' status. This message displays when
the database comes back with a status not equal to
'RO', 'RW', or 'UT'.

User response: Stop the indicated space before
attempting to proceed with the rebuild indexes process.

GGC4381E The status check for index space
'db_name.is_name' partition part_num
 timed out.

Explanation: This message is output when GGC tries
to start and it has to ensure that when doing rebuild
indexes processing that the index spaces are indeed
stopped. The stop step that is generated (prior to GGC)
to do this sends commands to Db2 to stop the data
sets, but it does not wait for the index spaces to
actually stop. If an in-flight URID is processing against
the object and the stop is done, the space changes to
'STOP' or stop pending until the URID finishes. It may
also take Db2 some time to flush buffers. In either case,
GGC does a check on the spaces before doing any real
processing. If any of the spaces don't come back 'STOP',
it waits a few seconds and checks again. After a few
checks like this, it aborts, producing this message.

User response: Diagnose why the space will not stop.

GGC4400E The attempt to recreate the underlying
VSAM data set returned an error.

Explanation: Db2 Change Accumulation Tool was
unable to create the VSAM file for object specified in
your Change Accum job.

User response: Check the output for IDCAMS error
messages and consult with your systems programmer.
Contact IBM Software Support.

GGC4401E An allocate failure occurred.

Explanation: The program could not allocate a
temporary data set.

User response: Refer to message GGC4411I for any
dynamic allocation return codes and consult with your
systems programmer. Refer to the z/OS MVS
Programming: Authorized Assembler Service Guide
(SA23-1371) for more information.

GGC4403E An deallocate failure occurred.

Explanation: The program could not deallocate
temporary data set. The data set is listed in the
message.

User response: The data set is listed in messages
GGC4410I. Contact IBM Software Support.

GGC4404E An open failure occurred.

Explanation: The program could not open temporary
data set. The data set is listed in the message.

User response: The data set is listed in messages
GGC4410I. Contact IBM Software Support.

Chapter 10. Troubleshooting 299
<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Explanation</th>
<th>User response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC4404E</td>
<td>A close failure occurred.</td>
<td>The program could not close temporary data set. The data set is listed in the message.</td>
<td>The data set is listed in messages GGC4410I. Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC4405E</td>
<td>A write failure occurred.</td>
<td>The program could not write temporary data set. The data set is listed in the message.</td>
<td>The data set is listed in message GGC4410I. Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC4406E</td>
<td>An invalid or incompatible data set name was specified.</td>
<td>The specified data set name can not be used for VSAM access to Db2 data set. The data set name is listed in the message.</td>
<td>The data set name is listed in message GGC4412I. Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC4410I</td>
<td>DD_name</td>
<td>This message is used to hold DD name information.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC4411I</td>
<td>Dynamic allocation return code = 're'.</td>
<td>This diagnostic message indicates a data set allocation failure.</td>
<td>Diagnose the problem using the return code. Refer to the z/OS MVS Programming: Authorized Assembler Service Guide (SA23-1371) for more information.</td>
</tr>
<tr>
<td>GGC4412I</td>
<td>data_set_name</td>
<td>This message is used to hold data set name information.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC4500E</td>
<td>Dynamic allocation return code = code</td>
<td>There was a problem opening the XML_TEMPLATE_DSN data set.</td>
<td>Check that XML_TEMPLATE_DSN data set exists and that this parameter was specified correctly.</td>
</tr>
<tr>
<td>GGC4501E</td>
<td>An XML update job is needed, but the XML output DSN is missing.</td>
<td>The XML output DSN was not specified.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC4502E</td>
<td>An XML update job is needed, but the XML output prefix is missing.</td>
<td>The XML output prefix was not specified.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC4503E</td>
<td>An XML update job is needed, but the XML template DSN is missing.</td>
<td>The XML template DSN was not specified in the JCL.</td>
<td>Correct the JCL and resubmit the job.</td>
</tr>
<tr>
<td>GGC4504E</td>
<td>The XML template data set could not be allocated.</td>
<td>Db2 Change Accumulation Tool was unable to allocate the required DSN.</td>
<td>Verify that the DSN exists and is accessible.</td>
</tr>
<tr>
<td>GGC4505E</td>
<td>Control file loadlib information could not be obtained for ssid</td>
<td>The control file is not up to date for the indicated Db2 SSID.</td>
<td>Update the control file using main menu option 0. Setup.</td>
</tr>
<tr>
<td>GGC4506E</td>
<td>The XML template data set could not be opened.</td>
<td>The data set was allocated but could not be opened.</td>
<td>Contact IBM Software Support.</td>
</tr>
<tr>
<td>GGC4507E</td>
<td>The XML job output data set/member could not be allocated.</td>
<td>The supplied data set could not be allocated.</td>
<td>Verify that sufficient authority exists to allocate the data set.</td>
</tr>
<tr>
<td>GGC4508E</td>
<td>The XML job output data set/member could not be opened.</td>
<td>The data set was allocated but could not be opened.</td>
<td></td>
</tr>
<tr>
<td>Error Code</td>
<td>Description</td>
<td>User Response</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------</td>
<td></td>
</tr>
<tr>
<td>GGC4509E</td>
<td>The XML template does not conform to the automatically generated guidelines.</td>
<td>Verify that sufficient access authority exists.</td>
<td></td>
</tr>
<tr>
<td>GGC4510I</td>
<td>XML update job created for SSID='ssid'.</td>
<td>Regenerate the XML template.</td>
<td></td>
</tr>
<tr>
<td>GGC4511E</td>
<td>The XML template member does not exist in the PDS.</td>
<td>Verify that the XML template exists in the XML template PDS.</td>
<td></td>
</tr>
<tr>
<td>GGC4600E</td>
<td>Unrecognized function symbol symbol</td>
<td>Contact IBM Software Support.</td>
<td></td>
</tr>
<tr>
<td>GGC4601E</td>
<td>Failed to get the number of physical fragments. The MMGR driver call</td>
<td>Contact IBM Software Support.</td>
<td></td>
</tr>
<tr>
<td>GGC4602E</td>
<td>Incorrect input: SpaceType = char char hex</td>
<td>Contact IBM Software Support.</td>
<td></td>
</tr>
<tr>
<td>GGC4603E</td>
<td>Incorrect input: DSSIZE = dssize</td>
<td>Contact IBM Software Support.</td>
<td></td>
</tr>
<tr>
<td>GGC4604E</td>
<td>Incorrect input: PageSize = pagesize</td>
<td>Contact IBM Software Support.</td>
<td></td>
</tr>
<tr>
<td>GGC4605E</td>
<td>Incorrect input: SpecifiedPriQTY = priqty</td>
<td>An invalid primary allocation size was specified.</td>
<td></td>
</tr>
<tr>
<td>GGC4606E</td>
<td>Incorrect input: SpecifiedPriQTYCylinders = cylinders</td>
<td>An invalid primary allocation size was specified.</td>
<td></td>
</tr>
<tr>
<td>GGC4607E</td>
<td>Incorrect input: SpecifiedSecQTY = secqty</td>
<td>An invalid value for the secondary allocation size was specified.</td>
<td></td>
</tr>
<tr>
<td>GGC4608E</td>
<td>Incorrect input: SpecifiedSecQTYCylinders = cylinders</td>
<td>An invalid value was specified for the data set secondary allocation size.</td>
<td></td>
</tr>
<tr>
<td>GGC4609E</td>
<td>Incorrect input: TSQTY = tsqty</td>
<td>An invalid value was specified for the primary allocation quantity for the table space.</td>
<td></td>
</tr>
<tr>
<td>GGC4610E</td>
<td>Incorrect input: IXQTY = ixqty</td>
<td>An invalid value was specified for the primary allocation quantity for the index space.</td>
<td></td>
</tr>
<tr>
<td>GGC4611E</td>
<td>The dataset data set has reached the maximum size size GB. There is no more space available.</td>
<td>Recreate the object with a larger data set size.</td>
<td></td>
</tr>
<tr>
<td>GGC4612E</td>
<td>Failed to open dataset data set Could not allocate buffer area (RC = rc, SYSRC = sysrc, SYSRSN = sysrsn).</td>
<td>An error occurred during the allocation of a pagefixed buffer.</td>
<td></td>
</tr>
</tbody>
</table>
GGC4613E  Failed to open dataset data set. Could not fix buffering area (RC = rc, RSN = rsn).
Explanation: An error occurred when allocating the paged fixed buffer.
User response: Contact IBM Software Support.

GGC4614E  Failed to open dataset data set. The MMGR driver RC = rc
Explanation: An error occurred when opening the data set for an object.
User response: Contact IBM Software Support.

GGC4615E  Failed to write data in dataset data set.
            RC = rc, RSN = rsn, MMGR RC = rc,
            MMGR RSN = rsn
Explanation: An internal error occurred when attempting to write data to the indicated data set.
User response: Contact IBM Software Support.

GGC4616E  Failed to close dataset data set. RC = rc
Explanation: The indicated data set could not be closed.
User response: Contact IBM Software Support.

GGC4617E  The buffering area pointer is NULL on close before deallocation of dataset data set
Explanation: The pointer to the allocated memory was corrupted.
User response: Contact IBM Software Support.

GGC4618E  The buffering area not unfixed on close before deallocation of dataset data set
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC4619E  The buffering area not freed on close before deallocation of dataset data set
            RC = rc, SYSRC = sysrc, SYSRSN = sysrsn
Explanation: The allocated memory can't be freed.
User response: Contact IBM Software Support.

GGC4620E  The connection pointer is NULL before read from dataset.
Explanation: Incorrect connection pointer initialization value.
User response: Contact IBM Software Support.

GGC4621E  The buffering area pointer is NULL before read from dataset.
Explanation: The buffering area was not initialized correctly.
User response: Contact IBM Software Support.

GGC4622E  The read/write buffer size is 0 before read from dataset.
Explanation: There is no allocated memory.
User response: Contact IBM Software Support.

GGC4623E  The buffering area size size bytes is not enough to store read/write buffer size size bytes.
Explanation: The buffering area is insufficient to store all of the data.
User response: Contact IBM Software Support.

GGC4624E  The read/write buffer pointer is NULL.
Explanation: The pointer to the allocated buffer area was corrupted.
User response: Contact IBM Software Support.

GGC4625E  Failed to read data from dataset data set.
            RC = rc, RSN = rsn, MMGR RC = rc,
            MMGR RSN = rsn
Explanation: An error occurred while reading data from the data set.
User response: Contact IBM Software Support.

GGC4626W  EOF reached at read from dataset data_set_name. Number of bytes read data_size
Explanation: An error occurred during the read process. The end of data set was reached while reading data.
User response: Contact IBM Software Support.

GGC4627E  The connection pointer is NULL before write to dataset.
Explanation: The connection pointer initialization value is invalid.
User response: Contact IBM Software Support.

GGC4628E  The buffering area pointer is NULL before write to dataset.
Explanation: The buffering area was not initialized correctly.
User response: Contact IBM Software Support.
User response: Contact IBM Software Support.

GGC4629E The read/write buffer size is 0 before write to dataset.
Explanation: There is insufficient allocated memory.
User response: Contact IBM Software Support.

GGC4630E Failed to write data to dataset data set RC = rc, RSN = rsn, MMGR RC = rc, MMGR RSN = rsn
Explanation: An error occurred while writing data to the data set.
User response: Contact IBM Software Support.

GGC4650E The XLAT_IN_VOLUME keyword has already been coded.
Explanation: You specified the XLAT_IN_VOLUME keyword more than once.
User response: Correct the JCL and resubmit the job.

GGC4651E Invalid XLAT_IN_VOLUME syntax.
Explanation: The XLAT_IN_VOLUME syntax you specified is not valid.
User response: Correct the JCL and resubmit the job.

GGC4652E The XLAT_IN_VOLUME parameter was specified, but no value was found with it.
Explanation: The XLAT_IN_VOLUME parameter requires that a volume id value be specified with it.
User response: Specify a volume id value. Enclose the value in single quotes.

GGC4653W The XML job generation failed.
Explanation: An error occurred during the XML job generation step.
User response: Check the error messages in the system log or sysout and contact IBM Software Support.

GGC4998E ERR_UNEXPECTED
Explanation: An internal error occurred.
User response: Contact IBM Software Support.

GGC9001E Error func OPEN input DD REPLIB rc = returncode
Explanation: An error occurred when opening the report library DD concatenation.
User response: Correct the JCL and resubmit the job.

GGC9002E Error func CLOSE input DD REPLIB rc = returncode
Explanation: An error occurred when closing the report library DD concatenation.
User response: Correct the JCL and resubmit the job.

GGC9003E Error func enumerate members input DD REPLIB rc = returncode, rsn = reasoncode.
Explanation: An error occurred when enumerating load library members. Error from DESERV service.
User response: The load library is unusable. Recover the load library.

GGC9004E Error func STARTD rc = returncode, rsn = reasoncode
Explanation: An error occurred when starting a dialog. Error from IEWBIND service.
User response: Contact IBM Software Support.

GGC9005E Error func ENDD rc = returncode, rsn = reasoncode
Explanation: An error occurred when ending a dialog. Error from IEWBIND service.
User response: Contact IBM Software Support.

GGC9006E Error func CREATEW rc = returncode, rsn = reasoncode
Explanation: An error occurred when creating a work module. Error from IEWBIND service.
User response: Contact IBM Software Support.

GGC9007E Error func DELETEW rc = returncode, rsn = reasoncode
Explanation: An error occurred when deleting a work module. Error from IEWBIND service.
User response: Contact IBM Software Support.

GGC9008E Error func RESETW rc = returncode, rsn = reasoncode
Explanation: An error occurred when resetting a work module. Error from IEWBIND service.
User response: Contact IBM Software Support.
GGC9009E  Error func INCLUDE entry
ENTRY_NAME rc = returncode , rsn = reasoncode

Explanation: An error occurred when including an entry. Error from IEWBIND service.

User response: The load library member might be unusable. Recovery of the load library is required.

GGC9010E  Error func GETBUF rc = returncode

Explanation: An error occurred when obtaining storage. Error from IEWBIND service.

User response: Contact IBM Software Support.

GGC9011E  Error func FREEBUF rc = returncode

Explanation: An error occurred when freeing storage. Error from IEWBIND service.

User response: Contact IBM Software Support.

GGC9012E  Error func GETN get sections entry
ENTRY_NAME rc = returncode, rsn = reasoncode

Explanation: An error occurred when enumerating sections in entry. Error from IEWBIND service.

User response: The load library member might be unusable. Recovery of the load library is required.

GGC9013E  Warning func GETN no sections entry
ENTRY_NAME rc = returncode, rsn = reasoncode

Explanation: An error occurred when enumerating sections in entry. Error from IEWBIND service. No sections was found.

User response: The load library member might be unusable. Recovery of the load library is required.

GGC9014E  Error func GETC get compile units entry
ENTRY_NAME rc = returncode, rsn = reasoncode

Explanation: An error occurred when enumerating compile units in entry. Error from IEWBIND service.

User response: The load library member might be unusable. Recovery of the load library is required.

GGC9015W  Warning func GETC no compile units entry
ENTRY_NAME rc = returncode, rsn = reasoncode

Explanation: An error occurred when enumerating compile units in entry. Error from IEWBIND service. No compile units was found.

User response: The load library member might be unusable. Recovery of the load library is required.
Chapter 10. Troubleshooting
<table>
<thead>
<tr>
<th>Message Code</th>
<th>Message Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGC9040I</td>
<td>Warning Entry &lt;name&gt;'s have TEST attribute set.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>The TEST attribute could not be set for an entry.</td>
</tr>
<tr>
<td>User response:</td>
<td>The load library member might be unusable. Recovery of the load library is required.</td>
</tr>
<tr>
<td>GGC9001E</td>
<td>An error occurred connecting to DB2 SSID &lt;sid&gt; in program &lt;program&gt; RC = &lt;rc&gt;.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>The specified program could not connect to the Db2 subsystem. The return code from the Call Attach Facility is listed in the message. The message returned by the Call Attach Facility is listed in message GGCB005I.</td>
</tr>
<tr>
<td>User response:</td>
<td>Review the GGCB005I message and the return code provided by the Call Attach Facility. Correct the problem and resubmit the job.</td>
</tr>
<tr>
<td>GGC9002I</td>
<td>The program &lt;program&gt; returned with RC=&lt;return_code&gt;.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>The program listed in the message returned the specified return code.</td>
</tr>
<tr>
<td>User response:</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC9003E</td>
<td>The routine &lt;routine&gt; returned RC=&lt;return_code&gt;.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>An error was detected during the build process by the listed routine. Additional messages provide details about the type of error.</td>
</tr>
<tr>
<td>User response:</td>
<td>Review additional messages to determine the nature of the problem.</td>
</tr>
<tr>
<td>GGC9004E</td>
<td>GETMAIN error; RC=&lt;rc&gt;</td>
</tr>
<tr>
<td>Explanation:</td>
<td>A program encountered a GETMAIN error while executing.</td>
</tr>
<tr>
<td>User response:</td>
<td>Increase the REGION size on the job card.</td>
</tr>
<tr>
<td>GGC9005I</td>
<td>message_text</td>
</tr>
<tr>
<td>Explanation:</td>
<td>This message displays information related to processing. It may be used to provide information to supplement other messages.</td>
</tr>
<tr>
<td>User response:</td>
<td>No action is required.</td>
</tr>
<tr>
<td>GGC9006I</td>
<td>Routine: &lt;routine_name&gt; additional_text</td>
</tr>
<tr>
<td>Explanation:</td>
<td>This message contains processing information about the routine in which an error occurred during the build process.</td>
</tr>
<tr>
<td>User response:</td>
<td>No action is required.</td>
</tr>
</tbody>
</table>
**GGCB011W** Unable to generate valid jobname; probable cause is no objects are selected

**Explanation:** There are no objects in the job. Either an object profile is included that contains no objects, or the objects that were included in the profile were also excluded.

**User response:** Ensure that at least one object is contained in the object profile.

**GGCB012I** Data set data_set_name; member name member_name.

**Explanation:** This informational message is associated with another GGCB message. It provides a data set name and member name.

**User response:** No action is required.

**GGCB013E** ISPF Environment and Services are not available; ISPF is required to execute a CLIST/REXX EXEC

**Explanation:** The ISPF environment is not available to execute a CLIST/REXX EXEC user exit. This environment is required for further processing.

**User response:** Contact IBM Software Support for assistance.

**GGCB014I** Calling GGC$EXUX to process exceptions user exits

**Explanation:** This informational message states that user exit is about to be processed.

**User response:** No action is required.

**GGCB015E** No RUNSTATS statistics were found for any objects.

**Explanation:** There were no RUNSTATS statistics in the Db2 catalog, Db2 shadow catalog, history tables, or Db2 Change Accumulation Tool repository (depending on the type of exception processing specified). Exception processing could not be performed.

**User response:** Run RUNSTATS to update the appropriate repository and resubmit the job.

**GGCB017E** package_list_type package name not set; use option 3 on the Setup panel to specify.

**Explanation:** Exception processing attempted to retrieve RUNSTATS statistics from the location specified in the Use Stats From field in the exception profile (refer to the description for message GGCB088I for additional details). However, the package list has not been defined on the corresponding PackageList field on the Setup panel.

**User response:** Access the Shared Profile Parameters panel via product Setup options and add the correct package list name for the type of statistics you want Db2 Change Accumulation Tool to use.

**GGCB018W** Multiple exception profiles found; the value for USE STATS FROM is taken from the first profile

**Explanation:** More than one exception profile was included in the job profile, and the exception profiles had different settings in the Use Stats from field.

**User response:** Db2 Shared Profile Support uses the statistics based on the Use Stats from field in the first exception profile processed. If this result is not what you expected, review and update your exception profiles.

**GGCB019W** CLUSTERRATIO|F exceptions are only applied to clustering indexes.

**Explanation:** An exception condition specified a CLUSTERRATIO or CLUSTERRATIO|F column. Only clustering indexes have valid CLUSTERRATIO|F values. Therefore, the CLUSTERRATIO|F exception conditions are only applied to clustering indexes. Non-clustering indexes are skipped.

**User response:** No action is required. If you expected a clustering index to be included in this job, review your object profiles and other included exception profiles to determine why the clustering index was not included.

**GGCB020I** It is a new condition and was added to the exceptions list.

**Explanation:** Multiple exception profiles are included in the job profile, and the job generation option Evaluate Multiple Exception Profiles is set to All. An exception condition in a subsequent profile (displayed in message GGCB076I) was detected; the exception was added to the list of conditions in the prior profiles.

**User response:** No action is required.

**GGCB021W** It is a duplicate condition and was not added to the exceptions list.

**Explanation:** Multiple exception profiles are included in the job profile, and the job generation option Evaluate Multiple Exception Profiles is set to All. An exception condition in a subsequent profile (displayed in message GGCB076I) was detected and was the same condition specified in a prior profile. The condition was skipped.

**User response:** No action is required.
Object profile includes Db2 database; object will not be processed.

Explanation: The object profile specified a temporary Db2 database or a Db2 directory. Db2 Change Accumulation Tool does not allow certain utilities to be executed on temporary or directory databases.
User response: Examine your object profile contents. Adjust the object profile or the utility profile as needed.

Saved exception condition for statistics_type.column not found; the profile was most likely saved under a different version of Db2.

Explanation: An exception condition in an exception profile is not valid for the version of Db2 under which the job will be run. The profile may have been created under a version of Db2 in which the statistics type and column type are not valid.
User response: Ensure that the exception condition is valid for the Db2 version under which the job will be run. You can export the exception profile to the correct subsystem, then update the exception profile to ensure the contents are valid.

space_type creator1 database space_name partition_number stepname step will have a duplicate utility ID of another job

Explanation: In the job’s generation options, multiple jobs were allowed but the utility ID was not specified to be prefixed with the job name. This combination may result in duplicate utility IDs being generated.
User response: Set the job generation options to allow only one job, or set the prefix for the utility ID to the job name.

Build JCL | control cards will be written to dsn

Explanation: You specified to build the job in batch. The output from the build JCL or the control cards will be written to the data set that is specified in the message text.
User response: No action is required.

Build JCL | control card member member successfully written

Explanation: You specified to build the job in batch. The output from the build job or control card member was written to the data set that is listed in GGCB025I.
User response: No action is required.

Jobs generation options follow:

Explanation: This is the first in a series of messages that list the job generation options. This message is followed by a series of other messages that each describe an option setting.
User response: No action is required.

Maximum Number of Jobs...

Explanation: This message is used with message GGCB027I and lists the maximum number of unique jobs that will be generated.
User response: No action is required.

Maximum Number of Objects per Job...

Explanation: This message is used with message GGCB027I and lists the maximum number of objects that will be included per job.
User response: No action is required.

Automatically generate GDG Base...

Explanation: This message is used with message GGCB027I and specifies whether a GDG will be automatically generated for image copy data sets if the base does not already exist. The GDG limit is listed in num; if the value is 0, GDG bases are not automatically created.
User response: No action is required.

Load Balance Jobs by...

Explanation: This message is used with message GGCB027I and indicates how copy and REORG jobs are load balanced.
User response: No action is required.

Capture Run Times for Load Balancing...

Explanation: This message is used with message GGCB027I and indicates whether run times will be captured for load balancing.
User response: No action is required.

Process Spaces in Utility (UT) Mode...

Explanation: This message is used with message GGCB027I and indicates if spaces will be started with utility-only access before running the utilities.
User response: No action is required.
Prefix Utility ID with Jobname...job|step|both|no

Explanation: This message is used with message GGCB027I and indicates the prefix to be used with the utility ID.

User response: No action is required.

Set JCL Member Name to Jobname...y | n

Explanation: This message is used with message GGCB027I and indicates if the JCL member generated will be the same as the job name in the job card.

User response: No action is required.

Generate Job When Errors Encountered...y | n | w

Explanation: This message is used with message GGCB027I and shows how Db2 Shared Profile Support will proceed if errors are encountered during job build.

User response: No action is required.

Utility Data Set High Level Qualifier...whilevel

Explanation: This message is used with message GGCB027I and lists the utility work data set high level qualifier.

User response: No action is required.

Retrieve Jobcard and Comments from Data Set

Explanation: This message is used with message GGCB027I and precedes GGCB040I. It appears if the job card and comments were retrieved from a data set.

User response: No action is required.

Data set: data_set_name

Explanation: This message is used with message GGCB027I and follows GGCB039I. It lists the data set name that holds the job card and comments.

User response: No action is required.

Member: member_name

Explanation: This message is used with message GGCB027I and follows GGCB040I. It lists the member name that holds the job card and comments.

User response: No action is required.

File tailor open | close error in program_name; RC=return_code

Explanation: The build process attempted to open or close the indicated member when generating JCL. However, ISPF returned the indicated return code. The member was most likely either not found or the member was already opened (being used) by another job.

User response: Make sure the indicated member exists and that no other job has the member opened.

An error was encountered attempting to execute GGC$TSOC; RC=return_code

Explanation: An attempt to execute an APF authorized program failed.

User response: Make sure the Db2 Shared Profile Support modules were correctly installed.

Load library not APF authorized - APF authorization required

Explanation: The target load library SGGCLOAD was not APF authorized. APF authorization is required.

User response: Ensure the target load library SGGCLOAD is APF authorized.

Subsystem ID ssid could not be found in the operating system

Explanation: The subsystem ID provided is either invalid or the subsystem has not been started since the last IPL.

User response: Use a valid subsystem ID or start the subsystem.

A critical error has occurred attempting to resolve the subsystem; RC=return_code

Explanation: Shared Profile Support was unable to access Db2 internal control blocks.

User response: Note the return code provided in the message and contact IBM Software Support for assistance.
GGCB048I  DB2 subsystem ID: ssid; DB2 version:version; SQLID:sqlid; ZUSER:userid

Explanation: This informational message provides information about the Db2 subsystem, version, user ID, and SQLID.

User response: No action is required.

GGCB049I  Using JOBS profile

profile_creator.profile_name that includes...

Explanation: This message might include the following subheading:

Excp Rule
Order Accp Rjct Type Creator.Profile Name

The list of all the profiles in the jobs profile follows this message.

User response: No action is required.

GGCB050I  message_text

Explanation: This message is used with GGCB049I. This message formats the following text as a heading in the message output:

Excp Rule
Order Accp Rjct Type Creator.Profile Name

User response: No action is required.

GGCB051E  statistics_column exception not found;
statistics_type exceptions not applied

Explanation: An internal processing error occurred. A selected exception condition was not found in the list of exception conditions.

User response: Rerun the job with DEBUG_MODE ON and save the job output. Contact IBM Software Support for assistance.

GGCB052W  index_database_name index_name
partition_number IXOWNER=index_owner;
associated TS object not found for
triggered IX; IX triggers TS condition

Explanation: An exception condition for the specified index (such as CLUSTERRATIO) indicates that the associated table space is triggered. However, the associated table space is not included in any objects profile in the job.

User response: Examine the objects profile and the exceptions profile to determine the corrective action.

GGCB053I  Message_text

Explanation: This message is issued at the end of a build job. It indicates the status of the job build, and describes whether the JCL was built based on the settings in the Build Job on Errors or Warnings field.

User response: No action is required.

GGCB054E  profile_type profile_creator.profile_name
cannot be found on DB2 subsystem ssid.

Explanation: The indicated profile could not be found on the specified Db2 subsystem during the build process. The profile may have been deleted from the Db2 subsystem.

User response: Examine your profile contents. Create or adjust the exception, job, object, or utility profile as needed.

GGCB055E  Neither SQLID nor user is authorized to
use profile_type profile
profile_creator.profile_name.

Explanation: The Update option for the indicated profile is either View or No and your user ID or SQLID does not match the creator ID of the profile. If the profile has an Update option of View or No, your user ID or the job’s SQLID must match the Creator ID of the profile.

User response: Examine the profile in question. If you are not authorized to use the profile, select a different profile.

GGCB056W  space_type creator|database space_name
partition_number - RUNSTATS statistics
do not exist; default stat values will be used.

Explanation: No RUNSTATS statistics were found for the indicated object in the statistics repository in use as indicated by the Use Stats From field in the exception profile (see message GGCB088I).

User response: Run RUNSTATS and save the statistics in the appropriate repository. To run RUNSTATS, set the Use Stats From field in the exception profile.

GGCB057E  SQL Error in program_name:
SQL_error_message_text.

Explanation: The program listed in the error message encountered an SQL error. The SQL error message text is listed in the message.

User response: Ensure that a bind has been properly performed on the appropriate Db2 subsystem and that the bind job completed without errors. Resubmit the job when the error has been corrected.
**GGCB058E**  
NO exception conditions were found in the exception profiles; or RUNSTATS statistics are being retrieved from the history tables and ALL exception conditions are for columns not included in the history tables.

**Explanation:** One of the following:

1. An exception profile is being used that has no exception conditions specified.
2. The Use Stats From field indicates to use RUNSTATS statistics from the history tables, but all specified exception conditions are for non-history table columns. This occurs when you create an exception profile with a Use Stats From value of Repository, Catalog, or Runstats, specify exception conditions for statistic columns that are not part of the history tables but are part of the other repository table, and then change the Use Stats From value to History.

**User response:** Update the exception profile to:

1. Select and specify at least one exception condition; or
2. Change the Use Stats From value to Repository, Catalog, or Runstats, or select at least one exception condition for a history table statistic column.

**GGCB059E**  
No object profiles were found in the jobs profile or no objects were found in any included object profile.

**Explanation:** An object profile is missing from the job profile, or the object profile in the job profile is empty. The build process cannot build a utility job without objects.

**User response:** Include an object profile in the jobs profile, or add objects to the empty object profile.

**GGCB060E**  
Only table space exceptions were specified but there are NO table space objects included in the object profiles.

**Explanation:** The exception profile specified exception conditions that apply only to table spaces. However, no table spaces are included in the object profiles.

**User response:** Correct the object profile to include table spaces, or change the exceptions profile to specify conditions that do not apply to table spaces.

**GGCB061E**  
Only index exceptions were specified but there are NO index objects included in the object profiles.

**Explanation:** The exception profile specified exception conditions that apply only to indexes. However, no indexes are included in the object profiles.

**User response:** Correct the object profile to include indexes, or change the exceptions profile to specify conditions that do not apply to indexes.

**GGCB062W**  
Table space exceptions were specified but there are NO table space objects included in the object profiles.

**Explanation:** The exception profile specified some exception conditions that apply only to table spaces. However, no table spaces are included in the object profiles.

**User response:** Correct the object profile to include table spaces, or change the exceptions profile to specify conditions that do not apply to table spaces.

**GGCB063W**  
Index exceptions were specified but there are NO index objects included in the object profiles.

**Explanation:** The exception profile specified exception conditions that apply only to indexes. However, no indexes are included in the object profiles.

**User response:** Correct the object profile to include indexes, or change the exceptions profile to specify conditions that do not apply to indexes.

**GGCB064W**  
RUNSTATS was requested. However, no catalog table exceptions were specified. Therefore, RUNSTATS will NOT be run.

**Explanation:** The exception profile indicated to run RUNSTATS. However, no exception conditions for Db2 catalog tables were selected. It is not necessary to run RUNSTATS in this instance since RUNSTATS statistics are not required to evaluate any of the specified exception conditions.

**User response:** Change the exception profile to select at least one catalog table exception condition.

**GGCB065E**  
\[space\_type\  creator\|database\  space\_name\  partition\_number\  DSN\  data\_set\_name\\  truncated\ -\  too\  many\  symbols\]

**Explanation:** The symbolics used to generate the data set name caused the name to be greater than 44 characters. The maximum number of characters allowed for a data set is 44. The data set name for the indicated object was truncated to 44 characters.

**User response:** Reduce the number or type of symbolics in the generated data set name.

**GGCB066E**  
\[space\_type\  creator\|database\  space\_name\  partition\_number\  Invalid\  SYMBOLIC\  parameter\  parameter\_name\  found\ -\  skipped\]

**Explanation:** An invalid symbolic parameter was detected while generating a data set name.

**User response:** Update the utility profile and specify
only valid symbolic parameters shown on the panel.

**GGCB067E**  
**space_type** creator | **database** space_name  
**partition_number** Index object  
xIXOWNER=index_owner IX=index_name  
not found for triggered index  

**Explanation:** The indicated index was triggered by an exception condition. The associated table space was found and an attempt was made to find the index, but the index was not found in the list of objects. This is an internal processing error.  

**User response:** Rerun the job with DEBUG_MODE ON and save the job output. Contact IBM Software Support for assistance.

**GGCB068W**  
**TS** database_name_pattern  
**tablespace_name_pattern** TS  
**CREATOR=creator_name** - No table spaces found for this pattern.  

**Explanation:** A wild card pattern was specified on the Objects Profile Display. However, no objects were found for the specified wildcard pattern in the Db2 subsystem.  

**User response:** Correct the wildcard in object profile.

**GGCB069W**  
**IX** database_name_pattern  
**index_name_pattern** No indexes found for this pattern.  

**Explanation:** A wild card pattern was specified on the Objects Profile Display. However, no objects were found for the specified wildcard pattern in the Db2 subsystem.  

**User response:** Correct the wildcard in object profile.

**GGCB070I**  
**space_type** creator | **database** space_name  
**partition_number** Duplicate object skipped  

**Explanation:** An object was included in the build more than once, probably because it was specified in two or more object profiles. The duplicate objects are skipped.  

**User response:** No action is required.

**GGCB071I**  
**space_type** creator | **database** space_name  
**partition_number** Table space excluded because it was created with DEFINE NO and underlying file not yet created  

**Explanation:** An object was included in an object profile, but the underlying file has not yet been created.  

**User response:** Either create the underlying file or remove the object from the object profile.

**GGCB072I**  
**space_type** database_name tablespace_name  
**partition_number** utility_name Run times do not exist for this table space  

**Explanation:** The job profile specified to capture run times for load balancing. This is the first time run times have been captured for this object. This message is strictly informational.  

**User response:** No action is required.

**GGCB073E**  
**space_type** creator | **database** space_name  
**partition_number** Space no longer exists  

**Explanation:** The specified object has been deleted from the Db2 catalog. The object may have deleted since the object profile was created.  

**User response:** Recover the object or remove the object from the object profile.

**GGCB074E**  
**space_type** database_name tablespace_name  
**partition** Underlying VSAM file not found  

**Explanation:** An object was included in an object profile but the underlying file could not be found.  

**User response:** Either create the underlying file or remove the object from the object profile.

**GGCB075I**  
**space_type** creator | **database** space_name  
**partition_number** Utility JCL has been created for this LOB table space  

**Explanation:** A LOB table space is part of the object profile. Utility JCL has been generated if applicable to the LOB table space.  

**User response:** No action is required.

**GGCB076I**  
Multiple exception condition detected for statistics_type.column in profile  
profile_creator.profile_name  

**Explanation:** Evaluate Multiple Exception Profiles is set to All together and multiple exception profiles are included in the jobs profile. An exception condition in a subsequent profile was detected and is the same condition that was specified in a prior profile. The duplicate exception condition was skipped.  

**User response:** No action is required.

**GGCB077I**  
**space_type** creator | **database** space_name  
**partition_number** Table space excluded because it is a TEMP or WORK database  

**Explanation:** The indicated temporary database was found in the job. JCL cannot be generated for temporary databases.
User response: Remove the temporary database from the object profile.

**GGCB078E**  
```
spacetype creator\database spasename
partition_number Image copy data set
name generated for utility utility IC type
copy_type generated incorrectly. Data set
has been truncated DSN=dataname
NODE=nodemessage_text
```

Explanation: This message is issued when building an image copy data set name. One of the following messages may appear in the message text:

- Invalid Data Set Node Detected Length Greater than 8 Characters
- Invalid Data Set Node Detected - 2 Consecutive Periods
- Invalid Ending Period Detected
- Invalid Data Set Node Detected - First Character Not Alphabetic or National
- Invalid Characters Detected in Data Set Node
- Invalid Data Set Node Detected after a GDG

User response: Update the utility profile and make sure a valid data set name pattern is specified.

**GGCB079E**  
```
Too many syscopy|DB2_display exceptions were specified; reduce the number of exceptions to be less than or equal to number
```

Explanation: An internal table overflowed.

User response: Reduce the number of SYSCOPY and Db2 display exceptions to be less than or equal to the value listed in the message.

**GGCB080E**  
```
spacetype creator\database spasename
partition_number Quiesce TABLESPACESET not supported on partitioned spaces with multiple job options turned on.
```

Explanation: For partitioned spaces, a QUIESCE TABLESPACESET cannot be generated when a job profile specifies that more than one job is to be built (when a value greater than 1 was specified in the Maximum nbr of jobs field in the job profile).

User response: Either delete the QUIESCE TABLESPACESET from the job profile or update the job profile options so that the maximum number of jobs is 1.

**GGCB081I**  
```
spacetype creator\database spasename
partition_number Image copy bypassed on this index because the index was not created with the COPY YES option
```

Explanation: The index listed in the message text cannot be copied because it was created without the COPY YES keyword.

User response: No action is required.

**GGCB082E**  
```
spacetype creator\database spasename
partition_number GDG base not found for image copy data set dataname
when generating DDs for utility utility IC type copy_type; Automatically Gen GDG Base = 000
```

Explanation: The image copy data set is specified to be a GDG. The GDG base does not exist, and the Automatically Gen GDG base field was set to 0 on the job options screen. Therefore, the GDG base cannot be created.

User response: If you want to use GDGs for the image copy data set, create the GDG base yourself, or set the Automatically Gen GDG base field to something other than 000.

**GGCB083I**  
```
spacetype creator\database spasename
partition_number GDG base not found for image copy data set dataname
when generating DDs for utility utility IC type copy_type; GDG base will be generated
```

Explanation: The image copy data set is specified to be a GDG. The GDG base does not exist, and the Automatically Gen GDG base field was set to a valid limit on the job options screen. Shared Profile Support will create the GDG base with the specified limit.

User response: No action is required.

**GGCB084E**  
```
CLUSTERED and/or CLUSTERRATIO|F is specified in an exceptions profile but there are NO table space objects in the object profiles
```

Explanation: The listed exception conditions relate to indexes. If the condition is met, the associated table space is triggered. However, no table spaces are included in any of the object profiles in the job.

User response: Update the object profile to include table spaces or delete the CLUSTERED and CLUSTERRATIO|F exception from the exception profile.

**GGCB085W**  
```
spacetype creator\database spasename
partition_number Underlying file has been migrated; space quantities have been defaulted
```

Explanation: The indicated object included in an object profile has been migrated from disk. The primary and secondary space quantities for the object have been defaulted to 500 tracks.
**GGCB087W • GGCB096I**

**User response:** Either remove the object from the object profile or recall the object back to disk.

**GGCB087W** job jobname required number objects utilityname utility steps required number objects per step

**Explanation:** These messages indicate that the job breakdown process overrode user-specified values. The job name listed in the message required the listed number of objects, which overrode the number displayed in GGCB091; or the utility listed in the message required the number of objects per step listed in the message, which overrode the number displayed in GGCB375.

**User response:** No action is required.

**GGCB088I** RUNSTATS statistics are being retrieved from the stats_source

**Explanation:** RUNSTATS statistics are being retrieved from the repository specified in the Use Stats From field in the first exception profile.

**User response:** No action is required.

**GGCB089I** Calling IBM RUNSTATS utility to collect current statistics for included objects; see SYSOUT file for additional RUNSTATS messages.

**Explanation:** RUNSTATS statistics were collected prior to exceptions processing. RUNSTATS parameters and messages are displayed in the SYSOUT.

**User response:** Review the SYSOUT file to determine if any errors need to be resolved.

**GGCB090E** RUNSTATS detected an unrecoverable error and terminated processing; RC=return_code; see SYSOUT file for more details.

**Explanation:** RUNSTATS statistics were specified to be collected prior to exceptions processing. However, RUNSTATS ended with an error and provided the return code listed in the message.

**User response:** Review the SYSOUT file to determine the error. Correct the error and resubmit the job.

**GGCB091I** space_type creator\|database space_name partition_number Logging for REORG TABLESPACE utility has been set to LOG YES for this LOB table space

**Explanation:** The utility profile specifies a REORG TABLESPACE with LOG NO. For LOB table spaces, REORG LOG NO is not recommended, as this parameter will leave the LOB table space in COPY PENDING status. Shared Profile Support changed the

**User response:** No action is required.

**GGCB092I** space_type creator\|database space_name partition_number Inline copy for REORG TABLESPACE utility has been turned off for this LOB table space

**Explanation:** The utility profile specifies a REORG TABLESPACE with an inline image copy. For LOB table spaces, an inline copy cannot be created during a REORG. Shared Profile Support removed the inline copy for the LOB space.

**User response:** No action is required.

**GGCB093I** Unexpected return code return_code from CAF command processor; reason X 'reason_code'.

**Explanation:** The Call Attach Facility returned the indicated error while attempting to process a -DISPLAY command.

**User response:** To determine the cause of the problem, refer to the Call Attach Facility codes for your version of Db2 in the IBM Information Management Software for z/OS Solutions Information Center. Correct the problem and resubmit the job.

**GGCB094I** Unexpected error parsing CAF command processor output - Status not found

**Explanation:** The status of an object in the output from the -DISPLAY command could not be found.

**User response:** Rerun the job with DEBUG_MODE ON and save the job output. Contact IBM Software Support for assistance.

**GGCB095I** space_type creator\|database space_name partition_number Online REORG TABLESPACE utility not supported on LOB table spaces; share level changed to NONE

**Explanation:** The utility profile specifies a REORG TABLESPACE with SHRLEVEL CHANGE or REFERENCE. For LOB table space REORGs, these parameters are not allowed. Shared Profile Support changed the REORG to SHRLEVEL NONE for the LOB space.

**User response:** No action is required.

**GGCB096I** space_type creator\|database space_name partition_number Inline statistics for REORG TABLESPACE utility has been turned off for this LOB table space

**Explanation:** The utility profile specifies a REORG TABLESPACE with STATISTICS option. For LOB table
space REORGs, inline statistics collection is not allowed. Shared Profile Support removed the STATISTICS keyword from the REORG for the LOB space.

User response: No action is required.

-- GGCB097W --

**Explanation:** A real time exception condition was specified for the indicated object. However, a row in the real time statistic table could not be found. The real time exception condition will not be applied to the object.

User response: Ensure that real time statistics are being collected on the Db2 subsystem.

-- GGCB098W --

**Explanation:** A real time exception condition was specified for the indicated object. However, a row in the real time statistic table could not be found. The real time exception condition will not be applied to the object.

User response: Ensure that real time statistics are being collected on the Db2 subsystem.

-- GGCB099E --

**Explanation:** The indicated user exit could not be found in any of the libraries allocated to the job.

User response: Make sure a load module is in an ISPLLIB data set and a CLIST or a REXX EXEC is in a SYSPROC data set allocated to the job.

-- GGCB100I --

**Explanation:** The indicated user exit was specified in an exception profile. Exception processing displays this message just prior to calling the user exit for the first time.

User response: No action is required.

-- GGCB101E --

**Explanation:** An attempt to initialize the ISPF environment to process user exits failed. Processing of other exception conditions continue.

User response: Refer to the SYSTSPRT file, which describes the error condition, and take the appropriate corrective action.
GGCB107W  Mutually exclusive conditions specified; objects were probably not triggered or triggered incorrectly

Explanation: A jobs profile contains more than one exception profile. A subsequent exception profile has an exception condition for a statistics column that contradicts the previous condition. For example, one exception condition specifies to check for a SYSCOPY.ICTYPE = 'F' while a subsequent exception condition specifies to check for SYSCOPY.ICTYPE NE 'F', or one exception condition specifies an OR condition while the other specified an AND condition.

User response: Examine your exception profiles and delete the exception condition that contradicts another exception condition in the job.

GGCB108E  OPEN | CLOSE INPUT | OUTPUT error on file dname; return code = return_code X'hex_return_code'.

Explanation: An error occurred on the file indicated in the message.

User response: Make sure the file in error is included in the job. Review the related return codes, take the appropriate corrective action, and resubmit the job.

GGCB109E  Both AGE and DATE are blank; one of these must specify a valid value

Explanation: A MODIFY utility was specified but Db2 Shared Profile Support cannot determine which records or rows to delete.

User response: You must specify either Date or Age on the Modify Utility options screen.

GGCB110I  Cleanup repository delete timestamp used: timestamp

Explanation: This informational message lists the timestamp used to determine which rows in the repository to delete.

User response: No action is required.

GGCB111I  Number of table_name table rows deleted...number

Explanation: This informational message lists the number of rows in the specified table that were deleted.

User response: No action is required.

GGCB112I  Recall Migrated Spaces...y | n

Explanation: This message is used with message GGCB027I and displays if migrated spaces are to be recalled during job build.

User response: No action is required.

GGCB113I  Use DSNACCOR Exception Table...

Explanation: This message is used with message GGCB027I and lists whether the DSNACCOR exception table is to be used for exception processing.

User response: No action is required.

GGCB114E  No parameter cards were found in input file file_name; utility terminated

Explanation: No control cards were found in the input file. The utility cannot continue.

User response: Build the job again to generate the appropriate utility control cards.

GGCB115E  Error loading profile_type profile; not enough records found in input file

Explanation: This is issued by the UNLOAD/LOAD profile program. The input file was probably corrupted.

User response: Run the UNLOAD to recreate the file and re-run the LOAD using the new file.

GGCB116E  Utilities Profile

"profile_creator,profile_name"

COPYTOCOPY Utility LP copy conflicts with prior image copy

Explanation: You have requested an LP type image copy, but the image copy to be used in the COPYTOCOPY utility is registered as an LP image copy. You cannot make the same type of copy using COPYTOCOPY.

User response: On the Copy to Copy Image Copy Options screen, specify N in the Local Primary - Take Image Copy field. Select another image copy type and resubmit the job.

GGCB117E  Utilities Profile

"profile_creator,profile_name"

"COPYTOCOPY Utility LB copy conflicts with prior image copy"

Explanation: You have requested an LB type image copy, but the image copy to be used in the COPYTOCOPY utility is registered as an LB image copy. You cannot make the same type of copy using COPYTOCOPY.

User response: On the Copy to Copy Image Copy Options screen, specify N in the Local Backup - Take Image Copy field. Select another image copy type and resubmit the job.
The most recent copy was found in SYSCOPY for this space.

User response: The object cannot be recovered.

No recovery information was found for this space.

User response: The object cannot be recovered.

An Alter has been done on this table space. Object Restore required for recovery.

User response: The index cannot be recovered unless your site has a license for Db2 Object Restore.

This index has been rebuilt, which prohibits recovery. Index will be rebuilt instead.

User response: No action is required.

Space is not recoverable to desired point. A CHECK DATA with LOG NO prohibits recovery.

User response: Select a recovery point in time before the CHECK DATA was executed.
**GGCB128W • GGCB137E**

**GGCB128W**  
```
space_type creator|database space_name  
partition_number Required full image copy image_copy_data_set could not be found
```

**Explanation:** A full image copy for the listed space could not be found, and cannot be used in the recovery.

**User response:** No action is required.

**GGCB129W**  
```
space_type creator|database space_name  
partition_number Incr Image Copy image_copy_data_set could not be found. Must log apply
```

**Explanation:** An incremental image copy for the listed space could not be found, and cannot be used in the recovery. Db2 Shared Profile Support will use another valid copy and apply log changes to recover the object.

**User response:** No action is required.

**GGCB130W**  
```
space_type creator|database space_name partition_number Partial Recovery has been found. Recovery is still allowed
```

**Explanation:** Db2 Shared Profile support detected a partial recovery of the listed object. However, it may be possible to still recover the object. If further processing detects that the object cannot be recovered, additional messages will be issued.

**User response:** No action is required.

**GGCB131W**  
```
space_type creator|database space_name partition_number Space is not recoverable to desired point. A LOAD REPLACE with LOG NO prohibits recovery
```

**Explanation:** This space cannot be recovered to the selected point in time because a LOAD REPLACE with LOG NO has been executed on the space.

**User response:** Select a recovery point in time before the LOAD REPLACE was executed.

**GGCB132E**  
```
space_type creator|database space_name partition_number Space is not recoverable to desired point. A LOAD RESUME|REORG with LOG NO prohibits recovery
```

**Explanation:** This space cannot be recovered to the selected point in time because a LOAD RESUME or REORG with LOG NO has been executed on the space.

**User response:** Select a recovery point in time before the LOAD RESUME or REORG was executed.

**GGCB133E**  
```
space_type creator|database space_name partition_number A valid starting point could not be found for the recover utility
```

**Explanation:** The listed object cannot be recovered because events occurred that rendered recovery impossible, such as a REORG LOG NO without a successive image copy.

**User response:** The space is not recoverable.

**GGCB134I**  
```
space_type creator|database space_name partition_number Index excluded because it was created with DEFINE NO and underlying file not yet created
```

**Explanation:** The listed index was excluded from recovery. When the index was created, DEFINE NO was used. However, the underlying VSAM file has not yet been created.

**User response:** No action is required.

**GGCB135I**  
```
space_type creator|database space_name partition_number Reorg Table Space option KEEPDICTIONARY has been turned off for non compressed space
```

**Explanation:** The REORG utility profile specified KEEPDICTIONARY YES, but the listed space is not a compressed space. KEEPDICTIONARY will be suppressed for this space.

**User response:** No action is required.

**GGCB136E**  
```
There was an error initializing the GCC#LRGN function; the SYSCOPY.CHGD_SINCE_LAST_IC exceptions will NOT be processed; RC=return_code
```

**Explanation:** An exception profile contains the indicated statistics type. An error occurred during the initialization of the function. Processing of these exception conditions are skipped. Processing of other exception conditions continue.

**User response:** Rerun the job with DEBUG ON, save the job output, and contact IBM Software Support.

**GGCB137E**  
```
space_type creator|database space_name partition_number There was an error attempting to process a SYSCOPY.CHGD_SINCE_LAST_IC exception condition
```

**Explanation:** An exception profile contains the indicated statistics type. An error occurred while evaluating the exception condition. Processing of the current object is skipped. Processing of other objects continues.
User response: Rerun the job with DEBUG ON, save the job output, and contact IBM Software Support.

**GGCB138E**

```
space_type creator|database space_name  
partition_number Object excluded. The  
data set data_set_name not found in  
SYSCOPY
```

Explanation: You specified to recover to a particular copy (data set), but the data set is not found in SYSCOPY.

User response: The space is not recoverable to that copy. However, you might be able to recover the space using another recovery point.

**GGCB139W**

```
Profile profile_creator|profile_name  
re-startability has been disabled; JCL for this job will be saved to the SAME  
DSN/mbr
```

Explanation: The profile name listed in the message will not be able to be restarted because the JCL output for the current job profile is being written to the same data set and member name.

User response: No action is required.

**GGCB140I**

```
space_type creator|database space_name  
partition_number Primary space necessary for allocation has been truncated to user specified quantity
```

Explanation: The listed object’s primary allocation was truncated due to the user-specified maximum primary space allocation limits. These limits are specified in the Shared Profile Support - Update Parameters for Db2 Subsystem screen. It is possible that adequate secondary space will be allocated for the object.

User response: No action is required.

**GGCB141W**

```
space_type creator|database space_name  
partition_number Prime and Secd Space necessary for allocation have been truncated to user specified qty
```

Explanation: The listed object’s primary and secondary allocations were truncated due to the user-specified maximum space allocation limits.

User response: The job will probably fail due to lack of space. Re-evaluate your maximum space quantity allocations.

**GGCB142I**

```
DSNACCOR EXCEPT_TBL not found; Utilities will not be excluded from generated JCL
```

Explanation: You specified to use the DSNACCOR table for exception processing, but no exception data was found in the DSNACCOR table.

User response: To use the DSNACCOR EXCEPT_TBL, ensure that the table exists and that it populated with exception data.

**GGCB143I**

```
TS|IX creator|database space_name  
partition_number utility_type turned off because object was found in the  
DSNACC.EXCEPT_TBL
```

Explanation: This informational message lists the object that will be excluded by the listed utility because it was found in the DSNACCOR table.

User response: No action is required.

**GGCB144W**

```
Column exceptions were specified but there are NO table space or index objects included in the object profiles
```

Explanation: The exception profile specified some column exception conditions. However, no table or index spaces are included in the object profiles. The objects may have been filtered by a previous exception.

User response: Ensure that the object profile will include objects for this exception. Check the exceptions profile to ensure conditions are properly set.

**GGCB145I**

```
IX creator index_name partition_number  
REORG turned off for this index since the table space is being REORGed
```

Explanation: The table space associated with the listed index is being REORGed. When a table space is REORGed, its associated indexes are also REORGed. Therefore, the REORG utility that was specified for the index has been disabled to prevent a second REORG on the index.

User response: No action is required.

**GGCB146I**

```
IX creator index_name partition_number  
RUNSTATS turned off for this index since RUNSTATS is being performed on the table space
```

Explanation: The RUNSTATS utility was already specified for the table space associated with the listed index. When RUNSTATS is run on a table space, RUNSTATS is also run on its associated indexes. Therefore, the RUNSTATS utility that was specified for the index has been disabled to prevent a second RUNSTATS on the index.

User response: No action is required.

**GGCB147W**

```
OBJS Profile profile_creator|profile_name:  
Volume processing at ALL level is not allowed with Symmetrix/ESS backups
```

Explanation: The object profile contains objects selected by volume. When the volumes were selected,
processing at the “All” level was specified. However, when processing IBM ESS or Symmetrix copies, the objects must have been selected with processing at the “Part” level.

User response: Change the object profile to process the objects selected by volume to the “Part” level.

GGCB148E Not enough FlashCopy Target volumes are specified; The number of Source volumes \((num\_source)\) exceeds the number of Target volumes \((num\_target)\)

Explanation: There are more source volumes to be copied than there are target volumes specified. This is not allowed.

User response: Add or change the target volumes so there are at least as many target volumes as source volumes.

GGCB149E ANTRQST is not installed on this system; System Data Mover (SDM) functions are not available; FlashCopy canceled

Explanation: Utility JCL for image copies of objects on IBM ESS devices was to be generated. However, Db2 Change Accumulation Tool requires IBM ESS devices with Advanced Copy Services and the DFSSMS system data mover (SDM) API (macro ANTRQST) installed.

User response: The System Data Mover, level 5 or above, must be installed in order to use FlashCopy® features.

GGCB150E FlashCopy is not available at this level of ANTRQST \((level)\) running on this system; ANTRQST Level must be \(\geq level\); FlashCopy canceled

Explanation: Db2 Change Accumulation Tool requires IBM ESS devices with Advanced Copy Services and the DFSSMS system data mover (SDM) API (macro ANTRQST) installed. However, the System Data Mover is not at the required level; it must be level 5 or above.

User response: Update your System Data Mover to the required level.

GGCB151E Unexpected return code from ANTRQST \(level\) ESSRVC5 request; Return code = \(return\_code\); Reason code = \(reason\_code\). See z/OS DFSMSdss Advanced Services manual for a description of the Return Codes. ANTR08 message_number For a Return Code of 7620. See z/OS MVS System Messages manual for a description of ANTR08nnn messages

Explanation: An error was encountered when building or processing the ESS image copy utility JCL.

User response: Refer to the message text for appropriate action.

GGCB152E FlashCopy Volume \(volume\) is not an ESS (Shark) device

Explanation: The specified volume is not an IBM ESS device.

User response: Enter a valid ESS volume on the IBM ESS Backup Options panel and resubmit.

GGCB153E FlashCopy Volume \(volume\) is in \(status\) status; It must be in SIMPLEX status to execute FlashCopy functions

Explanation: The ESS volume must be in SIMPLEX status to process the FlashCopy job. If the volume is in a state other than SIMPLEX, another FlashCopy job may be in progress.

User response: Wait until the current FlashCopy job is completed, or specify a different ESS volume.

GGCB154I Source FlashCopy volume \(source\_volume\) will be FlashCopied to target volume \(target\_volume\)

Explanation: This informational message lists the source volume to be flash copied and the target volume to which it will be copied.

User response: No action is required.

GGCB155E Unexpected Return Code \(return\_code\) attempting to establish communications with the Symmetrix; Copy functions canceled

Explanation: Db2 Shared Profile Support encountered an error communicating with the Symmetrix device. There may be a problem with the Symmetrix SCF started task.

User response: Check that the SCF started task is running. Consult your Symmetrix user guide for further assistance. Contact IBM Software Support if additional assistance is required.

GGCB156E Unexpected Return Code \(return\_code\) attempting to query the Symmetrix; Copy functions canceled

Explanation: Db2 Shared Profile Support encountered an error attempting to query the Symmetrix device. There may be a problem with the Symmetrix SCF started task.

User response: Check that the SCF started task is running. Consult your Symmetrix user guide for further assistance. Contact IBM Software Support if additional assistance is required.
GGCB157E  Volume volume is not on an EMC Symmetrix device; Copy functions canceled

Explanation: The specified volume is not an EMC Symmetrix device.

User response: Enter a valid EMC device on the EMC Backup Options panel and resubmit.

GGCB158E  EMCDASD scan failed with an RC = return_code attempting to find the UCB for Symmetrix device device_address; Copy functions canceled

Explanation: Db2 Shared Profile Support could not find the unit control block for the specified device.

User response: Note the return code and contact IBM Software Support.

GGCB159E  UCBDASD scan failed with an RC = return_code attempting to find the UCB for Symmetrix device device_address; Copy functions canceled

Explanation: An error occurred when attempting to access the Symmetrix device. The UCB scan could not find the corresponding MVS device.

User response: Note the return code and contact IBM Software Support.

GGCB160I  space_type creator\database space_name partition_number Reorg Table Space utility does not support REUSE on LOB table spaces; Reuse has been turned off

Explanation: The REORG utility does not support the REUSE keyword on LOB table spaces. The job will be built without the REUSE keyword.

User response: No action is required.

GGCB161I  space_type creator\database space_name partition_number Reorg Table Space option NOSYSREC not allowed since no clustering index found for this space

Explanation: The listed object does not have a clustering index; therefore, the NOSYSREC keyword cannot be specified. NOSYSREC will not be included in the REORG syntax.

User response: No action is required.

GGCB162I  space_type creator\database space_name partition_number REUSE parm in Reorg Tbsp/Index has been turned off because object was ALTERED

Explanation: The listed object has been ALTERed since creation. Therefore, the REUSE keyword cannot be specified. REUSE will not be included in the REORG syntax.

User response: No action is required.

GGCB163E  The GGC database is not in a read/write status. Correct the invalid status and rerun

Explanation: The GGC database must be available in read/write status.

User response: Correct the invalid status and rerun the job.

GGCB163I  space_type creator\database space_name partition_number Table space is not in a read/write status. Correct the invalid status and rerun

Explanation: The table space listed in the message must be available in read/write status.

User response: Correct the invalid status and rerun the job.

GGCB163E  Current user ID does not have sufficient authority to perform a DISPLAY DATABASE command

Explanation: The user ID under which the job is being generated does not have sufficient authority to perform the DISPLAY DATABASE command on the Db2 Change Accumulation Tool database. At a minimum, DISPLAYDB authorization is required in order to generate jobs.

User response: Grant the user ID DISPLAYDB authority on the Db2 Change Accumulation Tool database.

GGCB164W  space_type creator\database space_name partition_number The primary space quantity has been truncated due to the MAXPRIME rules set in reallocation

Explanation: The primary space allocation was truncated because the reallocation utility profile was configured to apply the maximum primary space allocation setting. The maximum primary allocation is specified in Setup on the Shared Profile Support setup parameters screen.

User response: No action is required.

GGCB165W  space_type creator\database space_name partition_number The primary space quantity has been truncated due to the PIECESIZE for this index

Explanation: The primary space allocation was truncated because the allocation quantity exceeded the PIECESIZE specified when the index was created.
No action is required.

**Explanation:** The secondary space allocation was truncated because the allocation quantity exceeded the PIECESIZE specified when the index was created.

**User response:** No action is required.

**GGCB167I**  
**space_type creator | database space_name**  
**partition_number**  
**Reorg Table Space**

*Turn off tape stacking was selected with an image copy template on a tape device. STACK has been set to No.*

**Explanation:** The Turn off Tape Stacking field was set to Y in the utility profile, and an image copy utility using templates is being generated for REORG TABLESPACE. STACK YES will not be included in the job; the default of STACK NO is assumed.

**User response:** No action is required.

**GGCB168I**  
**Invalidatecache**

*Yes is required for [RUNSTATS Update None Report No | Reset Accesspath] Invalidatecache has been set to No.*

**Explanation:** INVALIDATECACHE is required for RUNSTATS when both UPATE and REPORT are set to NO, or when RESET ACCESSPATH is specified.

**User response:** No action is required.

**GGCB169I**  
**space_type creator | database space_name**  
**partition_number**  
**Reorg Table Space**

*option SORTDATA is not supported on LOB table spaces; option removed*

**Explanation:** The REORG utility does not support the SORTDATA keyword for LOB table spaces. The job will be built without the SORTDATA keyword.

**User response:** No action is required.

**GGCB170I**  
**space_type creator | database space_name**  
**partition_number**  
**Reorg Table Space**

*option SORTKEYS is not supported on LOB table spaces; option removed*

**Explanation:** The REORG utility does not support the SORTKEYS keyword for LOB table spaces. The job will be built without the SORTKEYS keyword.

**User response:** No action is required.

**GGCB171I**  
**space_type creator | database space_name**  
**partition_number**  
**Reorg Table Space**

*option NOSYSREC is not supported on LOB table spaces; option removed*

**Explanation:** The REORG utility does not support the NOSYSREC keyword for LOB table spaces. The job will be built without the NOSYSREC keyword.

**User response:** No action is required.

**GGCB172I**  
**space_type creator | database space_name**  
**partition_number**  
**Reorg Table Space**

*option SORTDEVT is not supported on LOB table spaces; option removed*

**Explanation:** The REORG utility does not support the SORTDEVT keyword for LOB table spaces. The job will be built without the SORTDEVT keyword.

**User response:** No action is required.

**GGCB173I**  
**space_type creator | database space_name**  
**partition_number**  
**Reorg Table Space not supported for this space**

**Explanation:** A REORG is not allowed on the listed space, most likely because the space is a system catalog space that does not allow REORGs (such as SYSUTILX). The object was skipped.

**User response:** No action is required.

**GGCB174I**  
**space_type creator | database space_name**  
**partition_number**  
**Reorg Table Space Utility not supported on DSNDB01 spaces; Share level changed to NONE**

**Explanation:** An online REORG is not allowed on DSNDB01 spaces. The REORG syntax was built with SHRLEVEL NONE.

**User response:** No action is required.

**GGCB175I**  
**space_type creator | database space_name**  
**partition_number**  
**Invalidatecache**

*Inline statistics for Reorg Table Space Utility has been turned off for this DSNDB01 space*

**Explanation:** Inline statistics is not allowed for DSNDB01.

**User response:** No action is required.

**GGCB176I**  
**Generate Templates.................................y | n**

**Explanation:** This message is used with message GGCB027I and indicates whether TEMPLATE syntax is used when generating utilities.

**User response:** No action is required.
GGCB177I  Generate Listdefs........................y\n
Explanation:  This message is used with message GGCB027I and indicates whether LISTDEF syntax is used when generating utilities.
User response:  No action is required.

GGCB178I  Preview Only..............................y\n
Explanation:  This message is used with message GGCB027I and indicates whether the job will be generated in PREVIEW mode.
User response:  No action is required.

GGCB179I  Continue on Item Error................y\n
Explanation:  This message is used with message GGCB027I and indicates whether processing will continue if an error message with return code 8 is received (not including ABENDS).
User response:  No action is required.

GGCB180I  Return code 0 on Warnings..............y\n
Explanation:  This message is used with message GGCB027I and indicates whether a return code of 0 is forced for jobs that end with return code 4.
User response:  No action is required.

GGCB181I  Override Work File Unit................unit

Explanation:  This message is used with message GGCB027I and displays the Work File Unit setting on the Override Setup Options screen.
User response:  No action is required.

GGCB182I  Override Sort Work File Unit............unit

Explanation:  This message is used with message GGCB027I and displays the Sort Work File Unit setting on the Override Setup Options screen.
User response:  No action is required.

GGCB183I  Override Job Track DB2 Subsystem....ssid

Explanation:  This message is used with message GGCB027I and displays the Job Track DB2 SubSys setting on the Override Setup Options screen.
User response:  No action is required.

GGCB184I  Override Max Primary Space Allocation....allocationunit

Explanation:  This message is used with message GGCB027I and displays the Max Prime Space Alloc setting on the Override Setup Options screen.
User response:  No action is required.

GGCB185I  Override Utility REGION Size............amount M

Explanation:  This message is used with message GGCB027I and displays the Utility Region Size setting on the Override Setup Options screen.
User response:  No action is required.

GGCB186I  Override Parallel MVS Catalog LOCATEs.....number

Explanation:  This message is used with message GGCB027I and displays the Parallel MVS Cat LOCs setting on the Override Setup Options screen.
User response:  No action is required.

GGCB187I  Override Terminate Utility if ABEND........y\n
Explanation:  This message is used with message GGCB027I and displays the Term Utility if Abend setting on the Override Setup Options screen.
User response:  No action is required.

GGCB188I  Override Generate STEPLIB DDs............y\n
Explanation:  This message is used with message GGCB027I and displays the Generate STEPLIB DDs setting on the Override Setup Options screen.
User response:  No action is required.

GGCB189I  Override Generate Copy DSNs in GMT........y\n
Explanation:  This message is used with message GGCB027I and displays the Gen Copy DSNs in GMT setting on the Override Setup Options screen.
User response:  No action is required.

GGCB190I  Override Primary Sort Work Space........cylinders C

Explanation:  This message is used with message GGCB027I and displays the Prim Sort Work Space setting on the Override Setup Options screen.
User response:  No action is required.
GGCB191I • GGCB201I

GGCB191I  Override Secondary Sort Work Space
            cylinders C

Explanation: This message is used with message
GGCB027I and displays the Prim SortWork Space
setting on the Override Setup Options screen.

User response: No action is required.

GGCB192I  Override Number of Sort Work DDs
            cylinders

Explanation: This message is used with message
GGCB027I and displays the Nbr of SortWork DDs
setting on the Override Setup Options screen.

User response: No action is required.

GGCB193I  Reorg Table Space with Unload Pause
            requires a Work DSN High level on
            Jobs Option Screen. All Data will be
            lost. HIGHLVL default.

Explanation: You must specify a utility work data set
high level qualifier to be used for REORG work data
set DDs. If you specified to build the job regardless of
errors or warnings, the high level qualifiers for those
data sets will default to HIGHLVL.

User response: On the Generation Options screen for
the job profile, specify a utility work data set high level
qualifier and rebuild the job.

GGCB194W  Maximum job steps exceeded. Job
            jobname has been split into
            number_of_jobs jobs

Explanation: The job exceeds the maximum number of
job steps allowed. The listed job name has been split
into the specified number of jobs.

User response: No action is required.

GGCB195W  The primary space quantity has been
            truncated due to the DSSIZE for this
            space

Explanation: The primary space reallocation quantity
exceeds the maximum DSSIZE (data set size) for this
object type. The primary space quantity has been
truncated.

User response: No action is required.

GGCB196W  The secondary space quantity has been
            truncated due to the DSSIZE for this
            space

Explanation: The secondary space reallocation
quantity exceeds the maximum DSSIZE (data set size)
for this object type. The secondary space quantity has
been truncated.

User response: No action is required.

GGCB197W  You have selected utility profiles with
            exception rules set for rejected, but no
            exception profiles exists

Explanation: The utility profiles included in the job
profile have the Exception Rule field set to Rejected.
However, no exception profiles were included in the
job profile. Objects cannot be considered rejected unless
they have been excluded through exception processing.

User response: Change the Exception Rule field in the
utility profile, or include appropriate exception profiles
in the job profile.

GGCB198E  space_type creator\database space_name
            partition_number Index excluded due to
            exclusion of associated table space

Explanation: Exception processing resulted in the
exclusion of the table space listed in the message.
Because in the object profile the table space has the
Process Dependent Indexes field set to Y, the space’s
associated indexes will also be excluded.

User response: No action is required.

GGCB199W  Util Profile profile_creator.profile_name has
            no utilities selected - profile ignored

Explanation: The job profile contains a utility profile
that has not specified any utilities (all utilities in the
utility profile are set to ‘N’). The utility profile is
ignored. If the job was built in batch, a return code of 4
is produced.

User response: Update the utility profile to include
the desired utility, or remove the utility profile from the
job.

GGCB200W  Optimization Hint | Query Acceleration
            will be ignored because DB2 Force was
            not selected.

Explanation: The Optimization Hint or Query
Acceleration options are only valid if Db2 is set to
Force. The option will not be included in the generated
JCL.

User response: If you want to include one of these
options, set the Force option on the HPU Options panel
to F(orce).

GGCB201I  Recover Index has been disabled for
            this table space. Process Indexes was set
to No

Explanation: The listed index will not be recovered
because the Process Indexes field was set to Y.

User response: No action is required.
GGCB202I  
```
• space_type creator/database space_name
  partition_number Runstats UPDATE
  option has been changed to NONE for
  this LOB tablespace
```
**Explanation:** The listed LOB was included in a LISTDEF; the RUNSTATS option must be set to NONE.
**User response:** No action is required.

GGCB203I  
```
Rebind Dependent Plans / Packages ...
```
**Explanation:** This message is used with message GGCB027I and displays the Rebind Dependent Plans/Packages setting on the Generation Options screen.
**User response:** No action is required.

GGCB204I  
```
• space_type creator/database space_name
  partition_number Reorg Index not
  supported for this space
```
**Explanation:** A REORG is not allowed on the listed index, most likely because it is an index for a system catalog space that does not allow a REORG INDEX. The object was skipped.
**User response:** No action is required.

GGCB205I  
```
• space_type creator/database space_name
  partition_number Runstats not supported
  for this object
```
**Explanation:** RUNSTATS cannot be executed on this object. The object will be skipped.
**User response:** No action is required.

GGCB207W  
```
space_type creator/database space_name
  partition_number Space with page size >
  4K excluded from concurrent image
  copy with SHARELEVEL CHANGE
```
**Explanation:** Concurrent COPY with SHRLEVEL CHANGE is not valid for objects with a page size greater than 4 KB. These objects will be excluded from the generated JCL.
**User response:** No action is required.

GGCB208E  
```
• Image copy FILTERDDN option must
  be used with templates only
```
**Explanation:** A filter DD name was specified in the COPY utility profile, but the job profile did not specify to use templates. It is required to set the Generate Templates option in Y in order to use the filter DD name.
**User response:** Update the job profile to set the Generate Templates job option to Y.

GGCB210I  
```
• space_type creator/database space_name
  partition_number utility Utility has been
  turned off for this object
```
**Explanation:** The utility listed in the message has been turned off for the object because the utility does not apply to this type of object.
**User response:** No action is required.

GGCB211I  
```
All ACCEPTED/REJECTED Utilities
  have been turned off for this object
```
**Explanation:** This message indicates that an object does not have any utilities to be run against it and therefore will not be included in the JCL. This condition might occur when an object is initially included but later is excluded.
**User response:** No action is required.

GGCB213I  
```
Severity of GGCB524 message has been
  overridden to Info | Warning
```
**Explanation:** The severity of the GGCB524E message was manually overridden to either an informational message or a warning message (as stated in the message text).
**User response:** No action is required.

GGCB215W  
```
IDAA exceptions were specified but
  there were no IDAA appliances found
  on this SSID. IDAA exceptions are
  disabled.
```
**Explanation:** IDAA exception conditions were selected. However, no IDAA accelerators were found attached to the Db2 subsystem. Therefore, the IDAA exception conditions were disabled.
**User response:** Remove the IDAA exception conditions from the exception profile.

GGCB216W  
```
IDAA exceptions were specified but
  there were no IDAA-enabled tables
  found on this SSID. IDAA exceptions
  are disabled.
```
**Explanation:** IDAA exception conditions were specified. However, no tables in any table spaces in the object profiles were found on any IDAA accelerators attached to the Db2 subsystem. Therefore, the IDAA exception conditions were disabled.
**User response:** Remove the IDAA exception conditions from the exception profile.
GGCB217W  IDAA exceptions were specified but there are no IDAA utilities in this job
group. IDAA exceptions are disabled.

Explanation: IDAA exception conditions were selected. However, no load accelerator tables utility was
found in the current job group in the job profile. Therefore, the IDAA exception conditions were
disabled for the current job group.

User response: Either remove the IDAA exception conditions from the exception profile or add a load
accelerator tables utility to the job group.

GGCB218W  IDAA table cannot be loaded because its status is not loaded or operational.

Explanation: The IDAA NOT_OPERATIONAL exception condition was selected. The indicated table
has an IDAA status that is listed in the message.

User response: Refer to the IDAA documentation for specifics about the status of an IDAA-enabled table.

GGCB219I  An IDAA stored procedure returned the following informational | warning | error
message and reason-code: reason-code: message-text; message-description; action-text

Explanation: An IDAA stored procedure returned an SQLCODE = 466, indicating that a result set was
returned. However, an informational, warning, or error message was also issued. Message-text and
message-description indicate the situation that the stored procedure detected. Refer to the IDAA documentation
for more information about the reason-code.

User response: Take the specified action as described in action-text to resolve the issue.

GGCB220I  An IDAA stored procedure returned the following informational | warning | error
message and reason-code: reason-code: message-text; message-description; action-text

Explanation: An IDAA stored procedure returned an SQLCODE = 466, indicating that a result set was
returned. However, an informational, warning, or error message was also issued. Message-text and
message-description indicate the situation that the stored procedure detected. Refer to the IDAA documentation
for more information about the reason-code.

User response: Take the specified action as described in action-text to resolve the issue.

GGCB221I  Explode IXs with DEFINE NO TSs............Y|N

Explanation: The Setup or Job Override value being used for the current job profile is displayed.

User response: No action is required.

GGCB222I  Altered Object Adjustment.................A|P

Explanation: The Setup or Job Override value being used for the current job profile is displayed.

User response: No action is required.

GGCB225W  Refresh of the real time statistics failed. Processing continues. Rerun job with
"DEBUG_MODE ON" for diagnostic information.

Explanation: Externalization of the real-time statistics to the catalog tables failed due to unavailable resources.

User response: Rerun the job in DEBUG mode to view more detailed diagnostic information.

GGCB300I  space_type creator|database space_name
partition_number Logging for Reorg Tablespace Utility has been set to LOG NO for this LOB tablespace

Explanation: LOG YES is not allowed for LOB table spaces when the REORG type is set to SHRLEVEL
REFERENCE or SHRLEVEL CHANGE. The LOG keyword has been set to NO.

User response: No action is required.

GGCB302W  space_type creator|database space_name
partition_number Copy SHARELEVEL(CHANGE) not supported on not logged spaces

Explanation: The listed space was created with NOT LOGGED attribute. An online COPY cannot be
performed on this space.

User response: No action is required.

GGCB303W  space_type creator|database space_name
partition_number Recover LOGONLY not supported on not logged spaces

Explanation: The listed space was created with the NOT LOGGED attribute. A RECOVER LOGONLY
cannot be performed on this space.

User response: No action is required.

GGCB304W  space_type creator|database space_name
partition_number Quiesce WRITE(NO) not supported on not logged spaces

Explanation: The listed space was created with the NOT LOGGED attribute. A QUIESCE WRITE(NO)
cannot be performed on this space.

User response: No action is required.

GGCB305E  space_type creator|database space_name
partition_number The state of the object at selected point in time was not logged

Explanation: At the specified recovery point, the listed space contained the NOT LOGGED attribute. This
space cannot be recovered to a point in time without log records.

User response: Select a different recover point for the space.

GGCB306I Not Logged objects may need to be recovered to establish a point of consistency

Explanation: This informational message states that if there were any spaces with the NOT LOGGED attribute when the system backup was performed, these spaces will be in RECOVER PENDING after the system restore is completed.

User response: No action is required.

GGCB307I The FASTSWITCH option is not supported on Online Reorg

Explanation: The FASTSWITCH keyword is not valid with online REORG for Db2 Version 9.1 or later. This keyword will be ignored.

User response: No action is required.

GGCB309I All associated Runstats statistics will be collected regardless of the specified exception conditions

Explanation: In an exception profile, the Collect All Statistics field on the Runstats Options screen was set to Y. Therefore, RUNSTATS keywords will be generated to collect all associated statistics for an object, regardless of the exception conditions that are specified in the exception profiles. This allows the Db2 catalog and/or the Db2 Change Accumulation Tool repository to have current table space and index statistics for all objects in the job.

User response: No action is required.

GGCB310W space_type creator \database space_name partition_number Clone objects no longer exist

Explanation: The object profile specified to process clone objects for the object listed in the message. However, a clone object no longer exists, therefore clones will not be processed for this object.

User response: No action is required.

GGCB311W Rebalance has been turned off for this Partition by Growth Tablespace

Explanation: REBALANCE is not allowed for partition-by-growth table spaces.

User response: No action is required.

GGCB312W Clone object detected. Care must be taken executing COPY, REORG, or RECOVER utilities due to exchanging base/clone objects

Explanation: A clone object was detected. Clone table support in Db2 Version 9.1 added the ability to exchange the base table with the cloned table. It is therefore possible that the utility may be performed on the wrong object. In addition, if a table is cloned and exchanged after the job is built, the job may be executed on the wrong object without warning.

User response: Ensure that the correct object (clone or base) is being included in the job.

GGCB313I space_type creator \database space_name partition_number FASTSWITCH option will be ignored for clone indexes

Explanation: The FASTSWITCH option of the REORG utility is not allowed for any object involved in cloning. The FASTSWITCH keyword will be ignored.

User response: No action is required.

GGCB314I space_type creator \database space_name partition_number RUNSTATS will be ignored for clone objects

Explanation: RUNSTATS cannot be executed on cloned objects. The listed object will not be processed.

User response: No action is required.

GGCB315W The Force option should be used with caution. The oldest version of the database/log will be overwritten before saving to tape

Explanation: The FORCE option was specified for BACKUP SYSTEM utility. This message warns that the oldest fast replication copy of the database copy pool and/or the log copy pool might be overwritten, even if the dump to tape of the copy pools' DFSMShsm dump classes have been initiated but are only partially completed.

User response: No action is required.

GGCB316W space_type creator \database space_name partition_number REORG SHRLEVEL(CHANGE) not supported on LOB Table spaces. SHRLEVEL will be set to NONE | REORG SHRLEVEL(CHANGE) not supported on LOB TS with base TS defined as LOG NO. SHRLEVEL set to REFERENCE

Explanation: For Db2 V9 and earlier, SHRLEVEL CHANGE is not valid for a REORG of a LOB table space. SHRLEVEL has been changed to NONE for this LOB object.

Chapter 10. Troubleshooting
For Db2 V10 and later, SHRLEVEL CHANGE is not valid when the base table space is NOT LOGGED. SHRLEVEL has been changed to REFERENCE for this LOB object.

**User response:** No action is required.

**Explanation:**

<table>
<thead>
<tr>
<th>GGCB317W</th>
<th>The REALTIME statistics tables were not found. No REALTIME exception conditions will be processed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The Db2 subsystem on which the job is being generated does not contain the required real-time statistics tables. These tables are user-defined on Db2 subsystems prior to Db2 Version 9.1. Db2 Change Accumulation Tool cannot process conditions related to real-time statistics.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB318W</th>
<th>space_type creator|database space_name partition_number Rebalance has been turned off for this XML tablespace</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> REBALANCE is not allowed for XML table spaces. The REBALANCE keyword has not been included.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB319W</th>
<th>space_type creator|database space_name partition_number DISCARD has been set to no because it is not allowed with an XML Tablespace</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The DISCARD option is not allowed for XML table spaces. The DISCARD keyword has not been included.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB320W</th>
<th>UNLOAD EXTERNAL not allowed with XML table space. Defaulting to UNLOAD PAUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The UNLOAD option EXTERNAL is not a valid option with a REORG of an XML table space. The UNLOAD option will be set to PAUSE.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB323E</th>
<th>Exception Profile profile_creator|profile_name is corrupted and must be recreated</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The exception profile listed in the message has been damaged or corrupted and cannot be used.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> Recreate the exception profile.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB324W</th>
<th>Quiesce Tablespace is not supported with LISTDEFS. LISTDEF turned off for this utility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> LISDEF is not valid with QUIESCE TABLESPACESET. LISTDEF has been turned off for this utility.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB325W</th>
<th>Modify SYSIBM STATISTICS not supported for cloned object. Option turned off for this object</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The MODIFY STATISTICS utility does not delete statistics history records for clone tables because statistics are not collected for these tables. The option has been turned off for the cloned object.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB326W</th>
<th>Modify RUNSTATS REPOSITORY TABLE not supported for cloned objects. Option turned off for this object</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The MODIFY utility does not delete statistics records from the Db2 Change Accumulation Tool RUNSTATS repository tables for clone tables because statistics are not collected for clone tables. The option has been turned off for the cloned object.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB327W</th>
<th>REORG DISCARD was selected without including a Discard dataset</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> A REORG was specified with the DISCARD option, but the utility profile did not specify a discard data set. The discard records will not be saved.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB328W</th>
<th>Reallocate turned off for object related to a cloned table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The object listed is a clone of an object, has been cloned by another object, or is otherwise related to a clone. Cloned objects cannot be ALTERed. The object is skipped. This message will be generated for base objects with clones even if the Process Clones option is turned off.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GGCB330W</th>
<th>space_type creator|database space_name partition_number Rebalance has been turned off for this non-partitioned table space</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong> The REBALANCE option is not valid for non-partitioned table spaces. The REBALANCE keyword has not been included.</td>
<td></td>
</tr>
<tr>
<td><strong>User response:</strong> No action is required.</td>
<td></td>
</tr>
</tbody>
</table>
User response: No action is required.

GGCB331W space_type creator|database space_name
partition_number Rebalance has been turned off for this non-partitioned table space
Explanation: The RE Bal ance option is not valid for non-partitioned table spaces. The RE Bal anced keyword has not been included.
User response: No action is required.

GGCB332E LISTDEFS must be specified when
PROCESS RI=R is encountered
Explanation: The object profile specified to process RI objects at run time, but LISTDEFS were not specified in the job profile. LISTDEFS must be specified in the job options to use this feature.
User response: Either change the job profile and include LISTDEFS, or change the object profile to specify a different RI object processing option.

GGCB338I Preview Exception Report.................. y | n
Explanation: This message is used with message GGCB027I and displays the Preview Exception Report value, as set on the job Generation Options window. If set to Y, a batch job will be built to generate a triggered objects report; no utility JCL will be generated.
User response: No action is required.

GGCB339E You specified Preview Exception Report, but there are no exception profiles in the job profile
Explanation: The Preview Exception Report value was set to Y on the job Generation Options window, but there is no exceptions profile in the job profile. At least one exceptions profile must be in the job profile to preview an exception report.
User response: Add an exceptions profile to the job profile and rebuild the job.

GGCB340I No JCL was generated since you specified Preview Exception Report
Explanation: The Preview Exception Report value was set to Y on the job Generation Options window. This setting produces a report of objects that would be triggered by exception processing, without generating JCL.
User response: No action is required.

GGCB341I Processing jobs profile group
profile_group_name
Explanation: This informational message displays the name of the job profile group currently being processed.
User response: No action is required.

GGCB343E Invalid group. There must be at least one object and one utility profile in the group when the Preview Exception Report Jobs Generation option is No. Build terminated
Explanation: The Job Generation option Preview Exception Report is set to No. When this option is specified, a group in the job profile must contain at least one object profile and one utility profile. The build terminates.
User response: Either delete the group from the job profile or add the required profiles to the job group.

GGCB344E Invalid group. There must be at least one object profile and one exception profile in the group when the Preview Exception Report Jobs Generation option is No or an Autonomics Director option is selected. Build terminated
Explanation: The Job Generation option Preview Exception Report is set to Yes, or this profile will be used in an autonomic build. When these options are specified, a group in the job profile must contain at least one object profile and one exception profile. The build terminates.
User response: Either delete the group from the job profile or add the required profiles to the job group.

GGCB345E Invalid exception rule. The exception rule profile for profile_creator.profile_name does not exist in group job_group_name. Build terminated
Explanation: The exception rule for the profile and the job group listed in the message does not exist. The build terminates.
User response: Edit the job profile and define the exception rules for the job group.

GGCB347I Exception rule in utility profile
profile_creator.profile_name overridden to
Accepted \ Rejected \ Both
Explanation: The exception rule as specified in the utility profile was overridden by the exception rules specified in the job group.
User response: No action is required.
GGCB348W  Conditional exception profiles override the Evaluate Multiple Exception Profiles value to One at a time

Explanation: The Evaluate Multiple Exception Profiles field in the job generation options was set to A for all. However, exception rules are specified in a job group in the job profile, which overrides the Evaluate Multiple Exception Profiles setting, so it was set to O for One at a time.

User response: No action is required.

GGCB349W  Conditional exception profiles override the Reallocation Utility "Use ONLY Exception Profile Criteria" to Yes

Explanation: In the reallocation utility profile, the Use ONLY Exception Profile Criteria is set to No. However, exception rules are specified in a job group in the job profile, which overrides the Use ONLY Exception Profile Criteria setting, so it was set to Yes.

User response: No action is required.

GGCB350I  space_type creator\database space_name partition_number Object included via Referential Integrity explode

Explanation: The object listed in the message has been included in the job due to a referential integrity relationship.

User response: No action is required.

GGCB351I  Profile profile_name profile_creator Registration step has been turned off for this job

Explanation: The jobs profile listed in the message has the Include Registration Step option in the Job Generation options set to N. The job will not contain a registration step.

User response: No action is required.

GGCB352I  Override DB2 Buffer Size buffer_size M

Explanation: This message is used with message GGCB027I and shows the size of the Db2 buffer size override as set in the Job Generation options.

User response: No action is required.

GGCB353E  Generation user exit exit_name not found. Build processing aborted

Explanation: The pre- or post-generation user exit specified in the job profile was not found.

User response: Check that the user exit has been placed in the correct library.

GGCB354W  Generation user exit ended with return code 04. Build processing continues

Explanation: The pre- or post-generation user exit ended with a RC of 4. This RC means that an object was triggered. Build processing continues.

User response: No action is required.

GGCB355E  Generation user exit ended with return code 08. Build processing aborted

Explanation: The pre-or post-generation user exit ended with a return code of 8. This RC indicates a severe error. Build processing is aborted.

User response: No action is required.

GGCB356I  Override Secondary Allocation Percent "percent%"

Explanation: This message is used with message GGCB027I and lists the override for the secondary allocation percent.

User response: No action is required.

GGCB357I  Pre-Generation user exit has altered the build input

Explanation: This informational message states that a user exit has been called that altered the build input.

User response: No action is required.

GGCB358I  Post-Generation user exit has altered build output

Explanation: This informational message states that a user exit has been called after JCL generation that altered the build output.

User response: No action is required.

GGCB359E  Pre-Generation user exit has corrupted data

Explanation: A user exit was specified in the job and was called during processing. When the data was returned from processing by the user exit, Db2 Change Accumulation Tool found that the data has been corrupted. The build process is canceled.

User response: Check the contents of the user exit. One or more elements of the pre-generation sort key (step sequence, job sequence and/or object sequence) may have been incorrectly specified. Correct the sort key and resubmit the job.
GGCB360E  AGE, DATE, JOBS_PROFILE, and JOBS_CREATOR are blank; one of these must specify a valid value

Explanation: You must specify either the Date, Age, Jobs Profile Like, or Jobs Creator Like fields for the modify utility.

User response: Edit the utility profile and specify a value in one of the fields.

GGCB361I  Jobs Reporting Facility Cleanup is being performed by JOBS_CREATOR creator_name and JOBS_PROFILE profile_name

Explanation: This message lists the name of the job profile and job profile creator that are being used to clean up the Jobs Reporting Facility repository.

User response: No action is required.

GGCB363W  space_type creator|database space_name partition_number LISTDEFs are not supported for PAGE recovery. LISTDEF turned off for Recover in Step stepname

Explanation: LISTDEF is not valid with RECOVER to a page. LISTDEF has been turned off for this utility.

User response: No action is required.

GGCB364E  No utility profiles were found in the jobs profile or no utility found in any included utility profile; build process terminated

Explanation: The job build was terminated because there were no utility profiles contained in the job profile, or because none of the utility profiles included in the job profile specified utilities.

User response: Ensure that one or more utility profiles are included in the job profile. Check the included utility profiles to ensure that one or more utilities is specified.

GGCB365I  Modify utility Exception Rule set to "B"oth. Job Profile and/or Creator Like is specified. JCL is always generated in this case

Explanation: The exception rule for this utility has been set to B for both, since Jobs Profile Like and/or Jobs Creator Like criteria was entered. JCL will always be generated when Jobs Profile Like and/or Jobs Creator Like criteria are specified.

User response: No action is required.

GGCB366W  Group Parts By for utility detected. However, PARALLEL NO was specified or ZPARM REORG_LIST_PROCESSING is SERIAL

Explanation: Group Partitions By job or step was specified in a utility profile, but one of the following is true:

• The functionality will be limited due to the maximum number of list partitions that were specified.
• Group Partitions by has been turned off for one of the following reasons. The reason is displayed in the message text.
  - Db2 V8 | V9 LISTDEF does not support more than one PARTLEVEL number
  - PARALLEL NO was specified or ZPARM REORG_LIST_PROCESSING is SERIAL.
  - LISTPARTS 1 was specified
  - LISTPARTS is blank and ZPARM REORG_LIST_PROCESSING is SERIAL

The following text may appear in conjunction with the message text to provide additional information: parameter overrides Grouping of partitioned objects. where parameter can be LISTDEF, LISTPARTS, or PARALLEL NO. If LISTPARTS or PARALLEL NO, grouping of objects will be performed, but Db2 will process those objects serially.

User response: No action is required. Processing continues; however, Group By Partitions may be disabled or limited depending on the conditions.

GGCB367E  Insufficient storage for DB2 work area buffer

Explanation: Storage for a Db2 work area buffer could not be obtained.

User response: Increase your TSO region size and rerun the application.

GGCB368W  space_type creator|database space_name partition_number Sample will not be included for this LOB tablespace

Explanation: The Sample option is not allowed for LOB table spaces. The keyword will not be included.

User response: No action is required.
GGCB369W  space_type creator|database space_name
partition_number Table All has been set to No for this LOB tablespace

Explanation: The Table All option is not allowed for LOB table spaces. The keyword will not be included.

User response: No action is required.

GGCB370E  Current User ID does not have sufficient authority to perform a DISPLAY command

Explanation: Your authorization ID has not been granted privileges to issue the DISPLAY GROUP command.

User response: Check with your Db2 administrator to verify or obtain the proper authority.

GGCB372W  A system level backup was not found for this object

Explanation: No SLB was found was found that contains this object. The object is skipped.

User response: Ensure the object name was properly specified and an SLB exists that contains the object.

GGCB373W  Object was not included in the selected system level backup

Explanation: This object was not included in the selected system level backup. The object is skipped.

User response: Ensure that the object name was properly specified and the correct SLB was selected.

GGCB374W  Recovery Expert Image Copy will be bypassed for index defined with COPY NO

Explanation: The index was defined with COPY NO. Therefore, no image copy can be extracted from SLB. The index is skipped.

User response: No action is required.

GGCB375I  Maximum Number of Objects per Step......... nn

Explanation: This message is used with message GGCB027I and displays the Maximum nbr of objects per step value, as set on the Job Breakdown Options window.

User response: No action is required.

GGCB376I  Pad Jobs if Max not Exceeded.................y/n

Explanation: This message is used with message GGCB027I and displays the Pad Jobs if max not exceeded value, as set on the Job Breakdown Options window.

User response: No action is required.

GGCB377I  Partitioned Objects will be grouped together in the same Job/Step. This may override other job breakdown values.

Explanation: The Group by Partitions field was set for the utility profile to J for job or S for step. This setting determines how partitions of a partitioned object are grouped in the same job. This value may override whatever job breakdown options are set.

User response: No action is required.

GGCB378E  Unload Pause is not compatible with the Group Partitions value. Defaulting to Continue.

Explanation: You indicated that partitions are to be grouped together by job or step. REORG with UNLOAD PAUSE causes additional job steps to be generated. Therefore, the REORG option has been changed to UNLOAD CONTINUE.

User response: If you want REORG with UNLOAD PAUSE, you must change the Group by Partitions value to N.

GGCB380E  System Level Backup specified no longer exists

Explanation: The SLB selected no longer exists. The object is skipped.

User response: Select a different SLB.

GGCB381W  Recovery Expert image copy cannot be performed at the PART ALL level. Partitions processed individually

Explanation: SLBs taken with Db2 Recovery Expert do not allow image copies to be made at the all partition level. Objects in Db2 Change Accumulation Tool profiles that specify PART ALL will be exploded into individual partitions and the copies taken at the individual partition level.

User response: No action is required.

GGCB385W  space_type creator|database space_name partition_number Underlying VSAM file not found; object included for Recover only

Explanation: During a RECOVER utility JCL build, an
underlying VSAM file was not found. However, the RECOVER utility does not require a
STOGROUP-managed data set to be present before
execution, because RECOVER recreates the data set
from an image copy. Note that this applies to
STOGROUP-managed data sets only; user-managed
data sets must be manually created before running the
recovery.

User response: The object is included for RECOVER
processing; for other utilities, either create the
underlying file or remove the object from the object
profile.

GGCB386I dbname|tsname Indexes could not be
obtained for Alt DB.TS. DB2 REBUILD
INDEX job will build with source
system indexes.

Explanation: Index objects could not be found for
database.tablespace specified in the Alt Output
DBNAME.TSNAME field on the GGC$OXXLT panel.
Db2 REBUILD INDEX job will generated with index
names from original database.tablespace.

User response: User may want to correct the Alt
Output DBNAME.TSNAME field on the GGC$OXXLT
panel and rebuild a job or to change index object
names manually before submit Db2 REBUILD INDEX
job.

GGCB386W space_type creator|database space_name
partition_number TableSample will not be
included for this LOB table space

Explanation: TableSample was specified for the
RUNSTATS utility, but TableSample is not valid for
LOB table spaces. The keyword will not be included.

User response: No action is required.

GGCB387W space_type creator|database space_name
partition_number TableSample will not be
included for this table space since it
contains more than 1 table

Explanation: TableSample was specified for the
RUNSTATS utility, but TableSample is not valid for
table spaces that contain than one table. The keyword
will not be included.

User response: No action is required.

GGCB403E Invalid exception | utility profile
profile_creator|profile_name. The profile
will not be executed. No other profile
points to this profile. Build terminated

Explanation: The profile that is listed in the message
is not valid. It might have been deleted since the job
profile was built. The build process was terminated.

User response: Re-create the missing job profile, or
modify the job profile and include a valid profile and
rebuild the job.

GGCB404E Invalid exception profile
profile_creator|profile_name. There are no
exception rules specified. However,
there are conditional profiles in the jobs
group. Build terminated

Explanation: The exception profile that is listed in the
message is not valid. No exception rules are defined in
the profile. The build process was terminated.

User response: Update the exception profile and
specify exception rules for accepted and rejected
objects.

GGCB405E Invalid exception profile
profile_creator|profile_name. Both exception
rules point to the same profile. Build
terminated

Explanation: The exception profile that is listed in the
message is not valid. The exception rules that are
defined in the profile both point to the same utility
profile. The build process was terminated.

User response: Update the exception profile to specify
a different utility profile for accepted and rejected
objects.

GGCB407I Reallocation will use DB2 real-time
statistics in addition to MVS catalog
statistics.

Explanation: The reallocation utility settings in the
utility profile specified that when calculating
reallocation criteria, Db2 real-time statistics are to be
used in addition to MVS catalog statistics.

User response: No action is required.

GGCB408W space_type creator|database space_name
partition_number DB2 real-time statistics
are unavailable for this object.

Explanation: The reallocation utility settings in the
utility profile specified that when calculating
reallocation criteria, Db2 real-time statistics are to be
used in addition to MVS catalog statistics. However,
Db2 real-time statistics are not available for the object
that is listed in the message.

User response: No action is required; MVS catalog
statistics will be used for reallocation calculations.

GGCB409W TS database space_name partition_number
DSSIZE and/or NPAGES is 0. DB2 Real
Time Statistic SPACEUSED_PCT is set
to 0.

Explanation: The exception condition
SPACEUSED_PCT was specified, but either DSIZE or NPAGES was found to be less than or equal to 0; therefore, SPACEUSED_PCT is set to 0.

User response: No response is required.

GCGB414I Wildcarded objects selected by partition cannot include RI via LISTDEFS. RI related objects will be exploded during build.

Explanation: The R option for Process RI, which specifies that RI is expanded at utility run time, was selected. However, objects in the object profile are wildcarded objects that are processed by partition. Those objects cannot be expanded at utility run time because the LISTDEF RI and the PARTLEVEL keywords are mutually exclusive.

User response: No action is required. Affected wildcard objects will be exploded at build time.

GCGB500I space_type creator\database space_name partition_number AUX has been set to YES for this Partition by Growth Tablespace

Explanation: The object listed in the message is a partitioned-by-growth table space, which requires AUX YES. AUX has been changed to YES.

User response: No action is required.

GCGB504I space_type creator\database space_name partition_number LISTDEFS were overridden since RUNSTATS INDEX(indexname) was requested.

Explanation: Object-specific utilities were specified for the object listed in the message. Therefore, LISTDEFS will be turned off for this object.

User response: No action is required.

GCGB505I space_type creator\database space_name partition_number LISTDEFS were overridden since RUNSTATS TABLE(tablename) was requested.

Explanation: Object-specific utilities were specified for the object listed in the message. LISTDEFS will be turned off for this object.

User response: No action is required.

GCGB506I space_type creator\database space_name partition_number RUNSTATS TABLE(ALL) was overridden since object-specific table stats were requested.

Explanation: Object-specific utilities were specified for the object listed in the message. Therefore, RUNSTATS TABLE ALL was turned off.

User response: No action is required.

GCGB507I space_type creator\database space_name partition_number RUNSTATS INDEX(ALL) was overridden since object-specific index stats were requested.

Explanation: Object-specific utilities were specified for the object listed in the message. Therefore, RUNSTATS INDEX ALL was turned off.

User response: No action is required.

GCGB508I space_type creator\database space_name partition_number LISTDEFS were overridden since RUNSTATS NUMCOLS was requested.

Explanation: Object-specific utilities were specified for the object listed in the message. Therefore, LISTDEFS will be turned off for this object.

User response: No action is required.

GCGB509W space_type creator\database space_name partition_number REORG SHRLEVEL(CHANGE) mapping table will be ignored for this LOB table space

Explanation: The object listed in the message is a LOB table space and REORG SHRLEVEL (CHANGE) was specified. A mapping table is not required for a REORG of a LOB space. The mapping table definitions will be ignored.

User response: No action is required.

GCGB510I space_type creator\database space_name partition_number AUX has been set to YES for this Partitioned Base TS

Explanation: The object listed in the message is a partitioned base table space, which requires AUX YES. AUX has been changed to YES.

User response: No action is required.

GCGB511W space_type creator\database space_name partition_number REORG SHRLEVEL(CHANGE) not supported on BASE TS defined as LOG NO.

SHRLEVEL reset to NONE

Explanation: The object listed in the message is a LOB table space and REORG SHRLEVEL (CHANGE) was specified. The base table space was defined as NOT LOGGED, therefore, SHRLEVEL CHANGE is not allowed. SHRLEVEL has been set to NONE.
**User response:** No action is required.

**Explanation:** AUX YES was specified and inline image copies will be taken on the base table space and LOB table spaces being reorganized. The COPYDDN and RECOVERYDDN keywords must specify a TEMPLATE name with &DB, or &SN for the inline copies. AUX has been changed to NO.

**User response:** Correct the template and resubmit.

**Explanation:** AUX YES was specified and inline image copies will be taken on the base table space and LOB table spaces being reorganized. The COPYDDN and RECOVERYDDN keywords must specify a TEMPLATE name with &DB, or &SN for the inline copies. AUX has been changed to NO.

**User response:** No action is required.

**Explanation:** A FlashCopy was requested but the job profile did not specify the templates option. Templates are required for FlashCopy copies.

**User response:** Edit the job profile to specify job templates and resubmit the job.

**Explanation:** AUX YES was specified and inline image copies will be taken on the base table space and LOB table spaces being reorganized. The COPYDDN and RECOVERYDDN keywords must specify a TEMPLATE name with &DB, or &SN for the inline copies. AUX has been changed to NO.

**User response:** No action is required.

**Explanation:** The object listed in the message is a temporal table space. The DISCARD option cannot be specified for temporal table spaces. The DISCARD option will be ignored.

**User response:** No action is required.

**Explanation:** The object listed in the message is a temporal table space. The DISCARD option cannot be specified for temporal table spaces. The DISCARD option will be ignored.

**User response:** No action is required.

**Explanation:** A FlashCopy was requested for the object listed in the message, but the associated index was defined as COPY NO. The object will be skipped.

**User response:** No action is required.

**Explanation:** The object listed in the message is a temporal table space. The DISCARD option cannot be specified for temporal table spaces. The DISCARD option will be ignored.

**User response:** No action is required.

**Explanation:** The object listed in the message is a temporal table space. The DISCARD option cannot be specified for temporal table spaces. The DISCARD option will be ignored.

**User response:** No action is required.

**Explanation:** The object listed in the message is a temporal table space. The DISCARD option cannot be specified for temporal table spaces. The DISCARD option will be ignored.

**User response:** No action is required.

**Explanation:** A FlashCopy was requested but the job profile did not specify the templates option. Templates are required for FlashCopy copies.

**User response:** Edit the job profile to specify job templates and resubmit the job.

**Explanation:** AUX YES was specified and inline image copies will be taken on the base table space and LOB table spaces being reorganized. The COPYDDN and RECOVERYDDN keywords must specify a TEMPLATE name with &DB, or &SN for the inline copies. AUX has been changed to NO.

**User response:** No action is required.

**Explanation:** A FlashCopy was requested for the object listed in the message, but the associated index was defined as COPY NO. The object will be skipped.

**User response:** No action is required.

**Explanation:** A FlashCopy was requested but the job profile did not specify the templates option. Templates are required for FlashCopy copies.

**User response:** Edit the job profile to specify job templates and resubmit the job.

**Explanation:** AUX YES was specified and inline image copies will be taken on the base table space and LOB table spaces being reorganized. The COPYDDN and RECOVERYDDN keywords must specify a TEMPLATE name with &DB, or &SN for the inline copies. AUX has been changed to NO.

**User response:** No action is required.

**Explanation:** A FlashCopy was requested for the object listed in the message, but the associated index was defined as COPY NO. The object will be skipped.

**User response:** No action is required.

**Explanation:** A FlashCopy was requested but the job profile did not specify the templates option. Templates are required for FlashCopy copies.

**User response:** Edit the job profile to specify job templates and resubmit the job.
be the result of exception processing.

**Explanation:** Dependency checking failed for the object that is listed in the message. Either the dependent table space or the base table space for the listed LOB was not found, or one of those objects was excluded via exception processing.

**User response:** Ensure that when one member of a LOB referentially related table space set is present in the object profile, all members in that set are present. If the message indicates that the object may have been excluded via exception processing, examine the object and exception profiles and adjust them as required.

---

**GGCB524W**

```
space_type creator\|database space_name
partition_number
```

**Missing LOB TS(s) for this BASE TS | [LOB validation failed for this TS. Incomplete LOB related TS set.] Object excluded for utility_name utility. The exclusion of this object could possibly be the result of exception processing.

**Explanation:** Dependency checking failed for the object that is listed in the message. Either the dependent table space or the base table space for the listed LOB was not found, or one of those objects was excluded via exception processing. The object is excluded from processing.

**User response:** Ensure that if one member of a LOB referentially related table space set is present in the object profile, all members in that set are present. If the message indicates that the object may have been excluded via exception processing, examine the object and exception profiles and adjust them as required.

---

**GGCB525W**

```
space_type creator\|database space_name
partition_number
```

**Cannot reallocate HASH SPACE. The associated IX is not included in the objects profile.

**Explanation:** The object listed in the message is an inline LOB. UNLOAD INTERNAL and UNLOAD ONLY are not allowed with inline LOBs. UNLOAD was changed to CONTINUE.

**User response:** No response required. To eliminate this message, change the Unload Data option on panel GGC$UREO to C and rebuild the job.

---

**GGCB526W**

```
 Reallocate with Dataset Manager turned off because of Hash Access objects. DB2 ALTER must be used to modify Hash Space
```

**Explanation:** Dataset Manager was selected for reallocation, but hash space reallocation can only be done with DB2 ALTER.

**User response:** No action is required. DB2 ALTER will reallocate the hash space.

---

**GGCB527E**

```
Both HASHSPACE and DATASIZE percent are blank in the Reallocation Utility. Hash Space will not be reallocated
```

**Explanation:** A reallocation utility job was submitted against hash access tables created under Db2 V10, however the reallocation utility profile does not contain the required HASHSPACE or DATASIZE parameters for reallocating these tables.

**User response:** Update the reallocation profile to define the HASHSPACE or DATASIZE parameters, then resubmit the job.

---

**GGCB528W**

```
Reallocation of hash space is requested by DATASIZE, but real time statistics are not available. HASHSPACE will be used instead
```

**Explanation:** DATASIZE is a real-time statistic that is only available when an exception profile with real-time statistics exceptions is included in the job. Since an exception profile with real-time statistics was not included in the job profile, DATASIZE cannot be used.

**User response:** Add an exception profile with real-time statistics to the job profile and rebuild the job.

---

**GGCB529W**

```
space_type creator\|database space_name
partition_number
```

**Reallocated HASH SPACE has been truncated to 128TB

**Explanation:** The reallocated hash space was truncated to the maximum value listed in the message.

**User response:** No action is required.

---

**GGCB531E**

```
```

**Templates have been turned on for utility_name.

**Explanation:** If templates are set to No in job options, the template value will be set to Yes for this utility because it is required for TEMPLATEDD support.

**User response:** No action is required.
GGCB535W  Default setup | utility_name  
TEMPLATETED data set does not exist.

Explanation: The template data set that is included in the utility profile, or in the setup panels, no longer exists.

User response: Update the utility profile and select a template name from a valid data set, or specify a template via Db2 Change Accumulation Tool.

GGCB540W  Reallocation with Dataset Manager turned off when DROPping Pending Changes. DB2 ALTER must be used to DROP Pending Changes

Explanation: Use of Dataset Manager for reallocation was specified in combination with DROP Pending Changes. This combination is not allowed. Db2 ALTER must be used for reallocation when pending changes will be dropped. Reallocation with Dataset Manager was turned off.

User response: No action is required.

GGCB544W  DROP Pending Changes will not be generated because there is no exception profile in the job

Explanation: DROP pending changes was requested for an object in a reallocation utility profile, but an exception profile that specifies the PENDING_DEF_CHGS exception condition was not included in the job profile. The DROP pending changes request is ignored.

User response: If pending changes should be dropped for objects, include an exception profile with the PENDING_DEF_CHGS exception condition in the job profile.

GGCB547W  space_type creator | database space_name partition_number RUNSTATS RESET ACCESSPATH has been turned off for this LOB table space.

Explanation: RUNSTATS RESET ACCESSPATH was included in the utility profile, however, the object listed in the message is a LOB. RESET ACCESSPATH is not valid for LOBs. The keyword will be removed from the RUNSTATS utility JCL.

User response: No action is required.

GGCB548W  space_type creator | database space_name partition_number After RUNSTATS RESET ACCESSPATH is executed, the statistics cannot be rolled back to previous values.

Explanation: RUNSTATS RESET ACCESSPATH was included in the utility profile. RESET ACCESSPATH should be used only when you want to reset all the access path statistics for all the objects in a given table space. If this function is executed, all previously collected access path statistics for the objects in the target table space will be reset or removed.

User response: No action is required; however, resetting statistics cannot be reversed. If you want to retain the ability to roll back statistics, update the utility profile, set RESET ACCESSPATH to NO, and regenerate the JCL.

GGCB549W  space_type creator | database space_name partition_number RUNSTATS RESET ACCESSPATH is not valid at the partition level. Partition will be ignored.

Explanation: RUNSTATS RESET ACCESSPATH was included in the utility profile, and the object listed in the message was included at the partition level. RESET ACCESSPATH can be used only for ALL partitions of an object.

User response: No action is required.

GGCB559E  Error adding task: task_name

Explanation: An error occurred when calling the Db2 administrative task scheduler’s SYSPROC.ADMIN_TASK_ADD stored procedure. This error lists the task name that encountered the error, and is followed by additional messages returned from the stored procedure.

User response: Examine the messages returned from the stored procedure to determine the course of action. Contact IBM Software Support if you require assistance.

GGCB560I  Scheduled Taskname: task_name Dataset:  
data_set_name Trigger Task:  
trigger_task_name Trigger Cond:  
trigger_condition Trigger Code:  
trigger_code

Explanation: This informational message displays the scheduled task name, its associated dataset, and the trigger information associated with the task.

User response: No action is required.

GGCB571W  function_type for utility_name utility has been turned off because a required TEMPLATETED template name is missing.

Explanation: A template data set has been deleted or renamed, so the template name no longer exists.

User response: Update the utility profile or the setup template DD default value to specify a valid template data set, member, and name.
**GGCB572E**  
Required TEMPLATEDDD template name missing. utility_name has been turned off.

**Explanation:** A template data set may have been deleted or renamed.

**User response:** Update the utility profile or the setup template DD default value to specify a valid template data set, member, and name.

---

**GGCB573I**  
Template data sets are not available for non-DB2 utility modes. The data set name created via Image Copy Options will be generated.

**Explanation:** An image copy utility mode was selected other than Db2, and a template data set and member was also specified. Template data sets are not valid with non-Db2 image copy modes. The image copy data set name will be generated using image copy DSN generation options.

**User response:** No action is required.

---

**GGCB574W**  
\texttt{database space_name partition_number Tape Stacking has been turned off because this table space contains a LOB column and the AUX keyword | Tape Stacking has been turned off for this LOB table space with AUX Yes | Tape Stacking has been turned off because this table space with a LOB column will default AUX to Yes | Tape Stacking has been turned off for this LOB table space because AUX will default to Yes}

**Explanation:** Tape stacking is not valid for the reasons that are listed in the message. The job profile uses templates and the specified unit type is a tape device. However, if one of the following conditions are met, tape stacking is turned off:

- The REORG utility profile contains the AUX YES keyword and the table space is a LOB or contains a LOB column.
- The REORG utility profile contains the AUX NO keyword or the AUX field was left blank, but the table space is LOB or contains a LOB column; therefore, Db2 requires and defaults to AUX YES.

Under certain conditions, the AUX keyword is not included in the JCL; however, Db2 defaults to AUX YES at run time. For detailed information about those conditions, consult the documentation for your version of Db2.

**User response:** No action is required.

---

**GGCB575W**  
LISTPARTS keyword is only valid when LISTDEFS are specified. LISTPARTS will be turned off.

**Explanation:** The LISTPARTS keyword was specified in a REORG utility profile, but LISTDEFS have not been specified. The LISTPARTS keyword has been removed from the utility JCL.

**User response:** Update the job profile and specify Y in the Generate Listdefs field in the job options.

---

**GGCB578E**  
No recovery information was found in SYSCOPY for this space.

**Explanation:** An image copy was specified as the source for the unload job, but no image copy information was found in SYSCOPY for the table space. The unload job cannot be generated.

**User response:** Locate the image copy data set, or specify a different source for the unload job.

---

**GGCB580W**  
\texttt{space_type creator | database space_name partition_number REORG TABLESPACE option SORTDATA NO is not allowed with SHRLEVEL CHANGE. SORTDATA will be changed to YES.}

**Explanation:** A REORG TABLESPACE SHRLEVEL CHANGE was specified with SORTDATA NO in the utility profile. This combination is not allowed. The SORTDATA keyword will be added to the utility JCL.

**User response:** No action is required.

---

**GGCB584E**  
\texttt{space_type creator | database space_name partition_number REORG for partition-by-growth hash TS cannot be done by partition. Object excluded.}

**Explanation:** A partition-by-growth hash table space must be reorganized in its entirety. When a REORG TABLESPACE on a PBG hash table space violates this restriction, this message is issued and the object is excluded from REORG TABLESPACE processing.

**User response:** Update the object profile. On the Include Tablespace Selection panel, specify all partitions for the partition-by-growth table space by selecting the table space that contains ALL in the Part column.

---

**GGCB585E**  
\texttt{space_type creator | database space_name partition_number REORG for partition-by-growth hash TS missing one or more partitions. Object excluded.}

**Explanation:** A partition-by-growth hash table space must be reorganized in its entirety. When a REORG TABLESPACE on a PBG hash table space violates this restriction, this message is issued and the object is excluded from REORG TABLESPACE processing.

**User response:** No action is required.
User response: Update the object profile. On the Include Tablespace Selection panel, specify all partitions for the partition-by-growth table space by selecting the table space that contains ALL in the Part column.

GGCB586I  

space_type creator database space_name
partition_number REPAIR CATALOG has been turned off for this LOB XML table space.

Explanation: REPAIR CATALOG is not valid for LOB or XML spaces. The keyword has been removed from the utility JCL.

User response: No action is required.

GGCB587W  

space_type creator database space_name
partition_number REPAIR CATALOG TEST has been turned off for this LOB XML table space.

Explanation: REPAIR CATALOG TEST is not valid for LOB or XML spaces. The keyword has been removed from the utility JCL.

User response: No action is required.

GGCB588I  

ORIGINOBID keyword will be generated because it is required with COPYDDN.

Explanation: COPYDDN requires the ORIGINOBID keyword. The ORIGINOBID keyword is included in the job.

User response: No action is required.

GGCB595E  

Image Copy data_set_name not found. COPYDDN has been turned off. Inline Image Copy data_set_name not found. COPYDDN has been turned off. Non-inline Image Copy data_set_name not found. COPYDDN has been turned off.

Explanation: The image copy data set name that is listed in the message was not found. The COPYDDN DD requires a valid image copy.

User response: Ensure that the data set name is valid and is available for processing. When the problem has been identified, resubmit the job.

GGCB597E  

TS IX dbname tname mmm Object defined in object profile not found in the catalog. Object was altered or dropped.

Explanation: The non-wildcarded non-partitioned object could not be found in the Db2 catalog.

User response: Either recreate the object or delete the object from the object profile.

GGCB600I  

space_type creator database space_name
partition_number Autonomic Action inserted updated for action
ID=action_id

Explanation: This message provides details about the object for which the action was generated. It also states whether the action was added to the list to be run during the maintenance window or whether the action was updated, and lists the generated action ID.

User response: No action is required.

GGCB601I  

space_type creator database space_name
partition_number REORG ALL PARTS value exceeded.
This table space will be converted to PART ALL.

Explanation: A value was specified in the REORG utility profile for “REORG ALL PARTS if percentage exceeded”. The value was exceeded; therefore, all partitions will be reorganized with the REORG TABLESPACE.

User response: No action is required.

GGCB602I  

Autonomic Build History ID = history_ID

Explanation: This message provides the history ID for the autonomic build.

User response: No action is required.

GGCB603W  

REORG ALL PARTS value exceeded. The current unit of work has been rolled back due to deadlock or timeout in module_name

Explanation: A -91 SQL code was encountered during the current unit of work. The current unit of work was the victim in a deadlock, or experienced a timeout, and must be rolled back.

User response: No action is required. The application terminates.

GGCB604E  

TS REORG for a PBR2 requires Generate Templates = Y. TS REORG disabled.

Explanation: A table space REORG was specified for a PBR2 space. This option requires the Generate Templates field in the job generation options to be set
to Y. The PBR2 space is excluded from this utility.

User response: In the job profile, specify Generate Templates = Y.

GGCB607E TS REORG for a PBR2 requires &&&PART in the copy data set. TS REORG disabled.

Explanation: A table space REORG was specified for a PBR2 space. This option requires that the &&&PART symbolic be included in the copy data set name. The PBR2 space is excluded from this utility.

User response: In the utility profile, specify the &&&PART symbolic as part of the data set name.

GGCB608I Specifying the partition number for the page dsnum.

Explanation: A PBR2 object was detected with the RECOVER PAGE option. The required DSNUM parameter was not specified; however, the object was included by partition number. Therefore, that partition number is used for the DSNUM parameter.

User response: No action is required.

GGCB609E DSNUM parameter is required for PBR2 recover to page. Recovery disabled.

Explanation: A PBR2 object was detected with the RECOVER PAGE option. The required DSNUM parameter was not specified, and all partitions were selected for the object. This requires that the DSNUM symbolic must be included in the copy data set name. The PBR2 object is excluded from this utility.

User response: Update the RECOVER utility profile to include the Page dsnum value.

GGCB610I TS | IX dbname tsname nnnn Object defined in object profile not found in the catalog. Object may have been altered or dropped. Retrying with part nnnn

Explanation: The non-wildcarded non-partitioned object could not be found in the Db2 catalog. Db2 Change Accumulation Tool will retry to retrieve the object as a partitioned object.

User response: No action is required.

GGCB611I TS | IX dbname tsname nnnn Object was converted to a partitioned object.

Explanation: A non-wildcarded non-partitioned object was successfully converted to a partitioned object. The object will be treated as a partitioned object in generated JCL.

User response: No action is required.

GGCB612W space_type creator database space_name partition_number Unload Pause | Only | External not allowed with SHRLEVEL REFERENCE. Defaulting to Unload Continue.

Explanation: When a REORG with SHRLEVEL REFERENCE has been specified, the Unload parameter must be set to Continue. GGC set the UNLOAD parameter to CONTINUE.

User response: No action is required.

GGCB613W space_type database_name tablespace_name partition COPYTOCOPY turned off for this object because it is not supported.

Explanation: A COPYTOCOPY utility was specified for this object, but the COPYTOCOPY utility is not valid for this object. The COPYTOCOPY utility will not be run on this object.

User response: For information about restrictions for running the COPYTOCOPY utility, refer to the Utility Guide and Reference for your version of Db2.

GGCB616I Page Validation was selected for this utility profile in a previous release of Db2 Change Accumulation Tool, but is no longer valid.

Explanation: The utility profile was created in a previous release and included page validation options. The page validation option has been removed from Db2 Change Accumulation Tool; therefore, this option is not valid. The option will be removed from the utility profile.

User response: No action is required.

GGCB652I Table(ALL) is not valid with the Set Profile keyword. Table(tablename) will be generated.

Explanation: The SET PROFILE option was specified, and TABLE (ALL) was also specified. This combination is invalid. TABLE(tablename) syntax is generated.

User response: No action is required.

GGCB653W Tablesample will not be included with Set Profile.

Explanation: The SET PROFILE option was specified, and TABLESAMPLE was also specified. This combination is invalid. The TABLESAMPLE keyword is removed.

User response: No action is required.
GGCB658I space_type database_name tablespace_name
Non-Partitioning Index detected for this table space. Partitions will be reorganized together.

Explanation: The table space that is listed in the message has a nonpartitioned index and Y was specified in the Group Partitions with NPI field in the REORG utility profile. All partitions of the table space will be grouped into the same job step, regardless of the job breakdown options.

User response: No action is required.

GGCB668W space_type database_name tablespace_name
partition [XML object excluded for Check Data. Use Include All XML spaces with base objects to perform the check.]
XML object excluded for Check Data. Check the corresponding base object.]

Explanation: An XML object was included in the object profile. The CHECK DATA utility only applies to the base object. Therefore, the XML object will be excluded.

User response: Include the base table space for the XML table space and resubmit the job.

GGCB669W The specified mapping table table_creator,table_name does not exist in the Db2 catalog.

Explanation: A user-specified mapping table was provided for the online REORG utility with SHRLEVEL CHANGE, but the table does not exist.

User response: Ensure that the mapping table exists before job run time. If the job is submitted with a mapping table name that does not exist, a DSNU056I message is received along with a return code of 8.

GGCB670W space_type creator | database space_name partition_number Copy
SHRLEVEL(CHANGE) not supported with FlashCopy on not logged LOB table spaces.

Explanation: For an image copy of a LOB table space that is not logged, SHRLEVEL CHANGE is not allowed when FLASHCOPY YES or FLASHCOPY CONSISTENT has been specified. Db2 Change Accumulation Tool changes SHRLEVEL to REFERENCE and the build continues.

User response: No action is required.

GGCB671I Pre-Generation User Exit | Post-Generation User Exit has started

Explanation: This message indicates that the pre-generation or post-generation user exit started.

User response: No action is required.

GGCB675W RI keyword will be generated with RI B and LISTDEFS. Related objects will be included at job run time.

Explanation: The object profile specified that RI is to be expanded at build time. However, the LISTDEF job option is set to Y. If the LISTDEF job option is set to Y, RI is always expanded at run time.

User response: No action is required; if this is not the desired result, change the settings in the job options or in the object profile.


Explanation: Establishing the Db2 Change Accumulation Tool runtime environment failed.

User response: Ensure that the control file and configuration ID are correct. Ensure that plans have been correctly bound. Ensure that all data sets are correct.


Explanation: The retrieval of Db2 Change Accumulation Tool plan names from the control file failed.

User response: Ensure that the control file update jobs have run, and the plan binds have been run. Ensure that the configuration ID is correct.

GGCBE03E Error: Call attach initialization failed.

Explanation: Call attach facility initialization failed.

User response: Make sure the Db2 data sets for the SSID are correct by entering option 0.1 from the Db2 Change Accumulation Tool main menu.

GGCBE04E Error: Profile not found. RC=12. Terminating. Creator: profile_creator Profile name: profile_name

Explanation: The input profile creator and name was not found in the Db2 Change Accumulation Tool repository.

User response: Verify the profile name, creator, and profile type.
Explanation: The export data set does not exist.
User response: Create a valid export data set with LRECL= 4096 and retry.

Explanation: The export data set is in use by another user.
User response: Export requires exclusive access. Retry when the data set is accessible.

Error: Export data set does not exist. Please create an export data set with LRECL= 4096 and try again. RC=16.
Explanation: The export data set does not exist.
User response: Create a valid export data set and try again.

Error: Export data set is partitioned and no member was specified. RC=12. Aborting.
Explanation: The member name for the export data set does not exist.
User response: Specify a member name and try again.

Explanation: The member name for the export data set already exists.
User response: Select a member name that does not exist and try again.

Explanation: A member name was specified but the export data set is not a partitioned data set.
User response: Clear the member name and try again.

Explanation: The export data set has an incorrect LRECL. The incorrect data set may have been specified.
User response: Ensure the correct data set was specified. Use a data set with LRECL = 4096.

Explanation: Opening the export data set failed.
User response: Ensure that the data set name is correct. Try to browse or edit the data set.

Explanation: The SSID that the profiles are being exported to is not available in the Db2 Change Accumulation Tool control file. The SSID must exist in the control file in order to export profiles.
User response: Use Tools Customizer to associate the SSID and regenerate the export jobs, or add the SSID via option 0.1 on the Db2 Change Accumulation Tool main menu.

Error: This profile's data has been corrupted in the DLC tables. It must be re-created. RC=8. Creator: profile_creator Profile name: profile_name
Explanation: The profile that is listed in the message has been corrupted and cannot be exported.
User response: Try to edit the profile in the ISPF interface. You might have to delete the profile and re-create it.

Error: Unable to export profile. RC=8. Creator: profile_creator Profile name: profile_name
Explanation: Export of the profile failed.
User response: Review related messages to determine the cause of the failure.

Export successful. Creator: profile_creator PROFNAME: profile_name
Explanation: The profile that is listed in the message has been successfully exported.
User response: No action is required.

Printing out the exported profiles: Profile1 Profile2 Profile3...
Explanation: This message displays the name of each profile that was exported.
User response: No action is required.

Number of profile_type profiles found: nnnn
Explanation: This message displays the number of profiles that were encountered. profile_type is either job, exception, utility, or object.
User response: No action is required.


Explanation: The GGC#DATA input data is damaged.
User response: Regenerate the job using Tools Customizer. If the error recurs, contact IBM Software Support.


Explanation: The routine to parse the GGC#DATA input records failed.
User response: Contact IBM Software Support.

Creator: profile_creator
Profile name: profile_name

Explanation: The profile that is listed in the message could not be found. It is likely that the profile filter did not return any profiles for export.
User response: Review the export profile filters.

GGCBE22E  Export failed. Creator: profile_creator
PROFNAME: profile_name
RC=8. Internal code: error_code

Explanation: The call to GGC$IMPD had a non-zero return code.
User response: Review related messages to determine the cause of the failure.

GGCBE23I  Number of profile_type profiles successfully exported: nnnn

Explanation: This message displays the number of profiles that were successfully exported. profile_type is either job, exception, utility, or object.
User response: No action is required.

GGCBE24I  Number of errors found: nnnn

Explanation: This message displays the number of error messages issued.
User response: No action is required.


Explanation: Establishing the Db2 Change Accumulation Tool runtime environment failed.
User response: Ensure that the control file and configuration ID are correct. Ensure that plans have been correctly bound. Ensure all data sets are correct.


Explanation: The retrieval of Db2 Change Accumulation Tool plan names from the control file failed.
User response: Ensure that the control file update jobs have run, and the plan binds have been run. Ensure that the configuration ID is correct.

GGCBI03E  Error: Call attach initialization failed. Return code: return_code. Reason code: reason_code
Setting RC=12. Terminating.

Explanation: Call attach facility initialization failed.
User response: Make sure the Db2 data sets for the SSID are correct by entering option 0.1 from the Db2 Change Accumulation Tool main menu.


Explanation: The import data set could not be allocated.
User response: Ensure that the data set name is correct. Try to browse or edit the data set.

GGCBI05E  Error: Import data set is partitioned and no member was specified. RC=12. Aborting.

Explanation: The member name was not specified for the import data set, which is partitioned.
User response: Specify a member name and try again.

GGCBI06E  Error: A member name is not allowed on a non-partitioned data set. RC=16. Aborting.

Explanation: A member name was specified, but the import data set is not a partitioned data set.
User response: Clear the member name and try again.

GGCBI07E  Error: Import data set must have an LRECL of 4096. RC=16. Aborting.

Explanation: The import data set has an incorrect LRECL. The incorrect data set may have been specified.
User response: Ensure that the correct data set was specified.
GGCBI08E Error: Member does not exist in the partitioned data set. RC=12. Aborting.
Explanation: The member name for the import data set does not exist.
User response: Locate or create the exported member name.

Explanation: Opening the export data set failed.
User response: Make sure the data set name is correct. Try to browse or edit the data set.

Explanation: The SSID that the profiles are being imported to is not available in the Db2 Change Accumulation Tool control file. The SSID must exist in the control file in order to import profiles.
User response: Use Tools Customizer to associate the SSID and regenerate the import jobs, or add the SSID via option 0.1 on the Db2 Change Accumulation Tool main menu.

GGCBI13W Warning: Import successful but the RECOVER RBA/LRSN was not found in SYSCOPY. This value will be discarded. RC=4. Creator: profile_creator Profile name: profile_name
Explanation: The imported profile contained a recovery scenario that contained a 6-byte recovery RBA or LRSN, and the new SSID has 10-byte RBA/LRSN values. Db2 Change Accumulation Tool attempted to convert the RBA/LRSN from 6 to 10 bytes, but the program to convert the value failed.
User response: Create this profile from scratch.

GGCBI14I Import successful. Creator: profile_creator PROFILENAME: profile_name
Explanation: The import was successful.
User response: No action is required.

Explanation: Import does not support profiles from Db2 Automation Tool Version 1.3 and earlier.
User response: Create this profile from scratch.

GGCBI16I Printing out imported profiles:
Profile1 Profile2 Profile3...
Explanation: This message displays the name of each profile that was imported.
User response: No action is required.

Explanation: This is an internal error.
User response: Contact IBM Software Support.

Explanation: This is an internal error.
User response: Contact IBM Software Support.

GGCBI21I Number of profile_type profiles found: nnnn
Explanation: This message displays the number of profiles that were encountered. profile_type is either job, exception, utility, or object.
User response: No action is required.

Explanation: The data set that was specified as the source for profiles to be imported is not a valid export data set.
User response: Make sure the import data set contains at least one exported profile.

Explanation: The routine to parse the GGC#DATA input records failed.
User response: Contact IBM Software Support.

Explanation: The GGC#DATA input data is damaged.
User response: Regenerate the job using Tools Customizer. If the error recurs, contact IBM Software Support.
GGCBI25E  Import failed. Creator: profile_creator
        PROFNAME: profile_name return code: return_code.

Explanation: A call to GGC$IMPD received a non-zero return code. The call failed.
User response: Review related messages to determine the cause of the failure.

GGCBI26I  Number of profile_type profiles successfully imported: nnnn

Explanation: This message displays the number of profiles that were successfully imported. profile_type is either job, exception, utility, or object.
User response: No action is required.

GGCBI27I  Number of errors found: nnnn

Explanation: This message displays the number of error messages issued.
User response: No action is required.

GGCBI28I  Number of warnings issued: nnnn

Explanation: This message displays the number of warning messages issued.
User response: No action is required.

GGCM001E  Invalid value entered - Please enter a valid value from the list displayed.

Explanation: You have entered an invalid value.
User response: Enter a valid value.

GGCM002E  A valid DB2 Subsystem ID is a required field. Please enter a valid Subsystem ID.

Explanation: You must enter a valid Db2 subsystem ID in order to continue.
User response: Enter a valid Db2 subsystem ID.

GGCM003E  User is not authorized to enter Shared Profile Support

Explanation: You are not authorized to enter the Data Page Display for the specified subsystem.
User response: Check with your systems programmer to obtain proper authority. The entered command will not be processed.

GGCM004E  Invalid Subsystem ID entered

Explanation: An undefined subsystem ID has been encountered.
User response: Correct the value specified in the DB2 Subsystem ID field.

GGCM005E  Requested object not found

Explanation: The requested object was not found in the Db2 catalog.
User response: Change the selection criteria and retry the process.

GGCM006E  Invalid line command entered

Explanation: A invalid value was entered in the line command area.
User response: Enter one of the a valid line commands listed on the screen.

GGCM007E  Page Number out of range

Explanation: The page number is out of range.
User response: Enter a valid page number.

GGCM008E  Page number must be numeric

Explanation: The page number entered was not a valid numeric.
User response: Enter a valid page number.

GGCM009E  Page number must be between 0 and maximum_page_number

Explanation: The page number entered was out of the valid page range for the space.
User response: Enter a valid page number.

GGCM011I  Page changes have been discarded

Explanation: The page display editor changes have been discarded.
User response: To apply editor changes, exit using the PF3 key.

GGCM012I  STOP DATABASE command successful

Explanation: The STOP DATABASE command has been issued and completed successfully.
User response: No action is required.

GGCM013I  START DATABASE command successful

Explanation: The START DATABASE command has been issued and completed successfully.
User response: No action is required.
**GGCM014I** Page changing is not available while in edit mode

**Explanation:** You cannot change pages while updating a space’s page.

**User response:** Locate the proper page before entering the EDIT command.

---

**GGCM015I** Data set is being viewed/edited by another session

**Explanation:** The selected Db2 data set is being viewed or edited by another Db2 Change Accumulation Tool user.

**User response:** Viewing or editing the data set is not possible until the other user exits the data set.

---

**GGCM016I** Logged page data has been applied

**Explanation:** The selected log data page has been written to the Db2 data set it originally came from.

**User response:** No action is required.

---

**GGCM017E** The logged page data apply has failed

**Explanation:** The logged page data cannot be applied. The space may have been deleted.

**User response:** Restore the deleted space or delete the logged page data.

---

**GGCM018E** The space must be STOPPED to apply logged pages

**Explanation:** Logged pages cannot be applied to a page without stopping the space.

**User response:** Issue the STOP DATABASE command to stop the space before applying the logged page.

---

**GGCM019E** The EDIT command is not available while the space is active

**Explanation:** You cannot use the EDIT command on a space that has not been stopped.

**User response:** Be sure to stop the space before entering the EDIT command.

---

**GGCM020E** User does not have authority to use the edit plan

**Explanation:** You do not have the proper authorization to use edit pages.

**User response:** Contact your Db2 Administrator to obtain the proper Db2 authorization.

---

**GGCM021E** User does not have authority to use the logging plan

**Explanation:** You do not have the proper authorization to use the logging facility.

**User response:** Contact your Db2 Administrator to obtain the proper Db2 authorization.

---

**GGCM022E** Requested data set not found

**Explanation:** Db2 Shared Profile Support cannot find the data set you entered on the Object Selection screen.

**User response:** Selection criteria are not allowed for data sets. Check the data set name.

---

**GGCM023E** Subsystem unavailable

**Explanation:** Db2 Shared Profile Support cannot connect to the specified subsystem. The call attach facility has failed.

**User response:** Confirm that the Db2 subsystem is active. Contact your systems administrator.

---

**GGCM024E** Mapid not found

**Explanation:** The requested map ID cannot be located. The map ID (pointer offset) most likely does not exist in the page.

**User response:** Enter the correct map ID.

---

**GGCM025E** This row is deleted

**Explanation:** The current map ID (pointer offset) has the high order bit turned on. This indicates that the row was deleted.

**User response:** Select another row to view or edit.

---

**GGCM026E** Mapid number must be numeric

**Explanation:** The map ID you entered is not numeric.

**User response:** Enter a numeric map ID.

---

**GGCM027E** Row navigation requires a data page

**Explanation:** Row navigation was specified, so Db2 Shared Profile Support moved to the next data page in the space.

**User response:** No action is required.

---

**GGCM028E** Page number must be hexadecimal

**Explanation:** A non-hexadecimal value was entered in the Hexadecimal field.

**User response:** Re-enter the page number in hexadecimal.
GGCM029E  XMapid must be hexadecimal
Explanation: A non-hexadecimal value was entered in the XMapid field.
User response: Re-enter the map ID in hexadecimal.

GGCM030E  Mapid/XMapid must be 1 or greater
Explanation: An invalid value was entered in the MapID or XMapid field.
User response: Re-enter the MapID or Xmapid value as hexadecimal.

GGCM031E  A Datapage can only be logged if TS STOPPED
Explanation: The LOGPAGE command was entered, but the table space was not stopped, so the page cannot be logged.
User response: Be sure to stop the space when selecting the data set for editing.

GGCM032I  Datapage has been successfully logged
Explanation: The data page has been successfully logged.
User response: No action is required.

GGCM033E  An error has occurred obtaining ZPARM RC=return_code
Explanation: An error has occurred attempting to access the Db2 ZPARM member.
User response: Ensure that the Db2 load library containing the assembled ZPARM member has also been specified during Setup. The Db2 load library name must be specified in one of the input fields (DB2 Loadlib1-5) on the Update Parameters for DB2 Subsystem SSID panel even if this load library is in the linklist.

GGCM034E  An original page image cannot be deleted, only removed
Explanation: An original data page cannot be deleted from the data set.
User response: Use the R line command to remove the image from the log.

GGCM035E  The entered value must be an integer.
Explanation: An invalid integer value was entered in this field.
User response: Enter a valid integer value.

GGCM036E  The range of a datatype of INTEGER is -2147483648 through 2147483647
Explanation: An integer value was entered that is outside the specified valid range.
User response: Enter a valid integer value.

GGCM037E  The range of a datatype of SMALLINT is -32768 through 32767
Explanation: A small integer value was entered that is outside the specified valid range.
User response: Enter a valid small integer value.

GGCM038E  This row no longer exists
Explanation: The FORMAT command was used for a row that does not exist. The row most likely has been deleted.
User response: Select another row for processing.

GGCM039E  Non-character data is not supported in character columns
Explanation: Currently, bit data is not supported in the format function, or this column is a variable datatype that is set to NULL.
User response: Select another row for processing.

GGCM040W  Variable fields will maintain their original length
Explanation: Variable length fields cannot have their length changed.
User response: No action is required.

GGCM041E  Only non-compressed rows may be formatted
Explanation: A row that is compressed or composed of non-EBCDIC characters was selected for formatting.
User response: This row cannot be edited.

GGCM042E  Formatting unavailable in data set mode
Explanation: You selected a data set on the Object Selection screen for processing, then used the FORMAT command.
User response: Row formatting is not available for data set processing as Db2 might not be available. To edit the row, select the object first, then drill down to the desired data set.
GGCM043E  Unsupported datatype encountered
Explanation: An unsupported datatype has been encountered.
User response: Verify the datatype is of a supported format.

GGCM044W  No profiles were found that match your selection criteria. Press enter to create a new profile or change the selection criteria.
Explanation: No profiles match your selection criteria.
User response: Press Enter to create a new profile, or change your selection criteria to get a different list.

GGCM045E  Command is not supported on this screen. Please enter a valid command or clear the primary command line.
Explanation: An invalid command was entered in the Option line.
User response: Correct the command or clear the Option line.

GGCM046E  You are not authorized to update or delete this profile. Enter a “V” if you would like to view this profile
Explanation: A profile was selected for update or deletion that was created with the View only option.
User response: Type V next to the profile to view the profile contents.

GGCM047E  The Profile Creator is a required field. Please enter a valid creator
Explanation: When creating a new profile, the Profile Creator field was left blank.
User response: Enter a profile creator in the Profile Creator field.

GGCM048E  The Profile Name is a required field. Please enter a unique name
Explanation: When creating a new profile, the Profile Name field was left blank.
User response: Enter a unique profile name in the Profile Name field.

GGCM049E  Invalid value. Enter a “U” to allow other users to Update your profile, a “V” to allow other users to just View your profile or “N” to disallow other users from viewing or updating your profile
Explanation: When creating a new profile, an invalid value was entered in the Update Option field.
User response: Correct the value as described in the message text.

GGCM050E  Profile “profile_creator,profile_name” already exists in DB2 SSID subsystem_ID. Please enter a unique profile name and press Enter
Explanation: When creating a new profile, a profile name was used that duplicates another profile name created by the same user ID.
User response: Enter a unique profile name and press Enter.

GGCM051E  Invalid Value - Please enter a “Y” if you would like to delete profile “profile_creator,profile_name” or an “N” if you do not want to delete it
Explanation: An invalid value was entered in the Delete field.
User response: Enter a valid value as described in the message text.

GGCM052I  Profile “profile_creator,profile_name” has been successfully deleted
Explanation: The profile named in the message text was successfully deleted.
User response: No action is required.

GGCM053I  Object already exists
Explanation: The selected object already has been included in the profile.
User response: No action is required.

GGCM054E  Invalid value. Please enter a “Y” if you would like to add objects profiles to this jobs profile or enter an “N” if you do not want to add objects profiles to this jobs profile
Explanation: An invalid value was entered in the Add Objects Profile field.
User response: Enter a valid value as described in the message text.

GGCM055E  Invalid value. Please enter a “Y” if you would like to add utilities profiles to this jobs profile or enter an “N” if you do not want to add utilities profiles to this jobs profile
Explanation: An invalid value was entered in the Add Utilities Profile field.
User response: Enter a valid value as described in the message text.

GGCM056E Invalid value. The only valid values are “Y” and “N”.

Explanation: An invalid value was entered in a field that only accepts Y or N.

User response: Enter a valid value as described in the message text.

GGCM057E Invalid value. The only valid values are “A”, “D”, “U”, or “V”

Explanation: An invalid value was entered.

User response: Enter a valid value as described in the message text.

GGCM058E Invalid value. Please enter a “Y” if you would like to add exception profiles to this jobs profile or enter an “N” if you do not want to add exception profiles to this jobs profile

Explanation: An invalid value was entered in the Add Exceptions Profile field.

User response: Enter a valid value as described in the message text.

GGCM059E Invalid value. Please indicate the order you would like to process the profile during job generation. This field must be numeric and unique from any other node of its type

Explanation: An invalid value was entered in the Order column.

User response: Enter a numeric value for the job step order in which the profile will be included.

GGCM060E Invalid line command entered

Explanation: An invalid value was entered in the line command area.

User response: Enter one of the valid line commands listed on the panel.

GGCM061E Object queue has been modified

Explanation: The object you selected has been included in or deleted from the object queue, depending on what you specified.

User response: No action is required.

GGCM062E The online options can only be modified when the "Online Reorg" setting is set to "Y".

Explanation: The online REORG options were selected to be updated but the online REORG has not been specified for inclusion in the profile.

User response: Type Y in the Include field next to the online REORG option, then type Y in the Update field for online REORG to update the options.

GGCM063E The valid values are "C"hange, "R"efence, and "N"one.

Explanation: An invalid value was entered in the Sharelevel field.

User response: Enter a valid value as described in the message text.

GGCM064E The options can not be altered if they are not first selected

Explanation: You specified to update utility options, but the utility has not yet been selected for inclusion in the profile.

User response: Type Y in the Include field next to the utility, then type Y in the Update field for the utility to update the options.

GGCM065E This field cannot be left blank

Explanation: A field has been left blank that must be completed.

User response: The cursor is positioned at the field that must be completed. Fill in the field and press Enter.

GGCM066E The valid values for MaxRO are "DEFER" or a number.

Explanation: An invalid value was entered for the MaxRO field.

User response: Enter a valid value as specified in the message text.

GGCM067E The valid values for Drain are "W"riters, "A"ll, or "N"one.

Explanation: An invalid value was entered for the Drain field.

User response: Enter a valid value as described in the message text.
**GGCM068E** The valid values for Long Log are "C"ontinue, "T"erm, and "D"rain.

**Explanation:** An invalid value was entered for the Long Log field.

**User response:** Enter a valid value as specified in the message text.

**GGCM069E** This field must contain a number.

**Explanation:** A non-numeric value was entered in a field that requires a number.

**User response:** Enter a valid numeric value.

**GGCM070E** The only valid values for timeout are "A"bend, "T"erm, or "N"o.

**Explanation:** An invalid value was entered in the Timeout field.

**User response:** Enter a valid value as specified in the message text.

**GGCM071E** Unknown command

**Explanation:** An invalid command was entered.

**User response:** Correct the command or clear the Option line.

**GGCM072E** Invalid value. Please enter an "S" to select a column, a "D" to deselect and delete exception data, an "R" to repeat an exception condition, an "A" to select a column as an "A"nd condition, or an "O" to select a column as an "O"r condition.

**Explanation:** An invalid line command was entered on the Update Exceptions Profile Display.

**User response:** Enter a valid value as specified in the message text.

**GGCM073E** Invalid condition. Valid values are "<" "LT" "<=" "LE" "=" "EQ" ">=" "GT" ">" "GE" "^=" "NE" "<>" "<>

**Explanation:** An invalid condition was entered for a column on the Update Exceptions Profile Display.

**User response:** Enter a valid value as specified in the message text.

**GGCM074E** Invalid value - Please enter an “O” to generate the job online via your ISPF session or “B” to build the job in batch

**Explanation:** An invalid value was entered in the Build Online or Batch field.

**GGCM075E** Invalid value. Please enter a “Y” if you would like to edit the generated JCL after the job has been built.

**Explanation:** An invalid value was entered in the Edit Generated Job field.

**User response:** Enter a valid value as specified in the message text.

**GGCM076E** Enter required field. A fully qualified data set name is required to save the generated JCL

**Explanation:** The data set name is missing from the Build Job in Data Set field.

**User response:** Enter a fully qualified data set name in the Build job in Data Set field to hold the generated JCL.

**GGCM077E** Data set not found. Data set data_set_name was not found in the MVS catalog. Please enter a valid data set that is cataloged.

**Explanation:** The data set name entered in the Build Job in Data Set field does not exist.

**User response:** Enter an existing cataloged data set name in the Build Job in Data Set field.

**GGCM078E** A problem was encountered in allocating the files necessary for ISPF file tailoring. Please try again.

**Explanation:** An error occurred when dynamically allocating the ISPF work files ISPFILE, ISPWRK1, or ISPWRK2.

**User response:** Retry the operation. Contact IBM Software Support if the problem persists.

**GGCM079W** Please enter a condition and an exception value. To deselect an item, enter a "D" in the "S" field.

**Explanation:** A table was selected on the Update Exceptions Profile Display, but you must also enter conditions and exceptions for the table.

**User response:** Enter a condition and exception value for the selected table. Consult the bottom of the screen for valid condition values. Scroll right to see information about exception values.
A condition or exception value was specified without the other. Both a condition and an exception value must be specified.

Explanation: You specified either a condition without an exception value or an exception value without a corresponding condition.

User response: Enter both a condition and an exception value for the selected column. Consult the bottom of the screen for valid condition values. Scroll right to see information about exception values.

A floating point number in the form of "3.17E+05" or "317000" must be entered.

Explanation: The exception value was entered incorrectly.

User response: Enter the exception value as a floating point decimal as described in the message text.

The only valid values for the deadline parameter are "N"one, "T"imestamp, and "L"abeled duration expression.

Explanation: An invalid value was entered for the Deadline parameter.

User response: Enter a valid value as specified in the message text.

If the Deadline value is "None", the timestamp and labeled duration fields must be blank.

Explanation: The Deadline field contains N for none. Timestamp and Labeled Duration Expression fields are invalid if no deadline is specified.

User response: Remove the values from the specified fields.

The valid values for the Unload field are "C"ontinue, "P"ause, "O"nly, and "E"xternal.

Explanation: An invalid value was entered in the Unload field.

User response: Enter a valid value as specified in the message text.

Option is currently unavailable

Explanation: The selected Shared Profile option is not currently available.

User response: No action is required.

The specified qualifier code is not a supported value

Explanation: An invalid qualifier code was entered for the image copy data set name.

User response: Change the qualifier code to one of the available codes listed on the screen.

Invalid hexadecimal value. Valid values are 0123456789ABCDEF.

Explanation: An invalid hexadecimal value was entered for the exception value.

User response: Enter a valid hexadecimal value using the hex characters listed in the message text.

Truncation has occurred in building the data set qualifier

Explanation: The data set name for the image copy is too long as constructed.

User response: Shorten the data set name by using less or shorter qualifiers.

The symbolic data set name generation field is full

Explanation: The symbolic input area is out of space. The maximum number of characters allowed is 159.

User response: Reduce the number or type of symbolics in the generated data set name.

Profile "profile_creator.profile_name" saved

Explanation: The profile named in the message was successfully saved.

User response: No action is required.

Invalid value. Please enter an "A" to AND conditions or an "O" to OR conditions together when doing exception processing.

Explanation: An invalid value was entered in the Conditions To Be field.

User response: Enter a valid value as specified in the message text.

Invalid value. Please enter an "R" to use statistics from the Shared Profile Support Repository, and "C" to use statistics from the DB2 Catalog, or an "S" to use statistics from a DB2 Shadow Catalog.

Explanation: An invalid value was entered in the Use Stats From field.
User response: Enter a valid value as specified in the message text.

GGCM093E Sharelevel has valid values of "R"eference, and "C"hange

Explanation: An invalid value was entered in the Sharelevel field.

User response: Enter a valid value as specified in the message text.

GGCM095I DEBUG command processed

Explanation: This message appears after issuing a DEBUG ON|OFF command. Some screens allow this command, but the DEBUG mode should only be used under the direction of IBM Software Support.

User response: No action is required.

GGCM097E Object profile contains no objects to view

Explanation: The object profile you selected to view does not contain any objects to view.

User response: Select a different profile for viewing.

GGCM098E The entered device type is not recognized by OS/390 as a valid device type

Explanation: An invalid device type was entered in the Unit Type field.

User response: Enter a valid device type or CART for tape devices.

GGCM099E When using disk type devices, expiration date and retention period are not valid

Explanation: A value was entered in the Expiration date or Retention period fields, when a disk type device was specified for the image copy. These fields are mutually exclusive.

User response: Clear the Expiration date and Retention period fields, or change the Unit Type field to CART.

GGCM104E Both components of an LDE modifier are required.

Explanation: You must specify both the value and a value modifier for the labeled duration expression.

User response: Enter the missing value or value modifier (+ or -).

GGCM133E The data set could not be allocated

Explanation: The dynamic allocation of the specified data set failed.

User response: Verify that the data set exists and is available for allocation.

GGCM134E The member name is not allowed on a non-partitioned data set

Explanation: A member name was included for the specified data set, but the data set is sequential, not a PDS.

User response: Remove the member name or use a PDS.

GGCM135E The data set_name (member_name) | data_set_name name selected for the generated job cannot be the same as the one used for the generation job (which was specified in the data set shown at the text at the beginning of this window).

Explanation: The same data set name, or the same member name in a partitioned data set, was specified for the batch job to generate the JCL as was specified for the generated JCL. These two cannot be the same.

User response: Change one of the data set names or member names.

GGCM136E Invalid date. Enter a valid date in the form of MM/DD/YYYY. Valid ranges are 01/01/1901 to 12/31/2041

Explanation: An invalid date was entered.

User response: Enter a valid date as specified in the message text.

GGCM137E Invalid time. Enter a valid time in the form of HH:MM:SS. Valid ranges are 00:00:00 to 23:59:59.

Explanation: An invalid time was entered.

User response: Enter a valid time as specified in the message text.

GGCM138E Invalid Date/Time. Enter a starting date/time combination that does not exceed the ending date and time

Explanation: The date and time entered in the From dates are later than the date and time entered in the To dates.

User response: Enter a valid starting date in the Date From and Time From fields.
GGCM143I Job job_name job_number has been successfully deleted

Explanation: The job listed in the message has been successfully deleted from the execution reports.

User response: No action is required.

GGCM144E This field can be blank or a number in the range of 1 to 100

Explanation: An invalid value was entered in the NUMCOLS or NUMQUANTILES field.

User response: Enter a valid value as specified in the message text.

GGCM147E This percentage field has a valid range of range

Explanation: An invalid value was entered in a percentage field.

User response: Enter a valid value as specified in the message text.

GGCM152I Import/export successful

Explanation: The import or export of the selected profile was successful.

User response: No action is required.

GGCM155W Export successful, but since the DB2 version is different than the source version, some exceptions may be missing

Explanation: The exceptions profile was successfully exported to a Db2 subsystem that is a different version than the source. Because some exceptions are Db2 version dependent, they may not appear in the exported profile.

User response: When imported, check the exception profile carefully to ensure the desired results.

GGCM157E Profile “profile_creator.profile_name” already exists in DB2 SSID subsystem_ID. Please enter a “Y” to replace the existing profile

Explanation: The profile you selected for export already exists on the selected subsystem.

User response: Type Y to replace the profile, or type N to cancel the export.

GGCM158E profile_type Profile “profile_creator.profile_name” does not exist. The profile was deleted after the jobs profile was created. Either delete the profile_type profile from the jobs profile or recreate it

Explanation: The profile you selected to view or update from the Update Jobs Profile screen has been deleted since the selected job profile was created.

User response: Either recreate the object, utility, or exceptions profile, or delete the named profile from the job profile.

GGCM159E Data set must have a LRECL of 4096

Explanation: The data set that you are exporting the profile to must have been defined with an LRECL of 4096.

User response: Either recreate the data set with the proper LRECL, or delete it and allow Db2 Change Accumulation Tool to create it for you by typing Y in the Create Export Data Set field.

GGCM160E JOBS Profile profile_creator.profile_name does not exist on DB2 SSID ssid. Execution terminated

Explanation: The job profile you are trying to build has been renamed or deleted.

User response: Check for the presence of the profile. Recreate or rename the profile if necessary.

GGCM165E Enter required field. A fully qualified data set name is required.

Explanation: A fully qualified data set name was not specified in the Output DSN field.

User response: Enter a fully qualified data set name in the Output DSN field.

GGCM169W No objects were triggered for exception processing

Explanation: When building a job online, none of the objects in the specified object profile met the exception processing criteria. Therefore, no job is built.

User response: If you feel this message was received in error, examine the profiles to ensure accuracy.

GGCM172E The import file does not contain an object profile

Explanation: The source data set you are importing from does not contain an object profile.

User response: Check the data set name from which you are importing. Check the contents of the data set.
Before importing, re-export the desired object profile if necessary.

**GGCM174E** The import file does not contain a utility profile

**Explanation:** The source data set you are importing from does not contain a utility profile.

**User response:** Check the data set name from which you are importing. Check the contents of the data set. Before importing, re-export the desired utility profile if necessary.

**GGCM175E** The import file does not contain an exception profile

**Explanation:** The source data set you are importing from does not contain an exception profile.

**User response:** Check the data set name from which you are importing. Check the contents of the data set. Before importing, re-export the desired exception profile if necessary.

**GGCM176E** Invalid GDG limit parameter - Valid values are 1 - 255. Please enter a zero if you do not want to automatically define a GDG base or a valid value from 1 to 255 of the nbr of generations you would like to keep

**Explanation:** An invalid value was entered for the Automatically Gen GDG Base field.

**User response:** Enter a valid value as specified in the message text.

**GGCM177E** Invalid Nbr of Jobs Parameter - Please enter a valid nbr between 0 and 999 of the nbr of jobs you would like Shared Profile Support to generate for this profile

**Explanation:** An invalid value was entered for the Maximum nbr of jobs field.

**User response:** Enter a valid value as specified in the message text.

**GGCM178E** Invalid Nbr of Objects per Job. Please enter a valid nbr between 0 and 9999 of the maximum nbr of objects you would like in each job. Enter 9999 if you want all objects included in a single job

**Explanation:** An invalid value was entered for the Maximum nbr of objects per job field.

**User response:** Enter a valid value as described in the message text.

**GGCM179E** Invalid Load Balance Jobs parameter. Please enter a “T” if you would like to balance multiple jobs by previous run times, a “D” if you would like to balance by DASD tracks or “N” for no load balancing necessary

**Explanation:** An invalid value was entered for the Load Balance jobs by field.

**User response:** Enter a valid value as specified in the message text.

**GGCM180E** Invalid Capture Run Times parameter. Please enter a “Y” if you would like to capture runtime statistics. These run times will be used for future load balancing by time

**Explanation:** An invalid value was entered for the Capture run times for Load Balancing field.

**User response:** Enter a valid value as specified in the message text.

**GGCM181E** Invalid Utility Mode parameter. Please enter a “Y” if you would like the spaces started in UT mode before running utilities or “N” to leave the spaces in the status they are currently in

**Explanation:** An invalid value was entered for the Process spaces in utility (UT) mode field.

**User response:** Enter a valid value as specified in the message text.

**GGCM184E** Member does not exist in the partitioned data set

**Explanation:** A partitioned data set and member name were specified, but the member does not exist.

**User response:** Correct the member name.

**GGCM185E** Data set could not be created, because it already exists

**Explanation:** A data set name was specified for creation, but the data set already exists.

**User response:** Choose a different data set name, or use the existing data set but enter N in the Create Export Data Set field.
You are not authorized to enter any line commands for this profile. The creator of the profile is restricting all activity.

**Explanation:** The creator of the selected profile specified that no other user is to view, update, or export the selected profile.

**User response:** Choose a different profile to work with.

Profile "profile_creator.profile_name" has been successfully deleted (removed) from the jobs profile.

**Explanation:** The selected object, utility, or exception profile was deleted from the job profile.

**User response:** No action is required.

The underlying VSAM data set not found for table space.

**Explanation:** The data set for the selected table space was not found.

**User response:** Check for the existence of the VSAM data set. It may have been deleted outside of Db2.

Member name not allowed when Jobs option Set Member to Jobname has been turned on.

**Explanation:** On the Generation Job Options screen, the Set JCL member equal to jobname field was set to Y.

**User response:** Do not specify a member name in the Build Job in Data Set member field. The member name is generated from the job name.

Invalid value - Please enter a “T” to override character with object type, “O” to override with the object name, “#” to increment with numerics, “” to increment with alphanumerics, "P" to override with partition number, or "D" to override with the database name

**Explanation:** An invalid value was entered in the job template override byte.

**User response:** Enter a valid value as specified in the message text.

Invalid value - Enter a “Y” to generate the job when errors are encountered in building the job, an “N” to bypass job generation when errors, or “W” to allow job generation when warnings are found

**Explanation:** An invalid value was entered for the Generate Job when Errors encountered field.

**User response:** Enter a valid value as specified in the message text.

Input required. When requesting space reallocation, one of the two available trigger fields (extents in space or percentage used) must be entered.

**Explanation:** You must specify one of the two available trigger fields (extents in space or percentage used).

**User response:** Specify extents in space or percentage used.

There are unentered fields on the Space Reallocation screen that are required for processing. Because of this, the Space reallocation option on the main options screen has been set to "N".
You must fill in the empty fields or the space reallocation option is automatically set to N.

**User response:** Specify all required fields or leave the space reallocation option set to N.

**Explanation:**

All of the Image Copy Options (for the LP, LB, RP, and RB image copies) have been set to "N"o. Because of this, the Copy Options field on the Reorg options screen has been set to a "N".

**User response:**

Set at least one of the image copy options (for LP, LB, RP, or RB image copies) to Y if you want to specify Y in the copy options field on the Reorg options screen.

**Explanation:**

An image copy was specified to be included in the profile, but the image copy type has not been selected. The Image Copy option Include field was set to a "N".

**User response:**

If you want to include an image copy in the profile, select one or more image copy types and set their associated options on the Image Copy Options screen.

**Explanation:**

Orphaned utility profile

profile_creator.profile_name is not valid in this job profile. Build terminated.

**User response:**

Update the job group and add an exception profile that is associated with this utility profile, and rebuild the job profile.

**Explanation:**

The device name device_name has been successfully added to the device table as a device_type device.

**User response:**

No action is required.

**Explanation:**

The utility profile that is listed in the message has no objects to act upon. The utility profile must be associated with objects that were either accepted or rejected using an exception profile.

**User response:**

Access the Jobs Profile Display and import the jobs profile from the data set.

**Explanation:**

The profile you are attempting to import from a data set is a job profile. You can only import a job profile from the Jobs Profile Display.

**User response:**

Enter Y in the Create Export Data Set field to create a new data set, or specify an existing data set.

**Explanation:**

When exporting a profile to a data set, the Create Export Data Set field was set to N, but the data set specified in the Data Set Name field does not exist.

**User response:**

Enter Y in the Create Export Data Set field to create a new data set, or specify an existing data set.

**Explanation:**

The export data set contains a jobs profile. An exported jobs profile cannot be imported into a non-jobs profile

**User response:**

Access the Jobs Profile Display and import the jobs profile from the data set.
GGCM232E Objects profile profile_creator,profile_name has been previously selected in this jobs profile, but has since been deleted from this subsystem. Job Build Process has been terminated

Explanation: The listed object profile has been deleted from the subsystem, so the job cannot be built.

User response: Follow the instructions in the message text to delete and/or recreate the object profile.

GGCM233E Utility Profile profile_creator,profile_name has been previously selected in this jobs profile, but has since been deleted from this subsystem. Job Build Process has been terminated

Explanation: The listed utility profile has been deleted from the subsystem, so the job cannot be built.

User response: Follow the instructions in the message text to delete and/or recreate the utility profile.

GGCM234E Exceptions Profile profile_creator,profile_name has been previously selected in this jobs profile, but has since been deleted from this subsystem. Job Build Process has been terminated

Explanation: The listed exception profile has been deleted from the subsystem, so the job cannot be built.

User response: Follow the instructions in the message text to delete and/or recreate the exception profile.

GGCM236E Only (A)LL or (P)art are valid explode options

Explanation: An invalid value was entered in the Explode field.

User response: Enter A to run utilities against all partitions. Enter P to run utilities against each partition individually.

GGCM237I Profile profile_creator,profile_name has been successfully added to your jobs profile

Explanation: The selected object, utility, or exception profile has been added to the job profile.

User response: No action is required.

GGCM238E You are not authorized to update, view, or use profile profile_creator,profile_name

Explanation: The profile you selected was created with limited access. If you are not the profile creator, you may not view, update, or use this profile.

User response: If you are the profile creator, you can change the Share option by updating the profile.

GGCM240E Invalid value - Enter a “Y” to view the messages from building this profile or “N” to bypass viewing the messages

Explanation: An invalid value was entered when viewing the messages summary window for the job build.

User response: Enter a valid value as specified in the message text.

GGCM241E Invalid value - Enter a “Y” to continue building the job or “N” to exit the building of this profile

Explanation: An invalid value was entered when viewing the Continue Building jobname window for the job build.

User response: Enter a valid value as specified in the message text.

GGCM242I Building of jobs profile profile_creator,profile_name has been canceled

Explanation: The job build has been canceled.

User response: No action is required.

GGCM243I Editing of directory spaces not supported

Explanation: An edit command was entered for a Db2 directory table space. This command is not supported for these spaces.

User response: No action is required.

GGCM245E An error was encountered attempting to execute GGCSTSOC

Explanation: An error occurred while executing the listed program.

User response: Ensure that the CLIST installation instructions and the GGCSTSOC authorization instructions for SYS1.PARMLIB were followed. Contact IBM Software Support if necessary.

GGCM246E Load library not APF authorized - APF authorization required

Explanation: The GGCMhilv1.SGGCMLOAD library must be APF authorized.

User response: This message is issued if you have not APF authorized the GGCM load library. This message is also issued if the GGCSTSOC program is not added to the AUTHPGM and AUTHTSF sections of member
IKJTSO00 in SYS1.PARMLIB. Refer to [https://www.ibm.com/support/knowledgecenter/en/SSLTBW to access the z/OS MVS Initialization and Tuning Reference for your version of z/OS.]

**Note:** Changes you make to SYS1.PARMLIB require an IPL for the PARMLIB updates to take effect.

---

### GGCM247E  Subsystem ID could not be found in the operating system

**Explanation:** A symbolic data set name calls for the subsystem ID, but the subsystem ID could not be found to resolve the data set name.

**User response:** Contact IBM Software Support.

---

### GGCM248E  A critical error has occurred attempting to resolve the subsystem

**Explanation:** A symbolic data set name calls for the subsystem ID, but the subsystem ID could not be found to resolve the data set name.

**User response:** Contact IBM Software Support.

---

### GGCM249E  Invalid data set node detected length greater than 8 characters

**Explanation:** The substring entered caused a data set node to be greater than eight characters.

**User response:** Shorten the substring to less than eight characters.

---

### GGCM250E  Invalid data set node detected - first character not alphabetic or national

**Explanation:** The first character of the entered substring resolved to an invalid character. Data set nodes must begin with alphabetic or national characters.

**User response:** Change the starting character to a valid character.

---

### GGCM251E  Invalid data set node detected - 2 consecutive periods

**Explanation:** The qualifier string contains two consecutive periods as resolved. Data set names cannot contain two consecutive periods.

**User response:** Change the qualifier string so that two periods do not appear consecutively.

---

### GGCM252E  Data set truncation may occur

**Explanation:** When resolved, the data set name may be too long. The maximum number of characters allowed for data set names is 44.

**User response:** Shorten the data set name so it resolves to less than 44 characters.

---

### GGCM253E  Invalid characters detected in data set node

**Explanation:** An invalid character was entered into a data set node. The first character must be alphabetic or national and the remaining seven characters must be alphabetic, numeric, national, or a hyphen.

**User response:** Correct the data set name.

---

### GGCM254E  Invalid ending period detected

**Explanation:** The data set name as resolved contains a period as the last character, which is invalid.

**User response:** Correct the data set name.

---

### GGCM255E  Invalid data set node detected after a GDG

**Explanation:** If used, the GDG substring must be the last node in the symbolic data set name.

**User response:** Ensure the GDG is the last node in the data set name.

---

### GGCM256E  Invalid value. Enter a "Y" to set the options for utilities to generate Templates, Listdefs or Option keywords or "N" to bypass updating utility options

**Explanation:** An invalid value was entered in the Update Template/Listdef/Option parms field.

**User response:** Enter a valid value as described in the message text.

---

### GGCM257E  Duplicate Entry. Change the Object Database, Object Name, or Object Type fields

**Explanation:** Duplicate object prioritization entries are not allowed.

**User response:** Enter a unique value in the Object Database, Object Name, or Object Type fields.

---

### GGCM258E  Invalid member name. Only A-Z, 0-9, @, #, and $ are valid; First character must be A-Z, @, #, or $

**Explanation:** An invalid partitioned data set member name was entered.

**User response:** Enter a valid member name as specified in the message text.
If the utility work data set high level is not filled in, your utilities requiring work data sets will be built with temporary data sets. Using temp work data sets in utilities will eliminate the utility from being restarted.

**Explanation:**
The utility work data set high level qualifier field was left blank, so temporary data sets will be used for work data sets. Utilities cannot be restarted if temporary data sets are used for work data sets.

**User response:** If you want to restart utilities in the event of job failure, enter a work data set high level qualifier.

---

Jobs Profile profile_creator.profile_name on DB2 SSID ssid is empty and does not contain any exception, object, or utility profiles.

**Explanation:**
An attempt was made to build a job profile that is empty.

**User response:** Cancel the job build. Update the profile to add the appropriate object, utility, and/or exception profiles.

---

Invalid starting position entered. Enter a numeric value for the starting position in the symbolic to substring.

**Explanation:**
An invalid value was entered in the Enter Starting Position field.

**User response:** Enter a valid numeric as specified in the message text.

---

Invalid substring length entered. Enter a numeric value greater than 1 to substring the symbolic.

**Explanation:**
An invalid value was entered in the Enter Substring Length field.

**User response:** Enter a valid numeric as specified in the message text.

---

Invalid substring starting position entered. Enter a starting position that is within the range of generated symbolic.

**Explanation:**
An invalid value was entered for the starting position of the substring.

**User response:** Enter a valid numeric as specified in the message text.

---

Invalid substring length. Length exceeds end of data. Enter a length where the starting position plus length are less than or equal to the maximum length of data.

**Explanation:**
An invalid length was entered for the selected qualifier in the substring. The length is longer than the longest possible value for the substring.

**User response:** Enter a valid length as specified in the message text.

---

Varchar column has a length of zero and cannot be viewed.

**Explanation:**
A VARCHAR column was selected for editing, but the column length is 0. There is no data to view.

**User response:** Select a different column for editing.

---

Varchar column has a length of zero and cannot be viewed.

**Explanation:**
While processing the UPDATE FIRST VOLUME request, some stogroup defined target data sets were located with target stogroups that are SMS managed. First volume update processing was bypassed for all applicable data sets.

**User response:** Do not specify volume information for stogroup defined data sets when the stogroup is SMS managed.

---

Unable to display another product's utility profile.

**Explanation:**
You attempted to view or update a utility profile that was created in a Db2 Tool other than the product you are using. This is not allowed.

**User response:** No action is required.

---

No table spaces found on volume.

**Explanation:**
No Db2 table spaces reside on the selected volume.

**User response:** Select another volume to view.

---

Invalid value - The only valid values are “A”, “T”, or “I”.

**Explanation:**
For a volume object selection, you can specify to process all objects, table spaces only, or index spaces only.

**User response:** Enter a valid value as listed in the message text.
Invalid value - Enter a “J” if you would like to prefix the utility ID with the jobname, an “S” if you would like to prefix the utility ID with the stepname, a “B” if you would like to prefix the utility ID with jobname.stepname or “N” for no prefix

Explanation: An invalid value was entered in the Prefix Utility ID with jobname field.
User response: Enter a valid value as listed in the message text.

Required field - Please enter a profile creator

Explanation: When renaming a profile, the new profile creator was not specified.
User response: Enter the new profile creator in the Creator field.

Required field - Please enter a profile name

Explanation: When renaming a profile, the new profile name was not specified.
User response: Enter the new profile name in the Profile Name field.

Duplicate profile - Please change the profile creator or profile name to make it unique

Explanation: When renaming the profile, the combination of profile name and profile creator entered is identical to another profile.
User response: Enter a different profile creator or name to make the profile unique.

Profile was successfully renamed

Explanation: The profile has been successfully renamed.
User response: No action is required.

New profile already exists for profile type profile_type. Please enter a unique profile name and press Enter

Explanation: When renaming the profile, the combination of profile name and profile creator entered is identical to another profile.
User response: Enter a different profile creator or name to make the profile unique.

Invalid value - Enter an “A” to have all exception profiles processed as ONE big exception profile, i.e., all exception conditions are merged together into one unit, or an “O” to have multiple exception profiles processed one at a time, i.e., on an individual basis. Press Help for more information

Explanation: The Evaluate Multiple Exception Profiles field contains an invalid value. When there is more than one exception profile in a jobs profile, the exception profiles can be evaluated and processed differently based on this value.
User response: Enter a valid value as specified in the message text. Press PF1 for an explanation of the evaluation process.

Invalid value - Enter a “D” to delete job data, “S” to select step data, or “O” to select object data

Explanation: An invalid line command was entered next to a job name on the Execution Reports Job Display.
User response: Enter a valid value as specified in the message text.

Invalid value - Enter a “J” to display job level data or “O” to display object level data

Explanation: An invalid value was entered in the View Type field.
User response: Enter a valid value as specified in the message text.

Invalid value - Enter a “S” to display job related data for the selected object

Explanation: An invalid line command was entered next to an object on the Execution Reports Object Display.
User response: Enter a valid value as specified in the message text.

Invalid value - Enter a “I” to limit the display to indices, “T” to limit displays to table spaces or “A” for no filtering of object data

Explanation: An invalid value was entered in the Space Type field.
User response: Enter a valid value as specified in the message text.
GGCM294E  Invalid value - Enter a “Y” to recall migrated spaces
Explanation: An invalid value was entered in the Recall Migrated Spaces field.
User response: Enter a valid value as specified in the message text.

GGCM295E  Invalid value - Enter an “R” if you would like to Restart job or an “F” if you would like to Force this job completed and regenerate another job
Explanation: An invalid value was entered in the Restart or Force Completion field.
User response: Enter a valid value as listed in the message text.

GGCM296E  Invalid value - Enter a “Y” if you would like DB2 Shared Profile Support to submit the new job or “N” to bypass job submission
Explanation: An invalid value was entered in the Submit Job field.
User response: Enter a valid value as described in the message text.

GGCM297E  Invalid member name - You must specify a different member name when restarting the job in the same data set
Explanation: When restarting a job, you cannot use the same data set and member name that was used for the original JCL.
User response: Specify a different member name, or use a different data set to generate the JCL.

GGCM298E  Utility profile profile_creator:profile_name is included in this jobs profile but no longer exists. The job cannot be built. Update the jobs profile to either delete the utility profile from the jobs profile or create the utility profile
Explanation: The listed utility profile has been deleted from the subsystem, so the job cannot be built.
User response: Follow the instructions in the message text to delete and/or recreate the utility profile.

GGCM299I  Job jobname, job_number was successfully forced complete
Explanation: The job listed in the message was successfully forced to completion.
User response: No action is required.

GGCM300E  Option not allowed - The only valid option is “V” for View while you are in View mode
Explanation: An invalid line command was entered next to a profile. When viewing job profiles, you can only view the associated object, utility, and exception profiles.
User response: Enter V to view the object, utility, or exception profile.

GGCM301E  Invalid value - Enter a “Y” to terminate the existing DB2 utility ID or “N” to have the utility restarted where it left off
Explanation: An invalid value was entered in the Terminate existing utility ID field.
User response: Enter a valid value as described in the message text. If you are attempting to restart a utility, terminating the utility ID will not allow the utility to restart. Refer to [https://www.ibm.com/support/knowledgecenter/en/SSEPEK](https://www.ibm.com/support/knowledgecenter/en/SSEPEK) for information about the messages and codes for your version of Db2.

GGCM302E  Allocation failed - Dynamic allocation failed for the input build data set during restart processing
Explanation: The data set containing the JCL for restart processing could not be allocated.
User response: Ensure the data set exists and is available for use.

GGCM303E  Allocation failed - Dynamic allocation failed for the output build data set during restart processing
Explanation: The data set specified to contain the output JCL for restart processing could not be allocated.
User response: Ensure the data set exists and is available for use.

GGCM304E  Return code return_code reason code reason_code received from the DB2 command processor attempting to terminate the utility
Explanation: An error was encountered when attempting to terminate a utility. The return and reason codes are provided in the message.
GGCM305E An excluded object cannot be exploded

Explanation: You entered the explode line command next to an object or objects that are being excluded from the profile. Excluded objects cannot be exploded.

User response: To continue, clear the line command from the excluded object.

GGCM306E Object already excluded

Explanation: The object you selected to exclude from the object list has already been excluded.

User response: To continue, clear the line command from the excluded object.

GGCM307E No objects meet wildcard criteria

Explanation: You entered the explode line command next to an object detail line that contains wildcard selection criteria. However, no objects exist on the Db2 subsystem that meet the wildcard criteria. The object or objects may have been dropped.

User response: Press Enter to continue.

GGCM308E No indexes found on volume

Explanation: There are no indexes on the selected volume.

User response: Enter a valid line command or select a different volume.

GGCM309E Non hexadecimal value entered. All page changes discarded

Explanation: Invalid data was entered on the selected page. That change and all page changes have been discarded.

User response: Enter page changes in hexadecimal.

GGCM310E Invalid Value - Please enter the Maximum Primary Space Allocation quantity that you want Shared Profile Support Services to generate when generating utility JCL. This value must be numeric and be > 0 and <= 999999

Explanation: An invalid value was entered for the Max Primary Space Allocation field on the Setup panel or the Override Setup options panel.

User response: Enter a valid value as described in the message text.

GGCM311E Invalid Value - Please enter either (C)ylinders, (T)racks, or (M)egabytes. This value represents the unit type of the maximum primary space, i.e., how many cylinders, tracks, or megabytes that you want Shared Profile Support Services to generate when generating utility JCL

Explanation: An invalid unit was entered for the maximum primary space allocation.

User response: Enter one of the valid units listed in the message text.

GGCM312E Invalid Value - Please enter the REGION Size in megabytes that you want Shared Profile Support Services to generate when generating utility JCL. This value must be numeric and be >= 0 and <= 2047

Explanation: An invalid value was entered when specifying utility region size.

User response: Enter one of the valid values listed in the message text.

GGCM313E Invalid Value - Please enter the number of subtasks, i.e., parallel processes, that you want Shared Profile Support Services to create when performing MVS catalog LOCATEs. This value must be numeric and be > 0 and <= 99

Explanation: An invalid value was entered when specifying the number of subtasks that can be initiated when performing parallel MVS catalog locates.

User response: Enter one of the valid values listed in the message text.

GGCM314E Invalid Value - Please enter either (Y)es or (N)o. This value indicates whether you want Shared Profile Support Services to generate termination JCL for utilities if an abend occurs

Explanation: An invalid value was entered when specifying whether Shared Profile Support will terminate a utility upon abend.

User response: Enter one of the valid values listed in the message text.

GGCM315E Invalid Value - Please enter the unit device (SYSDA, DISK, etc.) that you want Shared Profile Support Services to generate when generating SORT WORK file DDs

Explanation: An invalid value was entered when specifying the device for sort work files.
User response: Enter one of the valid values listed in the message text.

GGCM316E  Invalid Value - Please enter the primary space allocation quantity in cylinders that you want Shared Profile Support Services to generate when generating SOR WORK JCL. This value must be > 0 and <= 99999

Explanation: An invalid value was entered for the amount of primary space allocation for sort work JCL.

User response: Enter one of the valid values listed in the message text.

GGCM317E  Invalid Value - Please enter the secondary space allocation quantity in cylinders that you want Shared Profile Support Services to generate when generating SOR WORK JCL. This value must be numeric and be > 0 and <= 99999

Explanation: An invalid value was entered when specifying the amount of secondary space allocation for sort work JCL.

User response: Enter one of the valid values listed in the message text.

GGCM318E  Invalid Value - Please enter the number of DDs that you want Shared Profile Support Services to generate when generating SOR WORK JCL. This value must be numeric and be > 0 and <= 99

Explanation: An invalid value was entered for the number of DDs to be generated for sort work JCL.

User response: Enter a valid value as listed in the message text.

GGCM319E  At least one of the Shared Profile Support Services Setup Parameters is missing or invalid for DB2 Subsystem [subsystem]. Please review and update the Setup Parameters on the Option 3 Setup panel. Enter an "S" in the Option field of the Main panel, then "3" in the Command field of the following panel. Specify the appropriate value(s)

Explanation: This message appears when attempting to use Db2 Change Accumulation Tool on a subsystem, but the Db2 Shared Profile Support setup parameters for this subsystem have not yet been configured.

User response: Access the setup panel as described in the message text. Enter the subsystem ID to configure on the first screen, then choose option 3 to complete configuration.

GGCM320E  Invalid Update Setup Override Options parameter. Please enter a "Y" if you would like to update the setup parameters for this job or an "N" to bypass updating the setup parameters for this job

Explanation: An invalid value was entered in the Update Setup Override Options field.

User response: Enter a valid value as listed in the message text.

GGCM321E  Invalid Value - Please enter the Unit Device (SYSDA, DISK, etc.) that you want Shared Profile Support Services to generate when generating utility JCL

Explanation: A value was not entered for the work file unit devices.

User response: Specify a valid unit device that Db2 Shared Profile Support can use when generating utility JCL.

GGCM322E  Invalid Value - Please enter the DB2 subsystem ID that you want Shared Profile Support Services to use when capturing job runtime statistics

Explanation: An invalid job tracking subsystem ID was specified on the Override Setup Options screen.

User response: Enter a valid job tracking subsystem name.

GGCM323E  Input member not found. The input build member is missing for the restart job

Explanation: The output from the job profile you want to build previously ended in an abend. Re-startability was enabled, but the input member required for re-startability does not exist or has been deleted. Therefore, the job cannot be restarted.

User response: Check for the existence of the data set and/or member where the job profile was last built. Contact IBM Software Support if assistance is required.

GGCM326E  Invalid Value - Please enter either (Y)es or (N)o. This value indicates whether you want Shared Profile Support Services to generate STEPLIB DDs when generating utility JCL

Explanation: An invalid value was entered when specifying whether to generate STEPLIB DDs in the utility JCL.

User response: Enter a valid value as specified in the message text. Note that if you specify N, the Db2 Change Accumulation Tool and Db2 Shared Profile
Support libraries must be in your site's LINKLST data set.

**GGCM327E** Invalid Value - Please enter either (Y)es or (N)o. This value indicates whether you want Shared Profile Support Services to generate Greenwich Mean Time (GMT) values rather than local time when generating utility JCL.

**Explanation:** An invalid value was entered when specifying whether to use GMT (Greenwich Mean Time) time format when generating image copy data set names.

**User response:** Enter a valid value as listed in the message text.

**GGCM328E** Quotations are not accepted in the data set field. Please specify the fully qualified data set name without quotations.

**Explanation:** An invalid value was entered when specifying the data set name. Quotations are not permitted in the data set name field.

**User response:** Enter a fully qualified data set name without quotations.

**GGCM329E** Field Required - The data set entered is a partitioned data set and the member name is required.

**Explanation:** An invalid value was entered when specifying the data set and member name. The specified data set is a PDS and the existing member name is required.

**User response:** Enter the member name in the member field. The member name must already exist.

**GGCM330E** Parm not allowed. A secondary quantity can not be entered without a primary quantity.

**Explanation:** You entered a secondary quantity without entering a primary quantity.

**User response:** Enter a primary quantity to set or override, then specify the secondary quantity.

**GGCM331E** UNICODE/ASCII formatting not supported prior to DB2 V8.

**Explanation:** Db2 Shared Profile Support only displays Unicode and ASCII characters on Db2 V8 or higher subsystems.

**User response:** No action is required.
GGCM337E  Invalid Value - Enter a "Y" if you would like the utility return code to zero when warnings are encountered or "N" to leave the return code to a 4 when warnings are encountered

Explanation:  An invalid value was specified when entering the Return Code 0 on Warnings field.

User response:  Enter a valid value as listed in the message text.

GGCM338E  Option not Allowed - Utilities that Image Copy spaces require TEMPLDEFs be used when generating LISTDEFS. Enter a "Y" for TEMPLDEFs in order to generate LISTDEFS

Explanation:  You specified a Y in the Generate Listdefs field, but did not specify Y in the Generate Templates field.

User response:  If you want to use LISTDEFS, you must specify Y in the Generate Templates field. Otherwise, set the Generate Listdefs field to N.

GGCM339E  Table space creator.tablespace is not in a read/write status. Db2 Change Accumulation Tool cannot continue until this invalid status is resolved. Please resolve the problem with this space and try your request again

Explanation:  The table space listed in the message cannot be accessed because it is not in read/write status.

User response:  Attempt to resolve the status of the space and retry the request.

GGCM340E  The entire database database is not in a read/write status. Db2 Change Accumulation Tool can not continue until this invalid status is resolved. Please resolve the invalid status and try your request again

Explanation:  The Db2 Shared Profile Support GGCM database is not available because it is not in read/write status. Availability of the GGCM database is required for processing to continue.

User response:  Attempt to resolve the status of the space and retry the request.

GGCM337E  Invalid Value - Enter a "Y" to Use the DSNACCOR EXCEPT_TBL when generating JCL for selected objects or "N" to not use the DSNACCOR EXCEPT_TBL

Explanation:  An invalid value was specified in the Use DSNACCOR Exception Table field.

User response:  Enter a valid value as listed in the message text.

GGCM342E  An invalid Return code of return_code Reason reason_code was encountered issuing -DISPLAY DATABASE(database_name) command to verify Shared Profile Services repository spaces are available

Explanation:  An error was encountered when attempting to verify the availability of the Db2 Shared Profile Support database.

User response:  Examine the return and reason codes provided in the message and attempt to correct the error. Contact IBM Software Support if assistance is required.

GGCM343E  User is not authorized to issue -DISPLAY DATABASE(database_name) to verify Shared Profile Services repository spaces are available

Explanation:  Your authorization ID has not been granted privileges to issue the DISPLAY DATABASE command for the listed database.

User response:  Check with your Db2 administration programmer to verify or obtain proper authority.

GGCM344E  Graphic data is currently not supported

Explanation:  The FORMAT command was entered, but the page contains graphic data. Graphic data cannot be displayed with the FORMAT command.

User response:  No action is required.

GGCM345W  User is not authorized to overwrite existing profile. You must change the profile creator or name

Explanation:  A profile already exists on this subsystem with a Share Option of V(iew). This profile cannot be overwritten.

User response:  Change the profile creator or the profile name to create a new copy of the profile.
Input data set is not a valid export data set

**Explanation:** The data set you entered is not a valid export data set.

**User response:** Enter a valid export data set name that contains the profiles you want to import.

Profile could not be imported. You may Edit or Overwrite the profile or PF3 to cancel

**Explanation:** A duplicate profile exists on the subsystem. You must specify to edit the profile creator and/or name, or overwrite the existing profile with the imported profile.

**User response:** Enter the "O" or "E" line commands as appropriate.

Overwrite command is only valid for duplicate profiles. Command ignored

**Explanation:** You entered the O line command next to a profile that is not a duplicate profile. Only duplicate profiles can be overwritten.

**User response:** Clear the line command.

Unable to export profile(s). Press PF3 to cancel

**Explanation:** There was a severe error trying to export one or more of the profiles.

**User response:** Contact IBM Software Support.

Command not allowed. Profile was not exported

**Explanation:** When exporting a job profile, there was a problem exporting one of the object, utility, or exception profiles contained in the job profile. During import, a line command was entered next to one of these profiles, but the profile cannot be imported.

**User response:** Clear the line command from the profile.

Invalid data set/member/alias - the data set, member name, or Alias entered does not meet the MVS data set naming standards

**Explanation:** The data set, member name, or alias entered is not valid for MVS data set names. The first character must be capitalized alphabetic (A-Z,@,$,#) and the remaining characters must be capitalized alphanumeric (A-Z,0-9,@,$,#).

**User response:** Correct the data set, member name, or alias.

Only 1 data set may be selected

**Explanation:** You selected multiple image copy data sets on the Recovery File Selection screen. However, you can only select one image copy data set at a time for recovery.

**User response:** Select only one image copy data set for recovery.

Invalid data set DSORG - The file containing the jobcards must be a sequential file or a PDS/PDSE. VSAM and other data types are not supported for jobcard retrieval

**Explanation:** The data set organization of the file you entered is not supported for jobcard retrieval. The data set must be a QSAM sequential or partitioned data set.

**User response:** If you want to retrieve the job card from a data set, use the specified data set type.

The page number must be decimal digits or hex digits enclosed in single quotation marks

**Explanation:** The page number must be a 1 to 8 digit base 10 number or a 1 to 5 digit base 16 number enclosed in a hexadecimal indicator (X'89ABC').

**User response:** Correct the page number and press Enter.

File tailoring skeleton member_name does not exist for utility utility

**Explanation:** An attempt to perform file tailoring failed because the tailoring process could not locate a required tailoring skeleton.

**User response:** Assure that all required files are allocated to perform file tailoring.

Unexpected error returned from program_name, RC=return_code

**Explanation:** An unexpected error was encountered. Processing has aborted.

**User response:** Note the program name and return code and contact IBM Software Support.
GGCM358E Invalid data set DSORG - The job can only be built into a sequential file or a PDS/PDSE. VSAM and other data types are not supported for job generation

Explanation: The data set organization of the file you entered is not supported for job generation. The data set must be a QSAM sequential or a partitioned data set.

User response: Specify a data set of the proper type.

GGCM359E If volume information is entered, a data set name must also be entered

Explanation: Entering volume serial information without a related data set is not consistent. A data set name must be entered as well.

User response: Enter a data set name or remove the value from the volume serial field.

GGCM360E If sequence number information is entered, a data set name must also be entered

Explanation: Entering volume sequence information without entering a related data set is not allowed. A data set name must be entered as well.

User response: Enter a data set name or select a data set using the Select recovery file field.

GGCM361E If sequence number information is entered, volume information must also be entered

Explanation: Entering volume sequence information without entering volume serial information is not allowed. A volume serial must be entered as well.

User response: Enter the volume serial of the data set.

GGCM362E Profile creator/name conflicts with another profile being imported

Explanation: The creator or name of the profile being edited conflicts with another profile being exported within the same job profile.

User response: Change the name and/or the creator name to ensure the profile is unique.

GGCM363E Import file contains a profile with an incompatible version

Explanation: The import file contains a profile that was created prior to Db2 Shared Profile Support V1.3. Profiles created in prior versions must be converted to the current version before export.

User response: Before exporting the profile, convert the previous version of the profile using the

GGCCVBCT in hlevel.SAMPLIB. Then import the profile again.

GGCM364I Data set attribute change detected. Enter "Y" to export to data set

Explanation: A value in the Data Set Name or Member fields was changed, but the Export to Data Set field is set to N.

User response: Press Enter to export to the target subsystem rather than a data set. If you want to export to a file, enter Y in the Export to Data Set field before pressing Enter.

GGCM365E Dataset must be a partitioned data set because multiple members will be generated

Explanation: The data set to hold the generated Restore System Utility JCL must be a partitioned data set because multiple jobs are generated.

User response: Enter a partitioned data set and two unique member names.

GGCM366E The member name entered for the Conditional Restart job cannot be the same as the Restore System Utility member. Please enter a different member for one of the jobs

Explanation: The member names entered must be unique because two jobs are generated to support the Restore System utility. The first job contains JCL to create the conditional restart control record. The second job contains JCL to invoke the Restore System utility.

User response: Enter two unique member names.

GGCM367E The only valid values to the exception rule are "A"ccepted, "R"ejected, and "B"oth

Explanation: An invalid value was entered in the Exception Rule field. This field determines when the utility is run on the objects accepted or rejected as a result of exception processing.

User response: Type A in this field to run the utility on objects accepted (included) as a result of exception processing. Type R to run the utility on objects that are rejected (excluded) as a result of exception processing. Type B to run this utility on all objects regardless of exception processing.

GGCM370E Invalid Value - Please enter the DB2 Buffer Size in Megabytes that you want to allocate. This buffer is used to improve SQL performance for DB2 Version 8 and above. This value must be numeric and be >= 1 and <= 2047
GGCM371E  Invalid Value - Please enter the Secondary Space Allocation as a Percentage of the Primary Space. This value must be numeric and be >= 1 and <= 999

Explanation: An invalid value was entered in the DB2 Fetch Buffer size field.
User response: Enter a valid value as described in the message text.

GGCM372E  The maximum value for the drain wait is 1800 seconds

Explanation: The maximum value for drain wait is 1800 seconds.
User response: Enter a value between 0 and 1800 seconds.

GGCM373E  The maximum value for the number of retries is 255

Explanation: An invalid value was entered in the Retry field.
User response: Enter a valid value that is less than or equal to the maximum of 255.

GGCM374E  The range of valid values for the retry delay is 1-1800 seconds

Explanation: An invalid value was entered in the Retry Delay field.
User response: Enter a valid value that is in the range of 1 to 1800 seconds.

GGCM375E  The object has been dropped from DB2, yet still exists in this object profile. OBIIXLAT functions cannot be selected.

Explanation: The object has been dropped from Db2 but is still present in the object profile.
User response: Remove the object from your object profile.

GGCM380E  The Input DSN and RBA/LRSN, if specified, have to be specified together.

Explanation: You must specify an RBA/LRSN value if you specify a input DSN.
User response: You must specify a value in the RBA/LRSN field for the input DSN you specified.

GGCM382E  Single quote (apostrophe) not allowed in profile name.

Explanation: You included a single quote (apostrophe) in a profile name. Single quotes are not allowed in a profile name.
User response: Remove the single quote character.

GGCM390E  The Group command can only be used on a group profile

Explanation: The G(roup) line command was entered next to an object, utility, or exception profile. The G command can only be used on a job group.
User response: Clear the line command from the Cmd line.

GGCM391E  The Repeat command can only be used on a group or an exception profile

Explanation: The R(epeat) line command was entered next to an object or utility profile. The R command can only be used on a group or an exception profile.
User response: Clear the line command from the Cmd line.

GGCM392E  Profiles can only be added to a group when the group is not hidden

Explanation: The A(dd) line command was entered next to a job group that is hidden.
User response: Enter the G command next to the job group to display all the profiles in the group, then use the A command to add more profiles.

GGCM393E  Invalid group. There must be at least one object profile and one utility profile in the group when the Preview Exception Report Jobs Generation Option is No. Either delete the group and all of its profiles or add the missing profiles.

Explanation: The Job Generation option Preview Exception Report is set to No. When this option is specified, a group in the job profile must contain at least one object profile and one utility profile.
User response: Either delete the group or add the required profiles to the group.
GGCM394E Invalid group. There must be at least one object profile and one exception profile in the group when the Preview Exception Report Jobs Generation Option is set to Yes or an Autonomics Director option is selected. Either delete the group and all its profiles or add the missing profiles.

User response: Either delete the group from the job profile or add the required profiles to the job group.

GGCM395E Invalid exception rule. The exception rule profile does not exist in the group or points to itself. Either delete the exception rule or specify a valid profile number within the group.

Explanation: The Exception Report Job Generation option Preview Exception Report is set to Yes or an Autonomics Director option is selected. When either of these are specified, a group in the job profile must contain at least one object profile and one exception profile.

User response: Specify a valid utility profile or remove the integer from the exception rule field.

GGCM396E Invalid repeated profile. The profile is an exact duplicate of another profile. Either delete the profile or change the exception rule to point to another profile within the group.

User response: Either remove the duplicate exception profile or change the exception rules to point to a different profile in the group.

GGCM397E Invalid utility_type profile. The profile will not be executed. No other profile points to this profile. Either delete the profile or link an exception profile to it.

User response: Delete the profile or link an exception rule to the utility profile.

GGCM398E Invalid exception profile. There are no exception rules specified. However, there are conditional profiles in this jobs group. Either delete the profile or specify an exception rule.

User response: Either delete the exception profile or define exception rules for all of the exception profiles.

GGCM399E Invalid exception rule. Indicate the order number of the profile to be executed next. If specified, it must be numeric and point to another exception profile after the current profile or to a utility profile.

Explanation: An invalid value was entered in the exception rule field.

User response: Enter a valid value in the exception rule field to point to a utility profile, or delete the exception profile.

GGCM400E The online options can only be modified when the "Online 'Rebuild' setting is set to 'Y.'"

Explanation: The online REORG options were selected to be updated, but the online REORG has not been specified for inclusion in the utility profile.

User response: Type Y in the Include field next to the online REORG option, then type Y in the Update field for online REORG to update the options.

GGCM401E This option is only valid when using a version 9 or higher DB2 subsystem.

Explanation: You set an option to a setting that requires Db2 Version 9 or higher.

User response: Change the option setting to an appropriate setting for your version of Db2.

GGCM402E Invalid RESTOREBEFORE Log RBA/LRSN. Specify number hexadecimal digits, or leave blank for non

Explanation: An invalid value was entered in the RESTOREBEFORE Log RBA/LRSN field.

User response: Enter a valid value as listed in the message text, or enter Y in the Select RESTOREBEFORE field to locate an appropriate RBA or LRSN.

GGCM403E A RESTOREBEFORE Log RBA/LRSN point must be before the point-in-time Log RBA/LRSN (TOLOGPOINT) value.

Explanation: A RESTOREBEFORE Log RBA/LRSN must be before the specified point-in-time Log RBA/LRSN.

User response: Enter a RESTOREBEFORE Log RBA/LRSN that is before the point-in-time RBA/LRSN, or enter Y in the Select RESTOREBEFORE Log
RBA/LRSN field to locate an appropriate RBA or LRSN.

**GGCM404E** Invalid value. The only valid values are "E" and "I"

**Explanation:** The value specified in the Exclude field is invalid. Valid values are E (Exclude) and I (Include).

**User response:** Enter a valid value as described in the message text.

**GGCM405E** Invalid Value – Please enter the number of DDs that you want Shared Profile Support Services to generate when generating SORT WORK JCL. For tape SORT work datasets this field can be left blank or must be numeric and be >= 3 and <= 99.

**Explanation:** An invalid value was entered for the number of DDs to be generated for tape sort work JCL. For tape sort work data sets this field can be left blank or must be numeric and be >= 3 and <= 99.

**User response:** Enter a valid value as described in the message text.

**GGCM406E** Invalid Value - Please enter either (D)fsort or (S)yncsort. This value indicates which sort program you want to use for sort processing.

**Explanation:** An invalid value was entered when specifying which sort program to use for sort processing.

**User response:** Enter a valid value as described in the message text.

**GGCM407E** Invalid Value - Please specify the SORTLIB data set name. If Sort Work File Unit Device is set to Tape, then Sortlib DSN has to be specified.

**Explanation:** A value was not entered for the SORTLIB data set name.

**User response:** Specify a valid SORTLIB data set name. If Sort Work File Unit Device is set to Tape, then Sortlib DSN has to be specified.

**GGCM408E** The specified data set could not be found in the MVS catalog

**Explanation:** The specified data set could not be found in the MVS catalog.

**User response:** Verify that the data set you specified is correct.

**GGCM409E** Invalid value. Valid values are "Y", "N", "B", "R"

**Explanation:** An invalid value was entered in the Process Referentially Dependent Tablespaces field.

**User response:** Enter one of the following valid values:
- B: Include RI at build time regardless of LISTDEF job option.
- R: Include RI at run time. LISTDEF job option must be Yes.
- Y: Process RI. LISTDEF job option determines when RI is included. LISTDEF Yes causes RI to be included at runtime. LISTDEF No causes RI to be included at build time.
- N: Do not process RI.

**GGCM410E** Duplicate group number. Each group must be unique. Change the group number to be unique among all groups in the jobs profile

**Explanation:** A group number (in the Order column) is a duplicate of another group.

**User response:** Change the group's order number so that it is unique.

**GGCM411E** Duplicate order number. Each order number must be unique among all other profiles of its type

**Explanation:** An order number duplicates the order number of another of the same type of profile.

**User response:** Change one of the order numbers so that it is unique among profiles of that type.

**GGCM412E** Cannot reorder a repeated profile. To reorder a profile that is repeated, reorder the "original" line

**Explanation:** You cannot reorder a profile or group that was repeated.

**User response:** Change the order number of the original profile or group.

**GGCM413E** Invalid exception profile. Both exception rules point to the same profile

**Explanation:** The same utility profile was specified for objects both accepted and rejected by exception processing.

**User response:** Change the exception rule so that different utility profiles are paired with accepted and rejected objects.
When a control card data set is specified, only 39 job groups are allowed. Press the help key for more information.

Explanation: When a control card data set is specified, only 39 job groups are allowed in the job profile. This is because each job group’s JCL is generated into a unique member name. The last character of the member name is generated by the build process. The build process uses numbers 1 - 9 for the first nine job groups, letters A through Z for the next 26 job groups, then 0, $, #, and @ for the remaining job groups.

User response: Either reduce the number of job groups in the jobs profile or clear the control card data set name in the job options.

Invalid value. Enter a "Y" if you would like to add a new group to this jobs profile or enter an "N" if you do not want to add a new group to this jobs profile.

Explanation: An invalid value was entered in the Add a Group field.

User response: Enter a valid value as described in the message text.

Invalid group name. The group name cannot be blank. Enter a group name.

Explanation: The group name is blank. A name must be specified for a group.

User response: Enter a valid group name.

Invalid value. The "U" and "V" commands are not valid on a job group.

Explanation: An invalid line command was entered for a group.

User response: Remove the invalid line command.

Invalid Value - Enter either (A)ll to process non-partitioned objects altered to partitioned objects at the All Level or P(ar)t to process altered objects at the Partition Level.

Explanation: An invalid value was entered in the Altered Object Adjustment field.

User response: If you want Db2 Change Accumulation Tool to treat ALTERed objects at the ALL Level, enter A. If you want Db2 Change Accumulation Tool to treat ALTERed objects at the PART Level, enter P.

Invalid value. Enter 0-6, SUN-SAT, or *.

Explanation: An invalid value was entered in the Day of the Week field.

User response: Enter a valid value as described in the message text.
GGCM431E  Invalid Value. Enter 1-12, JAN-DEC, or *
Explanation: An invalid value was entered in the Month field.
User response: Enter a valid value as described in the message text.

GGCM432E  Invalid Value. Enter 1-31, or *
Explanation: An invalid value was entered in the Day of Month field.
User response: Enter a valid value as described in the message text.

GGCM433E  Invalid Value. Enter a time between 00:00 - 23:59. * may be used in the hour to indicate each hour of the day
Explanation: An invalid value was entered in the Time of Day field.
User response: Enter a valid value as described in the message text.

Explanation: An invalid value was entered in the field. The minimum and maximum lengths of time that can be provided are listed in the message.
User response: Enter a valid value as described in the message text.

GGCM435I  No time periods were found. Press enter to create a time period
Explanation: No time periods have been created for this maintenance window.
User response: Press Enter to create a time period.

GGCM436E  Duration must be greater than 0000:00:00
Explanation: The duration of a time period must be greater than zero.
User response: Enter a value between 0000:00:00 and 9999:59:59.

GGCM437E  There are no defined time periods available to schedule or unschedule
Explanation: The S or X line command was used to schedule or unschedule a maintenance window, but no time periods are defined for the maintenance window.
User response: Press Enter to continue.

GGCM438I  There are multiple time periods available to schedule/unschedule. Select the time periods that you want to schedule/unschedule
Explanation: You specified to schedule or unschedule a maintenance window, but multiple time periods are defined in the maintenance window.
User response: Select the time periods that you want to schedule or unschedule.

GGCM439I  This time period is not currently scheduled in Admin Scheduler
Explanation: The X line command to unschedule a maintenance window was entered next to a time period that is not currently scheduled.
User response: Clear the line command and press Enter.

GGCM440E  Unschedule command is only available for AUTODIRECTOR windows
Explanation: The X line command to unschedule a maintenance window was entered next to an autonomic statistics maintenance window. This command is only available for Autonomics Director maintenance windows.
User response: Clear the line command and press Enter.

GGCM441E  Source must be D - autoDirector or S - autoStats
Explanation: An invalid value was entered in the Source field.
User response: Enter a valid value as described in the message text.

GGCM442E  When Source is 'S', Window Like must be *
Explanation: When you are viewing autonomic statistics maintenance windows, the only valid value for the Window Like field is *.
User response: Enter * in the Window Like field.

GGCM445I  No actions currently assigned to maintenance window.
Explanation: You specified to view the workload for a maintenance window, but there are no actions currently assigned to the maintenance window. It is possible that the maintenance window has not been scheduled.
User response: No action is required.
GGCM447I  No timeperiods defined for this maintenance window.

Explanation:  There are no defined time periods to view for this maintenance window.

User response:  To add time periods, enter the U line command to update the maintenance window.

GGCM448E  Valid values are N-None or R-Reassign.

Explanation:  An invalid value was entered in the Action Disposition field. Valid values are N (none) to leave actions assigned to current maintenance window or R (reassign) to reassign to a different maintenance window.

User response:  Enter a valid value as listed in the message text.

GGCM449I  Actions reassigned to maintenance_window.

Explanation:  Action(s) have been reassigned to the maintenance window that is listed in the message.

User response:  No action is required.

GGCM450E  No maintenance window selected for reassignment.

Explanation:  A maintenance window was not selected for reassignment of actions.

User response:  If you want to reassign actions, select a maintenance window.

GGCM450E  Acquire must be "A"llocate, "U"se, or Blank(existing value)

Explanation:  An invalid value was entered in the Acquire field.

User response:  Valid values are A to specify that resources for DBRMs are acquired when the plan is allocated or U to specify that resources are acquired when the application first accesses them.

GGCM450E  Cachesize must be 0-4096 or Blank(existing value)

Explanation:  An invalid value was entered in the Cachesize field.

User response:  Enter the size of the authorization cache acquired in the EDM pool for the plan. Valid values are from 0 to 4096.

GGCM502E  This option is only valid when using a version 9 or higher DB2 subsystem

Explanation:  You set an option to a setting that requires Db2 Version 9.1 or later.

User response:  Change the option setting to an appropriate setting for your version of Db2.

GGCM503E  Degree must be "I", "A"ny, or Blank(existing value)

Explanation:  An invalid value was entered in the Degree field.

User response:  Type A to allow parallel processing; type 1 to prohibit parallel processing.

GGCM504E  Disconnect must be "A"utomatic, "C"onditional, "E"xplicit, or Blank(existing value)

Explanation:  An invalid value was entered in the Disconnect field.

User response:  Type A to destroy all remote connections. Type C to destroy all remote connections unless an open cursor defined as WITH HOLD is associated with the connection. Type E to destroy only connections in the release pending state.

GGCM505E  When either Histogram NUMCOLS or NUMQUANTILES is specified, then both values must be specified

Explanation:  You entered a value for one of the Histogram fields.

User response:  You must specify a value for both of the Histogram fields.

GGCM506E  Encoding must be "A"SCII, "E"BCDIC, "U"NICODE, numeric CCSID, or Blank(existing value)

Explanation:  An invalid value was entered in the Encoding field. This field sets the application encoding for all host variables static statements in the plan or package.

User response:  Enter a valid value as described in the message text.

GGCM507E  Flag must be "C", "E", "I", "W", or Blank(existing value)

Explanation:  An invalid value was entered in the Flag field.

User response:  Enter one of the following:

• C: Completion messages only
• E: Error and completion messages

Chapter 10. Troubleshooting  373
• I: Information, warning, error and completion messages
• W: Warning, error and completion messages
• Blank: Previous value

GGCM508E  Isolation must be "CS", "NC", "RR", "RS", 
"UR", or Blank (existing value)

Explanation: An invalid value was entered in the Isolation field.

User response: Enter one of the following:
• CS: Cursor stability
• NC: No commit
• RR: Repeatable read
• RS: Read stability
• UR: Uncommitted read

GGCM509E  Release must be "C"ommit, "D"eallocate, 
or Blank (existing value)

Explanation: An invalid value was entered in the Release field.

User response: Type C to release at each commit point. Type D to release when the program terminates.

GGCM510E  Reopt must be "A"lways, "N"one, 
"O"nce, or Blank (existing value)

Explanation: An invalid value was entered in the Reopt field.

User response: Enter one of the following:
• A: Always: Determines the access path again at run time each time the statement is run.
• N: None: Does not determine an access path at run time.
• O: Once: Determines the access path for any dynamic statement only once, at the first run time or at the first time the statement is opened.

GGCM511E  SQL Rules must be "D"B2, "S"tandard, 
or Blank (existing value)

Explanation: An invalid value was entered in the SQL RULES field.

User response: Enter D to indicate that no error occurs if CONNECT identifies an existing SQL connection. Enter S to indicate that an error occurs if CONNECT identifies an existing SQL connection.

GGCM512E  Validate must be "B"ind, "R"un, or 
Blank (existing value)

Explanation: An invalid value was entered in the Validate field.

User response: Enter B to indicate that if not all objects or needed privileges exist at bind time, the process issues error messages, and does not bind or rebind the plan or package. Enter R to indicate that if not all objects or privileges exist at bind time, the process issues warning messages, but the bind succeeds.

GGCM513E  Invalid value. The only valid values are 
"Y"es, "N"o, and "V"iew.

Explanation: The value specified is not valid.

User response: Specify a valid value, 'Y'es, 'N'o, or 'V'iew.

GGCM514I  There are additional options on the 
Rebind Utility Options screen. Press 
<PF8> to scroll down and view them

Explanation: This informational message appears upon accessing a scrollable screen as a reminder to scroll down to view all fields. Press PF8 to scroll down and view the rest of the fields. Press PF7 to scroll up.

User response: No action is required.

GGCM515E  Field must be "Y"es, "N"o, or Blank 
(existing value)

Explanation: An invalid value was entered in a field. The cursor is positioned on the invalid entry.

User response: Correct the invalid value.

GGCM516E  Invalid value. The OBID must be in the 
range of 1-32767.

Explanation: The specified OBID value is not valid.

User response: Specify an OBID value in the range of 1-32767.

GGCM517E  The Translate data set name must be 
specified.

Explanation: The translate data set name was not specified.

User response: Specify the translate data set name.

GGCM518E  The value must be between 1 and 65535, 
or if negative, between -32768 and -1.

Explanation: The specified value is not valid.

User response: Specify a value between 1 and 65535, or if negative, between -32768 and -1.
<table>
<thead>
<tr>
<th>Error Code</th>
<th>Message</th>
<th>Explanation</th>
<th>User Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGCM519E</td>
<td>Invalid value. The only valid values are &quot;Y&quot;es, &quot;N&quot;o, and &quot;V&quot;iew.</td>
<td>The value specified is not valid.</td>
<td>Specify a valid value, &quot;Y&quot;es, &quot;N&quot;o, or &quot;V&quot;iew.</td>
</tr>
<tr>
<td>GGCM522E</td>
<td>Field must be &quot;Y&quot;es, &quot;N&quot;o, or Blank (existing value)</td>
<td>An invalid value was entered in a field. The cursor is positioned on the invalid entry.</td>
<td>Correct the invalid value.</td>
</tr>
<tr>
<td>GGCM523E</td>
<td>REOPTSCOPE may only be specified with REOPT(ONCE) or REOPT(AUTO)</td>
<td>You entered N or A in the Reopt field, but entered a value other than blank in the Reopt Scope field.</td>
<td>Change either Reopt or Reopt Scope so that the values do not conflict.</td>
</tr>
<tr>
<td>GGCM525E</td>
<td>field_name is only valid for DB2 version version or higher. It will be set to a valid_value</td>
<td>You set an option to a setting that requires a Db2 higher than the version you are using.</td>
<td>This option will be set to a valid value for your version of Db2.</td>
</tr>
<tr>
<td>GGCM528E</td>
<td>field_name must be in range range</td>
<td>An invalid value was entered in the Exceptions field.</td>
<td>Either remove the Switch option or remove all other rebind options.</td>
</tr>
<tr>
<td>GGCM529E</td>
<td>field must be blank or in range valid_range</td>
<td>An invalid value was entered in the field listed in the message.</td>
<td>Specify D or T to indicate that the device should be accepted as a valid DASD or tape device. If the device entered was a mistake, leave the device type blank.</td>
</tr>
<tr>
<td>GGCM530E</td>
<td>LOB dependency checking not available before DB2 V10</td>
<td>LOB dependency checking is not available in the current release.</td>
<td>Set this field to N or CANCEL out of the current panel.</td>
</tr>
<tr>
<td>GGCM531E</td>
<td>LOB exclude function not available before DB2 V10</td>
<td>LOB exclude function is not available in the current release.</td>
<td>Set this field to N or CANCEL out of the current panel.</td>
</tr>
<tr>
<td>GGCM532E</td>
<td>Cannot exclude LOBs unless checking LOB dependencies</td>
<td>Exclude objects that failed Dependency check was selected, but Perform LOB Dependency checks was not selected. The exclude selection is only available when the dependency check is also selected.</td>
<td>Set this field to N, or set the Perform LOB Dependency Checks field to Y, or cancel out of the current panel.</td>
</tr>
<tr>
<td>GGCM534E</td>
<td>Switch must be &quot;O&quot;riginal, &quot;P&quot;revious, or Blank(existing value)</td>
<td>Switch restores all previous or original package/plan information in the catalog and directory to that of the specified package/plan copy. This option allows fallback to an older copy in the event of a performance regression.</td>
<td>Set this field to P for Previous or O for Original.</td>
</tr>
<tr>
<td>GGCM535E</td>
<td>Switch option may not be specified with any other rebind option.</td>
<td>The Switch rebind option may not be specified with any other rebind option.</td>
<td>Either remove the Switch option or remove all other rebind options.</td>
</tr>
<tr>
<td>GGCM536E</td>
<td>Invalid device type. Must be D, T, or blank</td>
<td>You selected a device type that was not D (DASD), T (tape), or blank.</td>
<td>Specify D or T to indicate that the device should be accepted as a valid DASD or tape device. If the device entered was a mistake, leave the device type blank.</td>
</tr>
<tr>
<td>GGCM537E</td>
<td>Access Path Retain Duplicate only applies when Plan Management is Basic or Extended</td>
<td>You specified Access Path Retain Duplicate REBIND option. This is only valid when Plan Management is Basic or Extended.</td>
<td>Either remove the Access Path Retain</td>
</tr>
</tbody>
</table>

Chapter 10. Troubleshooting 375
Duplicate option or change Plan Management to Basic or Extended.

**GGCM544E** Invalid Value - Please enter either (Y)es or (N)o. This value indicates whether you want to preview what objects are triggered by exception processing without generating JCL.

*Explanation:* An invalid value was entered in the Preview Exception Report field.

*User response:* Enter Y if you want to preview the objects that exception processing triggers without generating utility JCL. This allows you to see which objects are be triggered by using only object and exception profiles. Enter N to have Db2 Change Accumulation Tool generate utility JCL based on the specified object, utility, and exception profiles.

**GGCM546E** Invalid value. The only valid values are "Y" and "N", "C" and blank.

*Explanation:* An invalid value was entered in the FlashCopy Options field.

*User response:* Enter one of the following valid values:
- Y: Generate FLASHCOPY YES.
- C: Generate FLASHCOPY CONSISTENT.
- N: Generate FLASHCOPY NO.
- blank: Omit the FLASHCOPY keyword. If there is a system default setting for FLASHCOPY, it will be honored when this field is left blank.

**GGCM547E** FlashCopy Dataset option can be Y only when FlashCopy is Y or C.

*Explanation:* A Y was entered in the View/Update FlashCopy Dataset Options field, but no value was entered in the FlashCopy Options field.

*User response:* Change the value in the View/Update FlashCopy Dataset Options field to N, or change the FlashCopy Options field to Y or C.

**GGCM550E** Command conflict.

*Explanation:* Two conflicting line commands have been specified.

*User response:* Remove one of the conflicting line commands.

**GGCM551E** Block command incomplete.

*Explanation:* The line commands that are required to complete a block action were not specified.

*User response:* Specify the required line commands to complete the block action.

**GGCM552I** The SQL statement returned 0 rows.

*Explanation:* The WHERE clause returned no rows.

*User response:* If this result is unexpected, edit the WHERE clause.

**GGCM553I** Move/Copy pending.

*Explanation:* Either the B (Before) or A (After) command is missing for a move or copy command or a B (Before) or A (After) command is specified and the move or copy command is missing.

*User response:* Reenter the line command to comply.

**GGCM554E** Data set must have an LRECL of 80.

*Explanation:* The data set that you are importing must be defined with an LRECL of 80.

*User response:* Re-create the data set with the correct LRECL.

**GGCM555E** Update SQL cannot be "Y" if Advanced SQL is not selected.

*Explanation:* You specified to update SQL, but the Advanced SQL feature was not specified.

*User response:* Either set the Update SQL field to N, or set the Advanced SQL field to Y.

**GGCM556E** SQL statement does not conform to rules.

*Explanation:* The statement does not conform to the rules for SQL statements.

*User response:* The statement must be a SELECT statement that meets the following requirements:
- Two or three columns must follow the SELECT keyword.
- The first column must be a column of a Db2 table that represents a database name.
- The second column must be a column of a Db2 table that represents a table space name.
- The third column is optional, but if specified must be a column of a Db2 table that represents a partition number.
- The FROM keyword must follow the select columns.

Correct the SQL statement. To test the validity of the statement, enter the EXECUTE command in the Option field.

**GGCM557E** No SQL statement specified. Resetting Advanced SQL to "N".

*Explanation:* Advanced SQL was specified, but no
SQL statement was provided. The Advanced SQL field was set to N.

User response: To specify an SQL statement, enter Y in the Update SQL field.

---

GGCM558E  There is no SQL statement to execute.

Explanation: The EXECUTE command was ignored because no SQL statement was specified.

User response: Before you enter the EXECUTE command, enter a valid SQL statement.

---

GGCM559E  Invalid substring. Required trailing period missing.

Explanation: A substring was detected that did not have a trailing period. This is required for template variables.

User response: Before you enter the EXECUTE command, enter a valid SQL statement.

---

GGCM560E  Autonomic Director features not enabled

Explanation: Db2 Autonomic Director features are available only for Db2 Version 10 New Function Mode and above, and only when IBM Db2 Utilities Solution Pack is purchased and configured.

User response: Change the value in the field so that you are not attempting to view or use Autonomics Director features.

---

GGCM562E  The entered device type is not allowed for the sort device type.

Explanation: An invalid device type was entered in the Sort Device Type field.

User response: Enter an existing device type that is listed in the Eligible Device Table, or enter a new valid DASD device name.

---

GGCM600I  No inline data to format in CLOB column

Explanation: You selected a CLOB item to format, but it has no inline portion. Format only supports the inline portion of a CLOB.

User response: No action is required.

---

GGCM601E  Invalid time zone format

Explanation: A timestamp with time zone column was being saved, but the zone format is invalid. The correct zone format is Sdd:dd, where S is +/- (plus or minus), and d are valid decimal digits.

User response: Changes are discarded.

---

GGCM602E  DB2 Autonomic Statistics is only valid for DB2 Version 10 NFM and above

Explanation: Db2 Autonomic Statistics is not valid for your version of Db2.

User response: Verify that you have the correct version of Db2.

---

GGCM603E  SPRMADMT is missing.

Explanation: The SPRMADMT field is missing. This field is found in the ZPARMS load module. It is required when scheduling a task to the Db2 administrative task scheduler.

User response: Ensure that the Db2 load libraries and the Db2 ZPARMS member, which are specified in the setup options (option 0.1 from the Db2 Change Accumulation Tool main menu), are correct.

---

GGCM605W  Import successful but the RECOVER RBA/LRSN was not found in SYSCOPY. This value will be discarded.

Explanation: The point-in-time LOG RBA/LRSN and/or RESTOREBEFORE LOG RBA/LRSN values were not found in SYSCOPY. These values will be discarded.

User response: No action is required.
GGCM606E  When TO Method=L(og), the value for Verifyset should be Y(es) or N(o).

Explanation:  In Db2 V10 NFM and above, when the field TO Method=L(log), the value for the Verifyset field should be Y(es) or N(o).

User response:  Enter a valid value in the Verifyset field.

GGCM607E  Invalid value. The only valid values are "Y", "N", and blank.

Explanation:  An invalid value was entered in a field that only accepts Y, N, or blank.

User response:  Enter a valid value as described in the message text.

GGCM608E  When TO Method=C(opy), the value for VERIFYSET should be blank.

Explanation:  In Db2 V10 NFM and above, when the field TO Method=C(opy), the value for the Verifyset field should be blank.

User response:  Enter a valid value as described in the message text.

GGCM609E  Invalid TO method. Specify "L" for Log, "C" for Copy, or "E" for Error

Explanation:  An invalid value was entered in the TO method field. Valid values are L to recover to a point on the log, C to recover to an image copy, or E to recover pages with reported I/O errors.

User response:  Enter a valid value as listed in the message text.

GGCM610E  Invalid site. Specify "L" for Local, "R" for Recovery, or blank for current

Explanation:  An invalid value was entered in the Site field. This field specifies which image copies are used during the recovery. If no value is specified, the RECOVER utility will use image copies from the current site of invocation.

User response:  Enter a valid value as listed in the message text.

GGCM611E  Invalid object event. Specify "Q" for Quiesce, or blank for none

Explanation:  An invalid value was entered in the Object Event field. This field is used to specify the type of log recovery:
  • If you enter Q in the Object event field, and enter a value in the Event generation field other than 00 (such as -2), recovery will be to the specified number of quiesce points back from the last quiesce point.

User response:  Enter a valid value as listed in the message text.

GGCM612E  Invalid Log RBA/LRSN. Specify number hexadecimal digits, or leave blank for current

Explanation:  An invalid value was entered in the Log RBA/LRSN field.

User response:  Enter a valid value as listed in the message text, or enter Y in the Select point-in-time field to locate an appropriate RBA or LRSN.

GGCM613E  Invalid Log reuse. Specify "Y" for Yes, "N" for No, or "L" for Log Only

Explanation:  An invalid value was entered in the Log reuse field. This field specifies whether to reset and reuse Db2 managed data sets without deleting and redefining them. N specifies that the Db2 managed data sets should be deleted and redefined to reset them. L (log only) specifies that the target objects should be recovered from their existing data sets by applying only log records (no image copies) to the data sets.

User response:  Enter a valid value as listed in the message text.

GGCM614E  Invalid object event. Specify "L" for Last, "F" for Full, "I" for Incremental, "N" for Nosyscopy, or blank for none

Explanation:  An invalid value was entered in the Object Event field. This field is used to specify the type of recovery to a copy:
• If you enter L, F, or I in the Object event field, and enter 00 in the Event generation field, recovery will be to the last (most recent) specified copy.
• If you enter L, F, or I in the Object event field, and enter a value in the Event generation field other than 00 (such as -2), recovery will be to the specified number of copies back from the last (most recent) copy.
• If you leave this field blank, you must enter or select a recovery file from which to recover.
• For Db2 V12 and later, you can enter N to recover from a copy that is not included in SYSIBM.SYSCOPY. You must enter a recovery file from which to recover.

User response: Enter a valid value as listed in the message text.

GGCM617E  Invalid copy reuse. Specify "Y" for Yes, or "N" for No
Explanation: An invalid value was entered in the Reuse existing data sets field.
User response: Enter a valid value as listed in the message text.

GGCM618E  Invalid RBA/LRSN value. Specify number hexadecimal digits.
Explanation: The RBA/LRSN value you specified is not valid.
User response: Correct the JCL and resubmit the job.

GGCM619E  Invalid timestamp. Format "CCYY-MM-DD-HH.MM.SS.thmiju", from "1990-01-01-00.00.00.000000", to "2042-09-17-00.00.00.000000"
Explanation: An invalid timestamp was entered in the Start or End timestamp fields.
User response: Enter a valid value as listed in the message text.

GGCM620E  FlashCopy dsn requires dsnum qualifier code
Explanation: FlashCopy data sets must include the dsnum number variable as part of the data set name. A substring of the dsnum variable will also work.
User response: Enter a dsnum as part of the data set name. Qualifier code 32 will insert the required value.

Note: The dsnum variable is numeric, so it cannot stand alone as a data set qualifier.

GGCM621E  FlashCopy is only valid when using a version 10 or higher DB2 subsystem
Explanation: Support for Db2 FlashCopy was introduced in Db2 V10. The current subsystem is not at a level capable of supporting FlashCopy.
User response: Select a different method for the image copy.

GGCM622E  Specify all disposition values or none of them
Explanation: You have specified at least one of the three data set disposition values, but not all of them.
User response: Either specify all of the disposition values or none of them.

GGCM623E  The retention period and expiration date fields cannot be entered at the same time
Explanation: You entered a value in both the Expiration date and Retention period fields. This combination is not allowed.
User response: Clear the value from either the Expiration date or Retention period field.

GGCM624E  Invalid value. The expiration date must be in the form of YYDDD or YYYYDDD. Please correct and resubmit
Explanation: An invalid value was entered in the Expiration Date Field.
User response: Enter a value in the format YYDDD or YYYYDDD.

GGCM625E  Invalid value. Days entered for a leap year cannot exceed 366
Explanation: An invalid value was entered in the Expiration Date Field. The year entered is a leap year and the day exceeds 366.
User response: Correct and resubmit.

GGCM626E  Invalid value. Days entered cannot exceed 365
Explanation: An invalid value was entered in the Expiration Date Field. The year entered is not a leap year and the day exceeds 365.
User response: Correct and resubmit.
Use Freeform Literal option was selected with no value entered for Free Form Literal

Explanation: Freeform Literal qualifier code was selected with no value entered for Freeform Literal.

User response: Include a value for Freeform Literal or deselect the Freeform qualifier code.

The entered device type is not recognized by z/OS as a valid DASD device type

Explanation: An invalid device type was entered in the Unit Type field.

User response: Enter a valid DASD device type or clear the field.

The only valid values are "S" for the Set command, "D" for the DBD command, and "L" for the LevelID command

Explanation: An invalid value was entered in the Process field.

User response: Enter a valid value as listed in the message text.

If the DBD option is selected, the DBD sub-option selection cannot be set to "N"o

Explanation: You selected the DBD option for repair (D in the Process field), but an N still appears in the DBD Process Option field.

User response: Specify one of the DBD Process Options of Drop, Test, Diagnose, or Rebuild.

If the process mode is not DBD, the DBD sub-option field must be set to "N"o

Explanation: An invalid value was entered in the DB2 Process Option field.

User response: Enter a valid value as listed in the message text.

If the process mode is not DBD, the output DDNAME for the DBD processing mode cannot be specified

Explanation: You entered a DD name in the Output DDname field for the DBD options, but DBD processing has not been specified.

User response: Either clear the Output DDname field or change the Process field to D to select DBD processing.

At least one repair type function must be selected when repair is used

Explanation: If the Process field is set to S, one of the repair functions must be selected. This option resets the pending statuses of the objects.

User response: Select one of the repair functions (No Copy Pending, No Recover Pending, No Check Pending, No Auxiliary Warning, No Auxiliary Check Pending, or No Rebuild Pending).

Because an invalid combination of options existed in the Repair Options screen, the Repair option has been set to "N"o

Explanation: The repair utility option was set to N.

User response: No action is required.

Invalid Update option. Specify "A" for All, "P" for Path, "S" for Space, or "N" for None

Explanation: An invalid value was entered in the Update catalog tables or Update history tables field.

User response: Enter a valid value as listed in the message text.

Invalid Update option. Specify "A" for All, "P" for Path, "S" for Space, or "N" for None

Explanation: An invalid value was entered in the Update catalog tables or Update history tables field.

User response: Enter a valid value as listed in the message text.

Allocation Error - The ISPFILE DD is already allocated and cannot be deallocated - Process not completed

Explanation: The ISPFILE DD allocation failed. The DD is already allocated and cannot be deallocated for this TSO session. The process did not complete successfully.

User response: Free the ISPFILE DD. You must exit...
the product and re-enter, then rebuild the job.

**GGCM641E**  Allocation Error - An error was encountered allocating the ISPWRK1 or ISPWRK2 DD - Process not completed

**Explanation:** The ISPWRK1 or ISPWRK2 DD allocation failed. The process did not complete successfully.

**User response:** Verify TSO session parameters are set correctly for your site prior to allocation of these DD statements.

**GGCM642E**  Field Required - The data set entered is a partitioned data set and the member name is required

**Explanation:** A required field was not entered. The data set entered is a PDS (partitioned data set) and a member in this PDS must be referenced.

**User response:** Enter a valid member name for PDS access.

**GGCM643W**  The Static Job Build data set was specified in job options, but is either invalid or no longer exists in the MVS catalog. Pre-existing data set and member values will be used.

**Explanation:** A value was specified for the Static Job Build Dataset and Member fields, but the data set is either invalid or it no longer exists in the MVS catalog.

**User response:** Update the Generation Options panel to include a valid job build data set and member, or enter the desired values here.

**GGCM644E**  The only valid values are "N"o to not use the skeletons, "B"efore to insert the skeletons before generated JCL, and "A"fter to insert the skeletons after the generated JCL.

**Explanation:** An invalid value was entered in the Run User Step field.

**User response:** Enter a valid value as described in the message text.

**GGCM645E**  If the skeletal control is "B"efore or "A"fter, at least one skeletal member name must be entered in the following fields

**Explanation:** You specified to run a user step either before or after the generated job, but no JCL skeleton member has been specified. You must enter a member name in the JCL Skeletal, Control Cards Skeletal, and/or Step End Skeletal fields.

**User response:** Enter the member name of the skeleton you wish to use in the appropriate field.

**GGCM646E**  Invalid Value. Enter a "Y" if you would like to Rebind dependent Plans and Packages or "N" to bypass Rebind

**Explanation:** An invalid value was entered in the Rebind Dependent Plans / Packages field.

**User response:** Enter a valid value as listed in the message text.

**GGCM647E**  Invalid Value. Enter a "Y" if you would like to pad unused jobs with IEFBR14 jobs or "N" to build only the nbr of jobs necessary

**Explanation:** An invalid value was entered in the Pad Jobs if max not exceeded field.

**User response:** Enter a valid value as listed in the message text.

**GGCM648E**  Invalid value. The Utility ID, if entered, must be an alphabetic character followed by alphanumerics, "#", "$", ",", ",e", ",i", ",n", or ",@" characters with no embedded blanks.

**Explanation:** An invalid value was entered in the Utility ID field.

**User response:** Enter a valid value as listed in the message text.

**GGCM649W**  Line commands were cleared for a cursor sensitive screen command.

**Explanation:** When a screen command such as "FORM" is entered, the screen navigation follows the cursor position, not any entered line command. Non-blank line commands have been cleared.

**User response:** No action is required.

**GGCM650E**  Invalid value - Enter a "B" to build the job, "D" to delete job data, "S" to select step data, or "O" to select object data.

**Explanation:** An invalid line command was entered next to a job name on the Execution Reports Job Display.

**User response:** Enter a valid value as listed in the message text.

**GGCM651E**  "R" command invalid on successfully completed job

**Explanation:** An R command was entered next to a job that successfully completed. You cannot restart a job that has a RC of 0.

---

Chapter 10. Troubleshooting  381
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGCM652E</td>
<td>Process RI must be N when partition is specified</td>
<td>Clear the R command from the line command area.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>The Process RI field cannot be set to Y for a partitioned space.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Change the Process RI field to N.</td>
<td></td>
</tr>
<tr>
<td>GGCM653E</td>
<td>Control card data set must be a valid, existing partitioned data set</td>
<td>Enter an existing partitioned data set in the Control Card Dataset field.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>An invalid data set was entered for the control card data set.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Enter an existing partitioned data set in the Control Card Dataset field.</td>
<td></td>
</tr>
<tr>
<td>GGCM654E</td>
<td>Invalid member name. Only A-Z, 0-9, @, #, and $ are valid; First character must be A-Z, @, #, or $</td>
<td>Enter a valid member name or press END to exit the panel.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>An invalid member name was entered.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Enter a valid member name or press END to exit the panel.</td>
<td></td>
</tr>
<tr>
<td>GGCM655E</td>
<td>An Exception CONDITION has been corrupted in this profile. Page through the profile to find the corrupted CONDITION or enter the END command (default PF3) to position to the corrupted condition. Update the condition and save the updated profile</td>
<td>Press PF3 (END) to exit the help panel, then press PF3 (END) again to position the cursor on the corrupted condition. Update the condition and save the updated profile.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>One or more of the exception conditions in this exception profile has been corrupted.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Press PF3 (END) to exit the help panel, then press PF3 (END) again to position the cursor on the corrupted condition. Update the condition and save the updated profile.</td>
<td></td>
</tr>
<tr>
<td>GGCM656E</td>
<td>An exception condition has been corrupted in this profile. Page through the profile to find the corrupted condition. Update the exception profile to specify the missing condition</td>
<td>Press PF3 (END) to exit the help panel, then press PF3 (END) again to locate the corrupted condition. You must then exit view mode and update the exception profile to correct the condition. Save the updated profile.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>One or more of the exception conditions in this exception profile has been corrupted.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Press PF3 (END) to exit the help panel, then press PF3 (END) again to locate the corrupted condition. You must then exit view mode and update the exception profile to correct the condition. Save the updated profile.</td>
<td></td>
</tr>
<tr>
<td>GGCM657E</td>
<td>User does not have sufficient authority to perform a -DISPLAY command. This command is used to determine the current DB2 operating Mode</td>
<td>Check with your Db2 administrator to verify or obtain the proper authority.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>Your authorization ID has not been granted privileges to issue the DISPLAY GROUP command.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Check with your Db2 administrator to verify or obtain the proper authority.</td>
<td></td>
</tr>
<tr>
<td>GGCM658E</td>
<td>Insufficient storage for DB2 work area buffer</td>
<td>Increase your TSO region size and rerun the application.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>Storage for a Db2 work area buffer could not be obtained.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Increase your TSO region size and rerun the application.</td>
<td></td>
</tr>
<tr>
<td>GGCM659E</td>
<td>A name of a valid partitioned data set and member name are required</td>
<td>Specify a valid partitioned data set and member name.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>The partition data set name and member name are required.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>Specify a valid partitioned data set and member name.</td>
<td></td>
</tr>
<tr>
<td>GGCM660E</td>
<td>LISTAPARS Job jobname successfully submitted.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>Explanation:</td>
<td>The job was successfully submitted.</td>
<td></td>
</tr>
<tr>
<td>User response:</td>
<td>No action is required.</td>
<td></td>
</tr>
<tr>
<td>GGCM661E</td>
<td>Invalid Value - Enter &quot;N&quot; for None, &quot;B&quot; for Basic, &quot;E&quot; for Extended, or blank.</td>
<td>Enter one of the following valid values:</td>
</tr>
<tr>
<td>Explanation:</td>
<td>An invalid value was entered in the RBALRSN_CONVERSION field.</td>
<td>- N: No conversion is to be performed.</td>
</tr>
<tr>
<td>User response:</td>
<td>Enter one of the following valid values:</td>
<td>- B: Convert objects in extended format to basic format.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- E: Convert objects in basic format to extended format.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- blank: The conversion specified in the UTILITY_OBJECT_CONVERSION ZP ARM setting will be honored.</td>
</tr>
<tr>
<td>GGCM662E</td>
<td>Data set must be a partitioned data set because multiple members will be generated</td>
<td>The data set to hold the generated JCL must be a partitioned data set. Multiple members are generated since a control card data set is specified and multiple job groups are being built. Each job group's</td>
</tr>
</tbody>
</table>
JCL is generated into a unique member name. The last character of the member name is generated by the build process. The build process uses numbers 1 - 9 for the first nine job groups, letters A - Z for the next 26 job groups, then 0, $, #, and @ for the remaining job groups.

User response: Change the output data set to a partitioned data set.

GGCM665E  The JCL member name must be less than or equal to 7 characters

Explanation: Multiple members will be generated since a control card data set is specified and multiple job groups are being built. Each job group's JCL is generated into a unique member name. The last character of the member name is generated by the build process. The build process uses numbers 1 - 9 for the first nine job groups, letters A - Z for the next 26 job groups, then 0, $, #, and @ for the remaining job groups. If a batch job is being generated, this restriction prevents a duplicate member name from being generated when the same job build data set is specified for the batch build job output and the output data set that holds the generated utility JCL.

User response: Change the member name to 7 characters or less.

GGCM665E  The JCL member name must be less than or equal to 7 characters

Explanation: Multiple members will be generated since a control card data set is specified and multiple job groups are being built. Each job group's JCL is generated into a unique member name. The last character of the member name is generated by the build process. The build process uses numbers 1 - 9 for the first nine job groups, letters A - Z for the next 26 job groups, then 0, $, #, and @ for the remaining job groups. If a batch job is being generated, this restriction prevents a duplicate member name from being generated when the same job build data set is specified for the batch build job output and the output data set that holds the generated utility JCL.

User response: Change the output data set to a partitioned data set.

GGCM670E  Process RI cannot be R for wildcarded objects by partition.

Explanation: The Process RI field cannot be set to R for wildcarded objects that are processed at the partition level.

User response: Specify Y, B, or N in the Process RI field.

GGCM700F  Private Protocol is not supported in this release of DB2. Defaulting to blank

Explanation: Private protocol is only supported for Db2 V9 and earlier. The value is removed from the Database Connect Protocol field.

User response: Specify a different value or leave this field blank.

GGCM701E  Reopt Scope must be "A"ll, "D"ynamic, "S"tatic, or Blank(existing value)

Explanation: An invalid value was entered in the Reopt Scope field.

User response: Enter a valid value as described in the message text.

GGCM702E  Access Path Compare must be "W"arn, "E"rror, "N"one, or Blank(existing value)

Explanation: An invalid value was entered in the Access Path Compare field.

User response: Enter a valid value as described in the message text.

GGCM703E  Access Path Reuse must be "Y"es, "N"o, or Blank(existing value)

Explanation: An invalid value was entered in the Access Path Reuse field.

User response: Enter a valid value as described in the message text.

GGCM704E  Plan Management must be "O"n, "O"ff, "B"asic, "E"xtended, or Blank(existing value)

Explanation: An invalid value was entered in the Plan Management field.

User response: Enter a valid value as described in the message text.

GGCM705E  Plan Management Scope must be "A"ll, "D"ynamic, "S"tatic, or Blank(existing value)

Explanation: An invalid value was entered in the Plan Management Scope field.

User response: Enter a valid value as described in the message text.

GGCM706E  Explain must be "Y"es, "N"o, "O"nly or Blank(existing value)

Explanation: An invalid value was entered in the Explain field.

User response: Enter a valid value as described in the message text.

GGCM707E  Explain "O"nly is valid for DB2 Version 10 and above. Resetting to blank.

Explanation: The value you specified is not valid for your version of Db2.

User response: Correct the JCL and resubmit the job.
GGCM708E Concurrent Access Resolution must be "U"se Currently Committed, "W"ait for Outcome, or Blank(existing value)

Explanation: Concurrent Access Resolution option must be one of the following values: U - Use currently committed, W - Wait for outcome or blank - use previous value.

User response: Specify a different value or leave this field blank.

GGCM709E Utilities cannot be defined on excluded objects.

Explanation: You attempted to define a utility on an excluded object.

User response: Modify the utility so it does not reference an excluded object.

GGCM710E field must not be blank

Explanation: The field listed in the message is blank. This field is required.

User response: Type a valid value in this field and press Enter.

GGCM711E Invalid Value. Job Wait must be Y, N, or P

Explanation: An invalid value was entered in the Job Wait field.

User response: Enter Y to indicate synchronous execution; enter N to indicate asynchronous execution; or enter P to specify synchronous execution after which the job status in z/OS is purged.

GGCM712E Invalid Value. Job Condition must be GT, GE, EQ, LT, LE or NE

Explanation: An invalid value was entered for the trigger task Cond field.

User response: Enter a valid value as listed in the message text.

GGCM713E Task name already exists

Explanation: The task name entered duplicates another task name. The task name must be unique.

User response: Enter a unique task name and press Enter.

GGCM714E Specify selection criteria and press <Enter>

Explanation: To display a list of tasks for the Db2 administrative task scheduler, enter criteria in the Task

User response: No action is required.

GGCM715I Task task_name has been successfully deleted

Explanation: The task listed in the message has been successfully deleted.

User response: No action is required.

GGCM716I No tasks were found that meet selection criteria. Press enter to create a task or change the selection criteria

Explanation: There are no tasks that meet the selection criteria entered in the Task Name Like and Task Creator Like fields.

User response: Press Enter to create a new task, or change the selection criteria in those fields.

GGCM717I Task task_name has been successfully added

Explanation: The task listed in the message has been successfully added.

User response: No action is required.

GGCM718E A JCL library or Procedure must be specified

Explanation: An execution source must be provided for the task.

User response: Enter either a JCL job in a data set or a stored procedure, then press Enter.

GGCM719I Task task_name has been updated.

Explanation: The task listed in the message has been successfully updated.

User response: No action is required.

GGCM720E Begin | End Timestamp must be later then current time.

Explanation: The beginning or ending timestamp listed in the message is before the current time.

User response: Enter a timestamp that is after the current timestamp and press Enter.

GGCM721I Window | time_period task_name has been successfully unscheduled

Explanation: The window or time period specified in the message text has been successfully unscheduled.

User response: No action is required.
This task has not been executed

Explanation: The task you selected to check the status of has not been executed.

User response: No action is required.

Invalid CRON minute

Explanation: The CRON minute in the Point in Time field is not valid.

User response: Valid values are:
  - A numeric from 0 to 59
  - A range (two numbers separated with a hyphen, such as 2-50)
  - A list (numbers separated with commas, such as 1,3,5)
  - An asterisk (*), which represents all possible values

For information about the unix CRON format for the Db2 administrative task scheduler, refer to https://www.ibm.com/support/knowledgecenter/en/SSEPEK and the administration topics for your version of Db2.

Invalid CRON hour

Explanation: The CRON hour in the Point in Time field is not valid.

User response: Valid values are:
  - A numeric from 0 to 23
  - A range (two numbers separated with a hyphen, such as 1-3)
  - A list (numbers separated with commas, such as 1,3,5)
  - An asterisk (*), which represents all possible values

For information about the unix CRON format for the Db2 administrative task scheduler, refer to https://www.ibm.com/support/knowledgecenter/en/SSEPEK and the administration topics for your version of Db2.

Invalid CRON day of month

Explanation: The CRON day of the month in the Point in Time field is not valid.

User response: Valid values are:
  - A numeric from 0 to 31
  - A range (two numbers separated with a hyphen, such as 1-3)
  - A list (numbers separated with commas, such as 1,3,5)
  - An asterisk (*), which represents all possible values

For information about the unix CRON format for the Db2 administrative task scheduler, refer to https://www.ibm.com/support/knowledgecenter/en/SSEPEK and the administration topics for your version of Db2.

Invalid CRON month

Explanation: The CRON month in the Point in Time field is not valid.

User response: Valid values are:
  - A numeric from 1 to 12
  - A range (two numbers separated with a hyphen, such as 1-3)
  - A list (numbers separated with commas, such as 1,3,5)
  - An asterisk (*), which represents all possible values
  - Upper-, lower-, or mixed-case three-character strings, based on the English name of the month: jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, or dec

For information about the unix CRON format for the Db2 administrative task scheduler, refer to https://www.ibm.com/support/knowledgecenter/en/SSEPEK and the administration topics for your version of Db2.

Invalid CRON day of week

Explanation: The CRON day of the week in the Point in Time field is not valid.

User response: Valid values are:
  - A numeric from 1 to 7
  - A range (two numbers separated with a hyphen, such as 1-3)
  - A list (numbers separated with commas, such as 1,3,5)
  - An asterisk (*), which represents all possible values
  - Upper-, lower-, or mixed-case three-character strings, based on the English name of the day: mon, tue, wed, thu, fri, sat, or sun

For information about the unix CRON format for the Db2 administrative task scheduler, refer to https://www.ibm.com/support/knowledgecenter/en/SSEPEK and the administration topics for your version of Db2.

Invalid CRON character

Explanation: An invalid character was entered in the Point in Time field.

GGCM729E Incomplete CRON definition

**Explanation:** The point in time field is incomplete. The field must be in unix CRON format.

**User response:** The format is:
- `minute`
- `hour`
- `day_of_the_month`
- `month_of_the_year`
- `day_of_the_week`

where:
- `minute` can be 0-59
- `hour` can be 0-23
- `day_of_the_month` can be 1-31
- `month_of_the_year` can be 1-12 or upper-, lower-, or mixed-case three-character strings, based on the English name of the month: jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, or dec
- `day_of_the_week` can be 1-7 or upper-, lower-, or mixed-case three-character strings, based on the English name of the day: mon, tue, wed, thu, fri, sat, or sun

Each field must be separated by a blank. For information about the unix CRON format for the Db2 administrative task scheduler, refer to [https://www.ibm.com/support/knowledgecenter/en/SSEPEK](https://www.ibm.com/support/knowledgecenter/en/SSEPEK) and the administration topics for your version of Db2.

---

GGCM740E Invalid CRON range

**Explanation:** The range entered in the Point in Time field is not in valid CRON format. The range must be two numbers separated with a hyphen, such as 1-3.

**User response:** For information about the unix CRON format for the Db2 administrative task scheduler, refer to [https://www.ibm.com/support/knowledgecenter/en/SSEPEK](https://www.ibm.com/support/knowledgecenter/en/SSEPEK) and the administration topics for your version of Db2.

---

GGCM741E Invalid CRON step

**Explanation:** The step entered in the Point in Time field is not in valid CRON format. Step values can be used in conjunction with ranges.

**User response:** The syntax is:
- `range/step`

This defines the range and an execution interval. If you specify `first-last/step`, execution takes place at `first`, then at all successive values that are distant from `first` by `step`, until `last`. If you specify `*/step`, execution takes place at every interval of `step` through the unrestricted range. For information about the unix CRON format for the Db2 administrative task scheduler, refer to [https://www.ibm.com/support/knowledgecenter/en/SSEPEK](https://www.ibm.com/support/knowledgecenter/en/SSEPEK) and the administration topics for your version of Db2.

---

GGCM742E Invalid subsystem ID entered

**Explanation:** An invalid Db2 subsystem ID was entered.

**User response:** Enter a valid Db2 subsystem.

---

GGCM743E Invalid data set DSORG. Only a sequential file or a PDS/PDSE is allowed

**Explanation:** An invalid data set was entered. The data set organization must be a PDS, a PDSE, or a sequential file.

**User response:** Enter a different data set.

---

GGCM744E JCL Dataset and Procedure are mutually exclusive

**Explanation:** Both a JCL job and a stored procedure were entered in the Execution Source fields.

**User response:** Enter either a JCL job or a stored procedure, not both.

---

GGCM745E If no invocation options are specified, max invocations must be 1

**Explanation:** A value greater than 1 was entered in the Max Invocations field, but an invocations option was not specified.

**User response:** If you want the job or procedure to be invoked more than once, you must specify one of the invocation options (minutes, trigger task, or point in time). Otherwise, enter 1 in the Max Invocations field.

---

GGCM746I Admin Scheduler feature is disabled

**Explanation:** The Db2 Admin Scheduler function is not enabled within Db2 Automation Tool. It must be enabled in the Setup panels before it can be used.

**User response:** Enable the Db2 administrative scheduler interface feature via the Db2 Automation Tool Setup panels.

**Note:** Enabling the feature does not configure the Db2 administrative task scheduler, but allows users to access it via Db2 Automation Tool.

---

GGCM747E Trigger Cond is not valid without Trigger Task

**Explanation:** A trigger condition value was entered but a trigger task was not specified.

**User response:** Either clear the value from the Trigger Cond field or enter a Trigger Task Name.
GGCM748E  Trigger Code is not valid without Trigger Cond
Explanation: A trigger condition code was entered but a trigger condition was not specified.
User response: Either clear the value from the Trigger Code field or enter a trigger condition.

GGCM749E  Interval, Trigger, and Point in Time are mutually exclusive
Explanation: A value was entered in more than one of the Interval, Trigger, or Point in Time fields. Only one of these options can be used to invoke the administrative scheduler task.
User response: Enter the desired invocation options and clear the extraneous fields.

GGCM750E  JCL member cannot be specified without a JCL data set
Explanation: A JCL member name was entered for the Execution Source, but the data set name has not been provided.
User response: Enter the data set name that holds the JCL member.

GGCM751E  PDS member does not exist
Explanation: The JCL member name entered for the Execution Source does not exist.
User response: Correct the member name.

GGCM752I  The following tasks have been scheduled
Explanation: This informational message confirms the task or tasks that have been scheduled.
User response: No action is required.

GGCM754E  Error scheduling job jobname. Hit <PF1> for info
Explanation: An error occurred when attempting to add a task to the Db2 administrative task scheduler. This error lists the job name that encountered the error, and is followed by additional messages returned from the Db2 administrative task scheduler.
User response: Examine the messages returned from the Db2 administrative task scheduler to determine the course of action. Contact IBM Software Support if you require assistance.

GGCM755E  Task not deleted. RC = return_code
Explanation: An error occurred when attempting to delete a task from the Db2 administrative task scheduler. This message lists the return code from the Db2 administrative task scheduler ADMIN_TASK_REMOVE stored procedure.
User response: Examine the return code from the Db2 administrative task scheduler to determine the course of action. Contact IBM Software Support if you require assistance.

GGCM756E  Point in Time is not in unix CRON format
Explanation: The point in time field is not in the unix CRON format. The format is:
minute hour day-of-the-month month-of-the-year
day-of-the-week
where:
• minute can be 0-59
• hour can be 0-23
• day-of-the-month can be 1-31
• month-of-the-year can be 1-12 or upper-, lower-, or mixed-case three-character strings, based on the English name of the month: jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, or dec
• day-of-the-week can be 1-7 or upper-, lower-, or mixed-case three-character strings, based on the English name of the day: mon, tue, wed, thu, fri, sat, or sun
Each field must be separated by a blank.
User response: Enter a valid unix CRON format in the Point in time field.

GGCM757E  Procedure name must be specified if Procedure schema is specified
Explanation: A value was entered in the Procedure Schema field, but the Procedure Name was not provided.
User response: Enter the procedure name.

GGCM758E  Trigger Cond is not valid without Trigger Code
Explanation: A trigger condition was entered, but a trigger condition code was not specified.
User response: Specify a trigger condition code.
GGCM759E  Trigger Task does not exist
Explanation: The trigger task entered in the Task Name field does not exist.
User response: Enter a task from the Db2 Admin Task Scheduler panel that will trigger this task.

GGCM765E  Reserved word WHERE is not valid
Explanation: The word WHERE is a reserved word and may not be used in the Restrict Tablespace field.
User response: Enter the WHERE clause criteria without the restricted word.

GGCM769E  Variable names are not permitted in Trigger Task Name
Explanation: Variables are not allowed for the Trigger Task Name.
User response: Remove all variables from the TriggerTask Name.

GGCM770E  Invalid Op Code. Valid values are GT, LT, GE, LE, EQ.
Explanation: An invalid value was entered in the Op Code field.
User response: Enter a valid value as described in the message text.

GGCM772E  If the Static Job Build Dataset field is specified and Set JCL member equal to jobname is Yes, the static job build member must be blank.
Explanation: The Static Job Build data set field was specified, and Set JCL member equal to jobname is set to Yes. Because the job name will be used for the JCL, the static job build member name must be blank.
User response: Remove the member name from the Static Job Build Dataset member field.

GGCM773E  Invalid value - The Op Code and Return code fields cannot be blank.
Explanation: A valid value must be entered for both Op Code and Return Code.
User response: Enter a valid value in both fields.

GGCM775E  A valid field_name must be selected to receive notifications
Explanation: An invalid value was entered in the field that is listed in the message. This field is required to update notification options.
User response: Correct the invalid field name.

GGCM776E  Invalid Value - Type must be Email or Text
Explanation: An invalid value was entered in the Type field.
User response: Enter E for email notifications or T for text notifications.

GGCM778E  Invalid email address. Enter a valid email address to receive a notification
Explanation: The email address entered was invalid.
User response: Enter a valid email address.

GGCM779I  Profile profile_creator.profile_name has been selected and is now the default notification profile
Explanation: The profile that is listed in the message been selected and is now the default notification profile.
User response: No action is required.

GGCM780E  Only one profile can be selected. Choose one profile and resubmit
Explanation: More than one notification profile was selected as the default notification profile.
User response: Clear the S line command from all profiles except from the notification profile that you want to use as the default.

GGCM781E  Invalid value - Sysout class must be A-Z or 1-9
Explanation: An invalid value was entered for the SYSOUT class.
User response: Enter a valid value as described in the message text.

GGCM782I  Profile profile_creator.profile_name has been selected as the notification profile for this job
Explanation: The profile that is listed in the message been selected and is now the notification profile for this job.
User response: No action is required.

GGCM783I  The selected_type profile has been removed
Explanation: The profile that is listed in the message was removed.
User response: No action is required.
There is no designated \textit{selected\_type} profile to be removed.

\textbf{Explanation:} The REMOVE command was entered, but there is no selected or designated default profile to removed.

\textbf{User response:} No action is required.

\textbf{GGCM787E} Template data set must be a valid, existing, partitioned data set.

\textbf{Explanation:} The data set is invalid or does not exist.

\textbf{User response:} Enter a valid data set name.

\textbf{GGCM788E} When a template \textit{data\_set\_name} \textit{member\_name} is entered, a valid template \textit{data\_set\_name} \textit{member\_name} must also be included.

\textbf{Explanation:} A template data set name was entered but the member name is blank, or a template member name was entered but the data set name is blank.

\textbf{User response:} Enter both the template data set name and a member name.

\textbf{GGCM789I} Template name \textit{template\_name} was successfully selected/removed.

\textbf{Explanation:} A template name was selected or removed from the template selection panel.

\textbf{User response:} No action is required.

\textbf{GGCM790E} When a template data set and member are specified and \textit{function\_or\_type} is selected, a template name must also be included.

\textbf{Explanation:} When a template data set and member name are included, a template name must also be selected.

\textbf{User response:} Select a template name for the function or type displayed in the message text.

\textbf{GGCM791E} \texttt{OUTDDN | LOADDDN} \textit{data\_set\_name} \textit{template\_name} missing for Table Sel Name \textit{table\_name}.

\textbf{Explanation:} A template data set and member name was entered, and Include Select Table and Columns is set to Yes on GGC$HPUO. However, a template name is missing for one of the tables, or a data set name is missing when a template data set and member name are not specified. The table in question is described by the \textit{table\_name} in the message text. This table is defined on panel GGC$HPTB (HPU Table Selection).

\textbf{User response:} On GGC$HPUO, enter Update for Select Table and Columns, then select the table that matches the \textit{table\_name} value to include the missing template name.

\textbf{GGCM792E} Duplicate Template name found. The \textit{type} matches the type for Select \textit{select\_name}. Provide a unique name for each.

\textbf{Explanation:} A template name matches another template name within Db2 HPU.

\textbf{User response:} Select a unique template name for each type.

\textbf{GGCM793E} A valid data set and member name must be included for \textit{utility\_name} before including or selecting a template name.

\textbf{Explanation:} A template data set and member name was not entered before attempting to select or include a template name.

\textbf{User response:} Enter a valid existing template data set and member name for the desired utility before including or selecting a template name.

\textbf{GGCM794E} No template names exist in the specified data set and member.

\textbf{Explanation:} A template data set and member were selected, but no template names exist in the member.

\textbf{User response:} Update the data set member to include the desired template, or specify a different data set or member.

\textbf{GGCM795W} A \textit{type} template name must be included to continue.

\textbf{Explanation:} For UNLOAD and Db2 HPU utilities, some types are required before building JCL.

\textbf{User response:} Enter the required template name as described in the message text.

\textbf{GGCM796W} Since a template name was not included for \textit{type}, the Include and Update fields have been set to “N” for \textit{type}.

\textbf{Explanation:} A valid template name is required for the \textit{type} listed in the message text. Because a valid template name was not included, the Include and Update fields have been set to N for \textit{type}.

\textbf{User response:} No action is required. If you want to include the \textit{type} that is described in the message text, include a template name.
GGCM797W  The include type option was selected and no type template name exists. Select a type template name.

Explanation:  The include type option that is specified in the message is set to Yes, but the template name is blank.

User response:  Select a template name for the type that is described in the message text.

GGCM798W  Since a template name was not included for OUTDDN, the select_name Select Statement has been set to “N”.

Explanation:  A table was selected for Db2 HPU, but upon exit from the HPU Select Format panel, the required OUTDDN template name was blank.

User response:  No action is required. If the table in question must be included, a template name must be selected for OUTDDN.

GGCM799E  Duplicate template name found. The type name matches the type name. Provide a unique name for each.

Explanation:  Duplicate template names were found. For UNLOAD or Db2 HPU utilities, these template names must be unique to avoid errors at run time.

User response:  Enter a unique template name for each type described in the message text.

GGC800I  Entry was successfully deleted

Explanation:  The entry was successfully deleted.

User response:  No action is required.

GGC801I  Entry was successfully created

Explanation:  The entry was successfully created.

User response:  No action is required.

GGC802I  Entry was successfully updated

Explanation:  The entry was successfully updated.

User response:  No action is required.

GGC803E  Invalid value - The pattern is restricted to a single asterisk at the end of the object database | name

Explanation:  A wildcard pattern was specified in the middle of an object database or object name. The pattern is restricted to a single asterisk at the end of the object name.

User response:  Remove the wildcard pattern from the middle of the name.

GGCM810E  Template name required for utility. Enter at least one template name to continue.

Explanation:  A data set and member name were specified, but no template name was included.

User response:  Include at least one template name.

GGCM811E  A local backup template name cannot be selected without a local primary template name.

Explanation:  A local backup template name was selected without first specifying a local primary template name.

User response:  Select a local primary template name.

GGCM812E  A recovery backup template name cannot be selected without a recovery primary template name.

Explanation:  A recovery backup template name was selected without first specifying a recovery primary template name.

User response:  Select a recovery primary template name.

GGCM813E  Invalid template name. The template name does not meet the template naming standards.

Explanation:  A value was entered for template name that is not supported by Db2.

User response:  Correct the template name as described in the help text or in the Db2 utility guide and reference under template-name.

GGCM814E  Only one template can be selected.

Explanation:  More than one template name was selected for the specified type.

User response:  Select only one template name.

GGCM815E  Invalid value. Enter U for Updated, or A for All.

Explanation:  An invalid value was entered in the Scope field.

User response:  Enter a valid value as described in the message text.

GGCM816E  Invalid value. Enter N for No, P for PNMO, M for PMP, or R for PMR.

Explanation:  An invalid value was entered in the FLASHCOPY_PPRCP field.

User response:  Enter a valid value as described in the message text.
Invalid value. The Update alternate copy pool field must be Y - Yes, N - No, or C - Clear.

**Explanation:** An invalid value was entered in the Update alternate copy pool field.

**User response:** Enter a valid value as described in the message text.

If the Object event field is blank, a data set name is required.

**Explanation:** A blank value in the Object event field requires you to supply the data set name to which to recover.

**User response:** Enter a data set name in the Copy data set name field.

Invalid value. Enter Y to rename profile. Enter N or press PF3 to exit

**Explanation:** An invalid value was specified.

**User response:** Enter Y to rename profile; enter N or press PF3 to cancel and exit.

Invalid value. Enter Y to rename profile. Enter N or press PF3 to exit

**Explanation:** An invalid value was specified.

**User response:** Enter Y to rename profile; enter N or press PF3 to exit.

The only valid value is A to Add Objects, Utility or Exception Profiles to the Job profile

**Explanation:** An invalid value was specified.

**User response:** Enter A to add object, utility, or exception profiles to the job profile.

This option is only valid when using a version 10 or higher subsystem

**Explanation:** An invalid value was entered in the field in which the cursor is positioned. Db2 V10 or later is required for the setting you selected.

**User response:** Change the value to a valid value for the Db2 version you are using.

The selected event notification profile for this job has been removed because it does not exist on DB2 subsystem ssid.

**Explanation:** The event notification profile that was selected for this job in job options no longer exists on the Db2 subsystem that is listed in the message. The event notification profile will be removed from the job profile.

**User response:** No action is required.

Invalid value. Valid options are 1, 2 and 3.

**Explanation:** An invalid value was specified in the Option line

**User response:** Enter a valid value of 1, 2, or 3.

Invalid value. Valid options are 1, 2, 3, 4, 5, 6, and 7.

**Explanation:** An invalid value was specified in the Option line.

**User response:** Enter a valid value as described in the message text. Press PF1 for a description of the options.

No recipient has been selected for this event notification profile. Enter line command C to create a recipient.

**Explanation:** At least one recipient is required for each event notification profile.

**User response:** Enter the C line command to create a recipient.

Invalid combination. The Recipient, Sender, and Type can not match other entries.

**Explanation:** The Type, Recipient, and Sender fields must be unique for each entry.

**User response:** Change the entries so they are unique.

No events have been selected for this recipient. Enter line command U | A to add | update events for this recipient.

**Explanation:** At least one event is required for each recipient.

**User response:** Enter the line command that is listed in the message to events for this recipient.

Profile profile_creator:profile_name saved.

**Explanation:** The profile name that is listed in the message was successfully saved.

**User response:** No action is required.

Event has already been selected.

**Explanation:** The event that you selected already has been selected for the recipient.

**User response:** Deselect the event, select a different
event, or press PF3 (END) to cancel.

**GGCM915I** Profile *profile_creator.profile_name* has been selected as the notification profile for this maintenance window.

**Explanation:** The profile that is specified in this message has been assigned to the maintenance window.

**User response:** No action is required.

**GGCM916I** Event has been successfully selected.

**Explanation:** This event has been selected and successfully added to the specified recipient.

**User response:** No action is required.

**GGCM917I** Enter Type E for Email, or T for Text, and include an address for both Recipient and Sender.

**Explanation:** Type must be E for email or T for text. The Recipient field must include the phone number or email address that will be notified of the selected events. The Sender field must include the phone number or email address that will display as the From address in the notification. If the type is Text, a valid mobile phone number must be entered in the following format: 1112233333@carrier.com This system uses an email to SMS messaging format. Either refer to your mobile phone carrier's website for your valid SMS email address, or use an SMTP to SMS gateway.

**User response:** No action is required.

**GGCM918E** A valid Type must be selected to receive notifications. Enter E for Email, or T for Text.

**Explanation:** An invalid value was entered in the Type field. Type cannot be blank and must be E for Email or T for text.

**User response:** Enter a valid value as described in the message text.

**GGCM919I** No description has been defined for this event.

**Explanation:** No description was defined for the selected event.

**User response:** No action is required.

**GGCM920E** If Object event is N (Nosyscopy), a copy data set name is required.

**Explanation:** A value of N (Nosyscopy) in the Object event field requires that you enter a data set from which to recover.

**User response:** Enter a data set name in the Copy data set name field.

**GGCM921E** Object event = N (Nosyscopy) not supported for DB2 version less than V12.

**Explanation:** A value of N in the Object event field is not supported in Db2 versions earlier than V12.

**User response:** Choose a different value.

**GGCM922I** Nosyscopy type not supported for DB2 version less than V12. Value cleared.

**Explanation:** Nosyscopy type is not supported until Db2 V12.

**User response:** No action is required. The value is cleared.

**GGCM923E** Nonblank Nosyscopy type only allowed when Object event is N.

**Explanation:** Nosyscopy type is only supported when the Object event field is set to N (Nosyscopy).

**User response:** Clear the Nosyscopy type field, or change the Object event field to N.

**GGCM926I** No performance windows were found. Press Enter to create a performance window.

**Explanation:** No performance windows were found that match the specified filter.

**User response:** Either change the filtering options, or press Enter to create a new performance window.

**GGCM940E** The specified data set could not be found in the MVS catalog.

**Explanation:** The data set could not be located in the MVS catalog.

**User response:** Verify that you specified the correct data set.

**GGCM951E** Invalid Value - Please select a valid value from the list provided or press PF1 for more information

**Explanation:** One or more invalid values was entered in the DISP fields. The DISP parameters include the following options:

- Status: M - Modify; N - New; O - Old; S - Share
- Normal Termination: C - Catalog; D - Delete; K - Keep; U - Uncatalog
- Abnormal Termination: C - Catalog; D - Delete; K - Keep; U - Uncatalog
**User response:** Enter valid parameters for all three DISP fields, or clear all three fields.

**GGCM952E** Invalid Option - Backout Yes is only valid when LOG RBA LRSN is specified

**Explanation:** The Backout keyword was set to Yes but the LOG RBA/LRSN field has been left blank.

**User response:** Specify a value for LOG RBA/LRSN before selecting Backout Yes.

**GGCM954E** An error occurred while executing advanced SQL. Ensure that the syntax is correct and resubmit.

**Explanation:** An error occurred while executing the advanced SQL statement.

**User response:** Ensure that the SQL syntax is correct and resubmit.

**FEC messages**

Use the information in these messages to help you diagnose and solve Db2 Change Accumulation Tool problems.

**FECA900E** Invalid Column Function value. Valid values: 1, 2, 3, 4

**Explanation:** An invalid character was entered in the Column Function field.

**User response:** Specify a valid character (1, 2, 3, or 4).

**FECA901E** Invalid Permanent View value. Valid values: Y, N

**Explanation:** An invalid value was entered in the Permanent View field.

**User response:** Correct the value or cancel. Valid values are Y and N.

**FECA902E** Invalid Reset View value. Valid values are Y, N

**Explanation:** An invalid character was entered in the Reset View field. Valid characters are Y and N.

**User response:** Specify a valid value or cancel. Valid values are:

- Y - resets all customizations.
- N - customizations are not reset.

**FECA903E** Invalid Stop Sorting value. Valid values: Y, N

**Explanation:** The specified stop sorting value is not valid. Valid values are:

- Y - Indicates that sorting will be stopped.
- N - Indicates that sorting will continue.

**User response:** Specify a valid value or cancel.

**FECA904E** Invalid command in FORM display

**Explanation:** The command you issued when viewing the FORM display was not valid.

**User response:** Valid commands for FORM display include NROW and PROW.

**FECA905E** FORM command not supported from CSETUP function

**Explanation:** The FORM command was issued from a CSETUP function. FORM is not supported while in a CSETUP function (CSETUP functions include CFIX, CORDER, CSIZE and CS).

**User response:** No action is required.

**FECA906E** Invalid parameter for NROW. Must be numeric.

**Explanation:** The parameter you specified was not numeric and is therefore invalid.

**User response:** Specify a numeric value corresponding to the number of rows to advance. The default value for NROW is 1.

**FECA907E** Invalid parameter for PROW. Must be numeric.

**Explanation:** The parameter you specified was not numeric and is therefore invalid.

**User response:** Specify a numeric value corresponding to the number of rows to scroll back. The default value for PROW is 1.

**FECA908E** Invalid parameter for NROW. Too many digits.

**Explanation:** An invalid parameter for the NROW keyword was specified. More than eight digits were specified. Parsing stops at eight digits.

**User response:** A parameter of NROW must be between 1 and the number of rows in the current report display. If no parameter is specified, 1 is assumed.

**FECA909E** Invalid parameter for PROW. Too many digits.

**Explanation:** Invalid parameter to PROW specified.
More than eight digits were specified. Parsing stops at eight digits.

**User response:** A parameter of PROW must be between 1 and the number of rows in the current report display. If no parameter is specified, 1 is assumed.

---

**FECA910E** CSETUP command not supported from FORM function

**Explanation:** CSETUP functions are not supported while in the FORM display. CSETUP functions include CFIX, CORDER, CSIZE, CSORT, and CSETUP (CSET).

**User response:** Exit the current FORM function before issuing a CSETUP function.

---

**FECA911E** Invalid ICR command. Use RIGHT command.

**Explanation:** ICR is only valid with columns that are not their maximum size. You can see the column's current and maximum sizes by issuing CSIZE.

**User response:** RIGHT and LEFT commands can be used to see all parts of this column.

---

**FECA912E** Invalid ICL command. Use LEFT command.

**Explanation:** ICL is only allowed with columns that are not their maximum size. You can see the column's current and maximum sizes by issuing CSIZE.

**User response:** RIGHT and LEFT commands can be used to see all parts of this column.

---

**FECA913E** Format mix data element not updated.

**Explanation:** Format MIX data cannot be updated when only part of the data is displayed.

**User response:** No action is required.

---

**FECA914E** FORM command not supported from FORM function

**Explanation:** FORM was issued from within a FORM display. This is not supported.

**User response:** No action is required.

---

**FECA915E** FORM PF keys set; NROW = nrow PROW = prow

**Explanation:** The NROW (next row) and PROW (previous row) commands are used to move the FORM display window to another row. The UP, DOWN, LEFT, and RIGHT commands move the FORM display window within the current row.

Row, as mentioned above, refers to the row from the original report display, not any reformatted FORM display row.

By default, NROW advances the FORM display to the next row. If NROW n is issued, the FORM display will advance n rows.

Similarly, PROW moves the FORM display window to the immediately prior row PROW n moves the current FORM display window to the nth prior row.

**User response:** No action is required.

---

**FECA916E** Invalid CNUM parm. Valid parms are ON, OFF, or blank.

**Explanation:** CNUM was issued with an invalid parameter. Issuing CNUM with no parameter acts as an ON/OFF toggle. ON and OFF are the only parameters accepted. ON turns the CNUM display on. OFF turns the CNUM display off.

**User response:** Use a valid CNUM parameter (ON, OFF, or blank)

---

**FECA917E** Report width for print too large.

**Explanation:** The report width exceeds the maximum print width.

**User response:** The maximum report width that is currently supported is 32,760.

---

**FECA918E** string not found. Press PF5 to continue from top.

**Explanation:** The indicated character string was not found.

**User response:** To continue searching for the character string from the top of the dialog, press PF5.

---

**FECA920I** Chars chars found n times

**Explanation:** Indicates the number of times the specified character was found.

**User response:** No action is required.

---

**FECA921I** Chars chars not found on any lines

**Explanation:** Indicates that the specified characters were not found on any of the lines.

**User response:** No action is required.

---

**FECA922I** Search for CHARS chars was successful.

**Explanation:** Indicates the search for the indicated characters produced matches.

**User response:** No action is required.
FECA923E  Check for misspelled keywords or embedded blanks in search string.

Explanation: Indicates there may be invalid keywords or blanks embedded within the search string.

User response: Verify and correct the search string to remove embedded blanks or to correct keywords.

FECA924E  string and string cannot both be specified for FIND command.

Explanation: You specified two strings for the FIND command.

User response: You must specify one FIND string at a time.

FECA925E  Put quotes (" ") around the string of characters to be displayed.

Explanation: The string of characters is not enclosed in quotes.

User response: Place the string of characters in side quotes.

FECA926E  Maximum parameter length is 80

Explanation: The parameter you specified is too long.

User response: Specify a parameter that is 80 characters or less.

FECA927E  Invalid COLS parm. Valid parms are ON, OFF, or blank

Explanation: COLS was issued with an invalid parameter. Issuing COLS with no parameters acts as an ON/OFF toggle. ON and OFF are the only parameters accepted.

User response: Enter COLS ON or COLS OFF. COLS ON turns the COLS display on; COLS OFF turns the COLS display off.

FECA930I  No columns eligible for resizing.

Explanation: You cannot resize any columns.

User response: No action is required.

FECA931I  No columns eligible for sorting

Explanation: You cannot sort any columns.

User response: No action is required.

FECA932I  TBMOD failed. RC=rc

Explanation: An unexpected return code occurred during TBMOD.

User response: Suggested diagnostics:

FECA933E  Invalid column name: missing quote

Explanation: SORT or CSORT was issued with a parameter that had an initial quotation character, but not a second closing quotation character.

User response: Either clear the command line and select the desired sort column(s) from the displayed selection list or correct the command on the command line.

FECA934E  More than 9 columns specified

Explanation: SORT or CSORT was issued with too many columns specified as sort columns. A maximum of 9 sort columns can be specified.

User response: Either clear the command line and select the desired sort column(s) from the displayed selection list or correct the command on the command line.

FECA935E  Invalid column name

Explanation: SORT or CSORT was issued with a column parameter that does not match any column name. A list of the correct column names is seen in the SORT selection panel.

User response: Either clear the command line and select the desired sort column(s) from the displayed selection list or correct the command on the command line.

FECA936E  Invalid row selection character

Explanation: An invalid selection character was entered in the SSID selection list. The only valid selection character is S. Alternatively, place the cursor on the desired line and press ENTER (without a line selection character).

User response: Clear the invalid character.

FECA937E  Only one row selection allowed

Explanation: More than one SSID was selected from the SSID selection list. A maximum of one SSID can be selected.

User response: Clear all, or all but one row selection character.
### FECA938E • FECA940E

**FECA938E** Invalid command

**Explanation:** An invalid command was entered on the SSID selection list panel.

**User response:** Clear the command.

**FECA939E** Read of control file failed

**Explanation:** Reading the control data set failed.

**User response:** Check the product setup (accessed from the main menu) to view the control data set currently in use. Verify that the data set name is correct.

**FECA940E** Invalid DB2 Control data set

**Explanation:** Allocation of the control data set failed.

**User response:** Check the product setup (accessed from the main menu) to view the control data set currently in use. Verify that the data set name is correct.

### FECA942E • FECA943E

#### FECA942E

**IFCARC1 = return code IFCARC2 = reason code**

**Explanation:** The Db2 command issued failed. The return code and reason code received from Db2 are in the error message. If there is any command output, it is displayed.

**User response:** Check the command for possible mistyping, invalid syntax, or other errors. Refer to [https://www.ibm.com/support/knowledgecenter/en/SSLEPEK](https://www.ibm.com/support/knowledgecenter/en/SSLEPEK) for information about the messages and codes for your version of Db2.

#### FECA943E

**Invalid command**

**Explanation:** An invalid command was issued. It is not supported on the current panel.

**User response:** Check the command for typographical error. Clear or correct the command.

### FECA944E • FECA945E

#### FECA944E

**Empty History**

**Explanation:** This is an informational message. The history database is empty. If commands were previously entered, then either HCLEAR was issued or the size of the history database was set to 0. If ISPTABL and ISPTLIB are not allocated, history is not remembered across sessions, and each new session has an empty history database.

**User response:** No action is required. To verify allocation of ISPTLIB and ISPTABL, ISRDDN and ISPLIBD can be useful. Refer to [https://www.ibm.com/support/knowledgecenter/en/SSLTBW](https://www.ibm.com/support/knowledgecenter/en/SSLTBW) to access the ISPF services guide for your version of z/OS.

#### FECA945E

**Invalid history size limit**

**Explanation:** An invalid character was found in the History Size Limit field. Only numeric values from 0-999 are valid.

**User response:** Enter a valid value in the History Size Limit field.

### FECA946I • FECA947I

#### FECA946I

**No DB2 command history output library allocated**

**Explanation:** This is an informational message. ISPTABL is not allocated. The history database cannot be saved across sessions when ISPTABL is not allocated.

**User response:** No action is required. If saving history across sessions is desired, see product installation instructions for allocating ISPTABL (and ISPTLIB).

#### FECA947I

**No DB2 command history input library allocated**

**Explanation:** This is an informational message. ISPTLIB is not allocated. If a history database is saved across sessions (using ISPTABL DD), the ISPTLIB DD is used to initialize a new Db2 Command Processor session. If ISPTLIB is not allocated, this cannot occur and the history starts out empty.

**User response:** No action is required. If saving history across sessions is desired, see product installation instructions for allocating ISPTLIB (and ISPTABL).

### FECA948E • FECA949E

#### FECA948E

**TBOPEN failed. RC = return code**

**Explanation:** TBOPEN for the history table failed. return code is the return code from the TBOPEN service.

**User response:** Check ISPTLIB allocation. Verify the data sets in ISPTLIB. Verify it is a valid PDS. See ISPF manuals for ISPTLIB requirements.

#### FECA949E

**Invalid command**

**Explanation:** An invalid command was entered.

**User response:** Check for typographical error. Clear or correct the command. Issue [HELP](https://www.ibm.com/support/knowledgecenter/en/SSLTBW) for the Db2 Command Processor tutorial to see what commands are valid. [KEYS](https://www.ibm.com/support/knowledgecenter/en/SSLTBW) might also be a useful command, since some PF keys are set to valid Db2 Command Processor commands.

### FECA950E

**No SSIDs in control file**

**Explanation:** There are no valid SSIDs found in the Db2 control file specified.

**User response:** A control file with no SSIDs is not useful. It is probably not the control file desired. See product installation instructions for information about
creating and building a control file.

<table>
<thead>
<tr>
<th>FECA951I</th>
<th>History cleared</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>History was cleared either by issuing the HCLEAR command or by setting the History Size Limit to 0.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>No action is required.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA952E</th>
<th>Unable to list data sharing members. Display failed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>Command failed attempting to get a list of data sharing members. The reason code and return code are listed in the message.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA953I</th>
<th>Zero data sharing members found</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>Zero data sharing members found. The current SSID is not a member of a data sharing group.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>The Datasharing Member field should be left blank.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA954E</th>
<th>Invalid command</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An invalid command was issued from the datasharing members list/selection panel.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Clear the command.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA955I</th>
<th>No member selected</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>You exited the datasharing member selection panel without selecting a datasharing member.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>No action is required.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA956E</th>
<th>Invalid row selection character</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An invalid selection character was entered in the History output display. A command listed in the History display can be selected for execution either by selecting it with an &quot;S&quot; selection character, or by placing the cursor anywhere on a line within the command and pressing Enter. When selecting by cursor placement, the cursor can be on the line selection input line, which also has a command number, or on a line with some command text.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Clear the invalid character.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA957E</th>
<th>Only one row selection allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>More than one command was selected from the History display. Only one History command can be selected.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Clear all, or all but one row selection character.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA958E</th>
<th>Invalid row selection character</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An invalid selection character was entered in the displayed list of datasharing members. A datasharing member in this display can be selected by selecting it with an S selection character, or by placing the cursor anywhere on the desired row and pressing Enter.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Clear the invalid character.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA959E</th>
<th>Only one row selection allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>More than one datasharing member was selected from the list of displayed datasharing members.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Clear all, or all but one row selection character.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA960E</th>
<th>Cannot list commands without SSID</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>A command was issued to select a command syntax diagram, but no SSID has been selected. Syntax diagrams cannot be displayed until an SSID has been selected.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Select an SSID. You can generate a list of SSIDs by clearing the SSID field, or entering a ? (question mark).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA961E</th>
<th>Invalid row selection character</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>An invalid selection character was entered in the displayed list of Db2 commands. A Db2 command in this display can be selected by selecting it with an S selection character, or by placing the cursor anywhere on the desired row and pressing Enter.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Clear the invalid character.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FECA962E</th>
<th>Only one row selection allowed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Explanation:</strong></td>
<td>More than one Db2 command was selected from the list of displayed Db2 commands.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Clear all, or all but one row selection character.</td>
</tr>
</tbody>
</table>
FECA963E • FEC907E

FECA963E  Invalid command
Explanation:  An invalid command was issued from the Db2 command list/selection panel.
User response:  Clear the command.

FEC801E  Pgm: program name Stmt: statement Type: type
Explanation:  This message is used to convert SQL return code information into a text message. The data from the SQLCA is called using DSNTIAR and formatted into this message.

FEC802E  An invalid return code of code was encountered on function function. The error message text follows: text
Explanation:  An invalid return code was encountered for the specified function. The supporting diagnostic data are returned in the error message.

FEC803E  The first character of the command is not a dash. Correct the syntax of the DB2 command and resubmit.
Explanation:  The first character of the command is not a dash. Correct syntax for a Db2 command dictates that the command be preceded by a dash.
User response:  Precede the command with a dash ('-') and reenter.

FEC804E  message_text
Explanation:  An error occurred during call attach initialization.
User response:  Refer to the message text for details. If a reason code accompanies the message, use the reason code to help you determine the appropriate corrective action. If you need assistance, contact IBM Software Support.

FEC901E  The default load library could not be located.
Explanation:  The data set name entered for Db2 Tools Load Library was not found.
User response:  Enter a valid loadlib data set name and continue.

FEC902E  A DB2 subsystem ID has to be entered for processing.
Explanation:  There was no valid value entered for Db2 subsystem ID.
User response:  Enter a valid Db2 subsystem name.

FEC903E  The default GDG base data set name could not be located.
Explanation:  The data set name entered for GDG Base model was not found.
User response:  Enter a valid model data set name and continue.

FEC904E  The specified data set could not be opened for I/O.
Explanation:  A VSAM open error occurred while attempting to open the data set specified for the Db2 Control File.
User response:  Verify that the VSAM data set is accessible.

FEC905E  An unexpected return code from VSAM was encountered while doing a read of the control file. RC1=rc RC2=rc
Explanation:  A VSAM READ error occurred while attempting to access the data set specified for the Db2 Control File. The VSAM return code is provided for diagnostic purposes.

FEC906I  The control file record for DB2 subsystem ssid has been successfully updated.
Explanation:  The Db2 Control File record has been successfully updated based on the definitions for the specified Db2 subsystem.
User response:  No action is required.

FEC907E  An unexpected return code from VSAM was encountered while doing an update operation of the control file. RC1=rc RC2=rc
Explanation:  A VSAM update error occurred while attempting to update the data set specified for the Db2 Control File. The RC1 and RC2 (VSAM return cards) are provided for diagnostic purposes.
<table>
<thead>
<tr>
<th>Code</th>
<th>Message</th>
<th>Explanation</th>
<th>User Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEC908I</td>
<td>The control file record for DB2 subsystem <code>sys</code> has been successfully added.</td>
<td>The Db2 Control File record has been successfully updated based on the definitions for the specified Db2 subsystem.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>FEC909E</td>
<td>Invalid value. Valid options are 1 and 2.</td>
<td>The value you specified is not valid. valid values are 1 and 2.</td>
<td>Enter a valid value.</td>
</tr>
<tr>
<td>FEC910E</td>
<td>An unexpected return code from VSAM was encountered while doing an add operation to the control file. RC1=rc RC2=rc</td>
<td>A VSAM error occurred while attempting to perform an add operation to the specified Db2 Control File. The RC1 and RC2 (VSAM return codes) are provided for diagnostic purposes.</td>
<td>Refer to <a href="https://www.ibm.com/support/knowledgcenter/en/SSEPEK">https://www.ibm.com/support/knowledgcenter/en/SSEPEK</a> for information about the messages and codes for your version of Db2.</td>
</tr>
<tr>
<td>FEC911E</td>
<td>The (F)IND command was entered but no parameters were specified.</td>
<td>No parameters were specified with the (F)IND command. No match can be made unless you specify a string to find.</td>
<td>Enter a FIND parameter.</td>
</tr>
<tr>
<td>FEC912I</td>
<td>The requested find string was not found.</td>
<td>No matches were found for the string you specified with the FIND command.</td>
<td>To continue searching for the character string from the top of the dialog, press PF5.</td>
</tr>
<tr>
<td>FEC913I</td>
<td>The control file record has been successfully updated.</td>
<td>The control file was updated successfully.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>FEC914E</td>
<td>An unknown column was specified using the SORT command.</td>
<td>The column you specified with the SORT command is not known.</td>
<td>Verify that you correctly typed the name of the column or select another column.</td>
</tr>
<tr>
<td>FEC915E</td>
<td>SORT is not supported for the specified column.</td>
<td>The column you attempted to SORT is not supported as a column on which to sort.</td>
<td>Refer to the sort columns listed on the Define Sort Columns panel for a list of valid columns on which the sort can be based and redefine the sort.</td>
</tr>
<tr>
<td>FEC916E</td>
<td>Sort column not entered. Column name or number must be specified.</td>
<td>A column was not specified with the SORT. A column name or number must be specified for the SORT command.</td>
<td>Ensure that if the column name is used, that all spaces in the name are replaced with an underscore.</td>
</tr>
<tr>
<td>FEC917E</td>
<td>Put an ending quote at the end of the string.</td>
<td>You must place a quote at the end of the string.</td>
<td>Place a quote at the end of the string.</td>
</tr>
<tr>
<td>FEC918</td>
<td><code>CHARS string</code> not found. Press PF5 to continue from top.</td>
<td>The indicated character string was not found.</td>
<td>To continue searching for the character string from the top of the dialog, press PF5.</td>
</tr>
<tr>
<td>FEC919</td>
<td><code>chars foundstr</code> not found. Press PF5 to continue from bottom.</td>
<td>The indicated character string was not found.</td>
<td>To continue searching for the character string from the bottom of the dialog, press PF5.</td>
</tr>
<tr>
<td>FEC920E</td>
<td>File tailoring open returned a file tailoring already in progress condition</td>
<td>An attempt to perform file tailoring for utility customization failed. There was a file tailoring session already in progress. File tailoring sessions cannot be performed concurrently.</td>
<td>No action is required.</td>
</tr>
<tr>
<td>FEC921E</td>
<td>File tailoring open returned the output file already in use condition -- ENQ failed</td>
<td>An attempt to open the Db2 Control File</td>
<td>No action is required.</td>
</tr>
</tbody>
</table>
failed with an ENQ error. The data set is already open for output.

User response: Verify that you are the only user attempting to access this file.

FEC922E File tailoring open returned the skeletal file or output file not allocated condition

Explanation: An attempt to perform file tailoring failed because either the tailoring skeleton file or output file is not allocated.

User response: Verify that all required files are allocated prior to performing file tailoring.

FEC923E File tailoring open returned a severe error condition

Explanation: An attempt to perform file tailoring failed because a severe error condition was encountered on open.

User response: Verify that all required files are allocated and accessible prior to performing file tailoring.

FEC924E File tailoring open returned an unknown code -- severe error

Explanation: An attempt to perform file tailoring failed because a severe error condition was encountered on open.

User response: Verify that all required files are allocated and accessible prior to performing file tailoring.

FEC925E File tailoring close returned a file not open condition -- severe error

Explanation: An attempt to perform file tailoring failed because the close process could not replace the pre-existing tailored member in the output file.

User response: Change the output member name to a new name or ensure that the output library allows for member replacement.

FEC926E File tailoring close returned an output file in use condition

Explanation: An attempt to perform file tailoring failed because an Output-File-In-Use condition was encountered on close.

User response: Verify that all required files are allocated and accessible and that there are no other tailoring sessions running concurrently with your session.

FEC927E File tailoring close returned a skeletal file or output file not allocated condition

Explanation: An attempt to close file tailoring failed because either a tailoring skeleton file or output file was not allocated.

User response: Verify that all required files are allocated and accessible and that there are no other tailoring sessions running concurrently with your session.

FEC928E File tailoring close returned a severe error

Explanation: An attempt to perform file tailoring failed because a severe error condition was encountered on close.

User response: Verify that all required files are allocated and accessible prior to performing file tailoring.

FEC929E File tailoring close returned an unknown code -- severe error

Explanation: An attempt to perform file tailoring failed because a severe error condition was encountered on close.

User response: Verify that all required files are allocated and accessible prior to performing file tailoring.

FEC930E File tailoring close returned an output member exists in the output library and NOREPL was specified

Explanation: An attempt to perform file tailoring failed because the close process could not replace the pre-existing tailored member in the output file.

User response: Change the output member name to a new name or ensure that the output library allows for member replacement.

FEC931E File tailoring include returned a skeleton does not exist condition

Explanation: An attempt to perform file tailoring failed because the tailoring process could not locate a required tailoring skeleton.

User response: Assure that all required files are allocated to perform file tailoring.

FEC932E File tailoring include returned a skeleton in use -- ENQ failed condition

Explanation: An attempt to access a tailoring skeleton failed with an ENQ error (member-in-use).
User response: Verify that all required tailoring files are allocated and that there are no other tailoring sessions running concurrently.

FEC933E File tailoring include returned a data truncation or skeleton library or output file not allocated condition
Explanation: An attempt to perform file tailoring failed because either the tailoring skeleton file or output file is not allocated.
User response: Verify that all required files are allocated prior to performing file tailoring.

FEC934E File tailoring include returned a severe error condition
Explanation: An attempt to perform file tailoring failed because a severe error condition was encountered on an include operation.
User response: Verify that all required files are allocated and accessible prior to performing file tailoring.

FEC935E File tailoring include returned an unknown condition -- severe error
Explanation: An attempt to perform file tailoring failed because a severe error condition was encountered on an include operation.
User response: Verify that all required files are allocated and accessible prior to performing file tailoring.

FEC936E Allocation error - The ISPFILE DD is already allocated and cannot be deallocated - Process not completed
Explanation: The ISPFILE DD allocation failed. The DD is already allocated and cannot be deallocated for this TSO session. The process did not complete successfully.
User response: No action is required.

FEC937E Allocation Error - An error was encountered allocating the ISPWRK1 or ISPWRK2 DD - Process not completed
Explanation: The ISPWRK1 or ISPWRK2 DD allocation failed.
User response: Verify TSO session parameters are set correctly for your site prior to allocation of these DD statements. The process did not complete successfully.

FEC938E Field Required - The data set entered is a partitioned data set and the member name is required
Explanation: A required field was not specified. The data set entered is a PDS (partitioned data set) and a member in this PDS must be referenced.
User response: Enter a valid member name for PDS access.

FEC939E The only valid values are "T" for tracks and "C" for cylinders
Explanation: You specified an invalid value. The only valid values are "T" for tracks and "C" for cylinders
User response: Specify a valid value.

FEC940E The specified data set could not be found in the MVS catalog.
Explanation: The specified data set could not be found in the MVS catalog.
User response: Ensure that the data set name is correct.

FEC941E The RFIND key works only after a FIND character string is entered.
Explanation: A repeat FIND (RFIND) was issued before a FIND command was issued. You must issue FIND before RFIND will work.
User response: Issue FIND prior to attempting to issue RFIND.

FEC942E Invalid Sort number. Enter a valid digit.
Explanation: An invalid character was entered in the Srt column. Valid characters are the digits 1, 2, 3,... up to 9, or the number of sortable columns, whichever is less.
User response: Specify a valid sort number.

FEC943E Same Sort number entered twice
Explanation: The same sort number was entered for more than one column. The screen is positioned to the second instance. Sort sequence numbers must be unique.
User response: Specify a valid sort number.

FEC944E Sort sequence skips a number.
Explanation: The selected sorting sequence skips a number. This is not allowed. The screen is positioned to a selection whose number is lacking an immediate predecessor. The sort sequence is completely rebuilt from the Cmd (and Dir) information. Any previously
existing sort sequence is entirely replaced. It is not added to or extended by the new entries.

User response: Please specify a valid sort sequence that does not skip a number.

---

**FEC945E** Invalid Dir entered. Must be A or D (ascending/descending).

**Explanation:** The selected sorting direction is invalid. Only A (ascending) or D (descending) can be specified. A blank indicates ascending (default).

User response: Specify a valid sorting direction.

---

**FEC946E** Dir not valid without Ord.

**Explanation:** A sorting direction was selected for a column that was not selected to be sorted. Sorting direction is only a valid choice for selected columns.

User response: Select a sorting direction and order.

---

**FEC947E** Max Sort Columns exceeded. Sorting first 10 columns.

**Explanation:** More columns were selected for sorting than are supported. Nine columns can be selected. Under certain circumstances the limit is less than nine, due to internal constraints. For example, sorting a date field can be implemented by three sorts of partial column fields. In that case, the column would count as three toward the maximum of nine, not one.

User response: Specify the appropriate allowable maximum number of sort columns.

---

**FEC948E** Fix Columns cannot exceed screen size.

**Explanation:** More columns were selected to be fixed than will fit on the screen.

User response: Remove the (F) selection character from one or more columns.

---

**FEC950E** Invalid selection character. "F" and "U" are valid.

**Explanation:** An invalid Cmd character was entered. Valid characters are F (fix) and U (unfix). Fix causes the column to move to the fixed area on the left side of the screen. Fixed columns do not scroll horizontally when LEFT or RIGHT scrolling commands are issued. Unfix moves the column out of the fixed area, and allows it to scroll horizontally when LEFT and RIGHT scroll commands are issued.

User response: Either remove the invalid character or enter a valid one.

---

**FEC951E** Invalid entry. Must be numeric.

**Explanation:** An invalid Cmd value was entered. Cmd values must be numeric. If the column is fixed, the number must be in the fixed range. If the column is not fixed, the number must be in the unfixed range.

User response: Either remove the invalid number or enter a valid one.

---

**FEC952E** Invalid entry for fixed column.

**Explanation:** An invalid Cmd value was entered for a fixed column. Valid selections for fixed column are up to the number of fixed columns.

User response: Either remove the invalid number or enter a valid one.

---

**FEC953E** Invalid entry for unfixed column.

**Explanation:** An invalid Cmd value was entered for an unfixed column. The number must be less than the number of columns, and greater than the number of fixed columns.

User response: Either remove the invalid number or enter a valid one.

---

**FEC954E** Invalid value entered for column size: non-numeric data.

**Explanation:** An invalid Cmd value was entered. This must be a number between the values in the MIN and MAX fields.

User response: Either remove the invalid number or enter a valid one.

---

**FEC955E** Invalid value entered for column size: out of range.

**Explanation:** An invalid Cmd value was entered. This must be a number between the values in the MIN and MAX fields. MIN is the smallest acceptable value. MAX is the largest acceptable value.

User response: Either remove the invalid number or enter a valid one.

---

**FEC956E** Total fixed column sizes cannot exceed screen size.

**Explanation:** The Cmd values entered would result in the sum of the fixed column sizes to exceed the screen size. This is not allowed. The fixed columns are those with an or in the Fix column. Fixed columns are always displayed, and so must fit on the screen.

User response: Either change the fixed column sizes so that the total is less than the screen size or cancel to return to the previous panel.
FEC957E New configuration makes this column size invalid.

**Explanation:** The requested column sizes make at least one unfixed column unable to be displayed. The cursor is positioned on the value where the problem was detected. The unfixed area on the screen would be too small to show the column where the cursor is placed.

**User response:** Do one of the following:
- Make the column where the cursor is smaller so that it can fit in the available unfixed area.
- Set it to its maximum size (width).
- Make the fixed area smaller.
- Cancel to return to the previous panel.

FEC958E Column does not fit in unfixed area in new configuration.

**Explanation:** The requested column sizes would make the unfixed column where the cursor is positioned undisplayable. The unfixed area on the screen would be too small to show this column.

**User response:** Shrink the fixed area by either unfixing columns or making fixed columns smaller. The column where the cursor is cannot be partially displayed (min-max) so its size cannot be changed.

FEC959E New configuration makes this column size invalid.

**Explanation:** Fixing the requested columns would shrink the available area for unfixed columns unacceptably. One or more unfixed columns would not fit in the remaining unfixed area of the screen. The cursor is placed on a row that represents one such column. Therefore, the requested configuration is not allowed.

**User response:** To change column sizes, cancel out of the CFIX function and invoke the CSIZE function. Either cancel to exit CFIX with no change or blank out one or more FIX selections until an allowable fixed size is reached.

FEC960E Invalid fixed selections. Would not leave enough space for this column.

**Explanation:** Fixing the columns requested would make at least one unfixed column undisplayable. The cursor is positioned on the row that represents one such unfixed column, whose minimum displayable size would not fit in the available screen area.

**User response:** Shrink the requested fixed area by either:
- Requesting fewer fixed columns.
- Unfixing one or more fixed columns.

FEC962E Duplicate Cmd values entered.

**Explanation:** Duplicate Cmd numbers were entered. The cursor points to the second instance of a Cmd value.

**User response:** Either change this value, clear it, or exit the CORDER function.

FEC963E Cursor not on data element.

**Explanation:** CEXPAND was issued and the cursor was not located on a valid (expandable) area. CEXPAND requires the cursor to be positioned on a data element (non-heading area) in the dynamic area of the display. Or CEXPAND can be issued specifying the row and column of the data element to expand.

**User response:** Ensure the cursor is located on a valid (expandable) area prior to issuing the CEXPAND command.

FEC964E Invalid scroll amount for CRIGHT. Must be numeric.

**Explanation:** Invalid (non-numeric) parameter to CRIGHT specified. CRIGHT accepts one numeric parameter: the number of columns to scroll right. If no parameter is entered a value of 1 is assumed.

**User response:** Specify a numeric parameter to the CRIGHT command.

FEC965E Invalid scroll amount for CLEFT. Must be numeric.

**Explanation:** Invalid (non-numeric) parameter to CLEFT specified. CLEFT accepts one numeric parameter: the number of columns to scroll left. If no parameter is entered, a value of 1 is assumed.

**User response:** Specify a numeric parameter to the CLEFT command.

FEC966E Invalid parameter to ICRIGHT; must be numeric.

**Explanation:** A parameter to ICRIGHT is not numeric. ICRIGHT (inner column scroll right) accepts either zero, one, or two numeric parameters. ICRIGHT can be abbreviated as ICR.

**User response:** Specify a valid, numeric parameter for ICRIGHT.
Parameter to ICRIGHT too long. Invalid.

Explanation: A parameter to ICRIGHT is too long. ICRIGHT does not process more than eight digits in a parameter, which is more than double any reasonable value.

User response: Specify a valid parameter for ICRIGHT.

Parameter to ICRIGHT is zero. Invalid.

Explanation: A parameter to ICRIGHT has the value zero. This is not supported.

User response: Specify non-zero parameters to ICRIGHT.

ICRIGHT: unspecified column.

Explanation: ICRIGHT was invoked with no parameters and the cursor is not positioned in the dynamic panel area.

User response: Either put the cursor in the column that should be scrolled or specify the column by number. Column numbers can refer to visible columns (in the current display window) only. Numbering starts at 1 on the left side.

ICLEFT: Column number specified is too big.

Explanation: A column number parameter to ICLEFT must be between 1 and the number of columns currently on the display screen.

User response: To refer to a column by number you must first position the display window so that the desired column is visible.

Invalid column number specified for SORT (not numeric).

Explanation: Invalid column number parameter to CSORT specified (non-numeric).

User response: Specify a column number parameter to CSORT that is between 1 and the number of columns currently on the display screen. This can be followed by a direction value A or D (ascending/descending).

Invalid column number specified. Too many digits.

Explanation: Invalid parameter to CSORT specified. More than eight digits were specified. Parsing stops at eight digits.

User response: Specify a column number parameter between 1 and the number of columns currently on the display screen. This can be followed by a direction value A or D (ascending/descending).
### FEC980E
Invalid column number specified: zero.

**Explanation:** Invalid parameter to CSORT was specified (zero).

**User response:** Specify a column number parameter to CSORT that is between 1 and the number of columns currently on the display screen. This can be followed by a direction value A or D (ascending/descending).

### FEC981E
Invalid column number specified: out of range.

**Explanation:** Invalid parameter to CSORT was specified (zero).

**User response:** Specify a column number parameter to CSORT that is between 1 and the number of columns currently on the display screen. This can be followed by a direction value A or D (ascending/descending).

### FEC982E
Invalid view. View adjusted.

**Explanation:** The current view was adjusted but not deleted. The saved view did not match the report requirements. This could be caused by the report changing or the view file getting corrupted.

**User response:** The adjusted view will be used. You can issue CSET to modify the view.

### FEC983E
Invalid view. View deleted.

**Explanation:** Invalid data was found in a view for this report. The view was deleted and contents ignored. This could be caused by the report changing or the view file getting corrupted.

**User response:** You can issue CSET to create a view that will match current report.

### FEC984E
Unexpected return code from TBSTATS: rc

**Explanation:** An unexpected failure issuing TBSTATS was received.

**User response:** Refer to [https://www.ibm.com/support/knowledgecenter/en/SSLTBW for information about ISPF messages and codes for your version of z/OS](https://www.ibm.com/support/knowledgecenter/en/SSLTBW) to access the ISPF services guide for your version of z/OS.

### FEC985E
View Library not allocated.

**Explanation:** A view input library has not been allocated. In order for a user to save and use report customizations that are created via the CSET command, ISPTABL and ISPTLIB must be allocated.

**User response:** Refer to [https://www.ibm.com/support/knowledgecenter/en/SSLTBW for information about ISPF messages and codes for your version of z/OS](https://www.ibm.com/support/knowledgecenter/en/SSLTBW) to access the ISPF services guide for your version of z/OS.

### FEC986E
TBCREATE failed. RC=rc

**Explanation:** TBCREATE was issued to create a view. It failed with a (hex) return code as indicated in the message.


### FEC987E
TBOPEN failed. RC=rc

**Explanation:** TBOPEN was issued to open a view. It failed with a (hex) return code as indicated in the message.


### FEC988E
TBGET failed. RC=rc

**Explanation:** A TBGET produced a return code (as indicated in the message).


### FEC989E
TBMOD failed. RC=rc

**Explanation:** A TBMOD produced an error and return code (as indicated in the message).


### FEC990E
TBCLOSE failed. RC=rc

**Explanation:** TBCLOSE failed with a (hex) return code as indicated in the message.


### FEC991E
TBDELETE failed. RC=rc

**Explanation:** TBDELETE failed with a (hex) return code as indicated in the message.

FEC992E • FEC999E

FEC992E   Invalid selection.

Explanation: A command that is not supported on this panel was selected.

User response: Issue a valid command for the panel.

FEC993I   Permanent view not supported.

Explanation: Db2 Change Accumulation Tool detected something that prevents views from being saved. The permanent view flag cannot be set to Y. The most likely cause of this is that either ISPTLIB or ISPTABL (or both) have not been properly allocated.

User response: Review ISPTLIB allocation and data set characteristics. Refer to [https://www.ibm.com/support/knowledgcenter/en/SSLTBW for information about ISPF messages and codes for your version of z/OS](https://www.ibm.com/support/knowledgcenter/en/SSLTBW) for information about ISPF messages and codes for your version of z/OS.

FEC994E   Invalid row number.

Explanation: CEXPAND was issued with an invalid parameter of zero. CEXPAND can be issued with no parameters and the cursor on a data field, or with two parameters. The two parameters are the row number, followed by the column number of the data element to be expanded. The row number is counted down from the top, starting with the first scrollable row (heading not counted) The column number is counted from left to right, starting with the left column in the current display window.

User response: Specify a valid parameter count for use with CEXPAND.

FEC995E   Invalid column number.

Explanation: CEXPAND was issued with an invalid parameter of zero. CEXPAND can be issued with no parameters and the cursor on a data field, or with two parameters. The two parameters are the row number, followed by the column number of the data element to be expanded. The row number is counted down from the top, starting with the first scrollable row (heading not counted) The column number is counted from left to right, starting with the left column in the current display window.

User response: Specify a valid parameter count for use with CEXPAND.

FEC996E   Invalid digits.

Explanation: CEXPAND was issued with an invalid parameter of zero. CEXPAND can be issued with no parameters and the cursor on a data field, or with two parameters. The two parameters are the row number, followed by the column number of the data element to be expanded. The row number is counted down from the top, starting with the first scrollable row (heading not counted) The column number is counted from left to right, starting with the left column in the current display window.

User response: Specify a valid parameter count for use with CEXPAND.

FEC997E   Too many digits.

Explanation: CEXPAND was issued with an invalid parameter of zero. CEXPAND can be issued with no parameters and the cursor on a data field, or with two parameters. The two parameters are the row number, followed by the column number of the data element to be expanded. The row number is counted down from the top, starting with the first scrollable row (heading not counted) The column number is counted from left to right, starting with the left column in the current display window.

User response: Specify a valid parameter count for use with CEXPAND.

FEC998E   Zero parameter invalid.

Explanation: CEXPAND was issued with an invalid parameter of zero. CEXPAND can be issued with no parameters and the cursor on a data field, or with two parameters. The two parameters are the row number, followed by the column number of the data element to be expanded. The row number is counted down from the top, starting with the first scrollable row (heading not counted) The column number is counted from left to right, starting with the left column in the current display window.

User response: Specify a non-zero parameter.

FEC999E   Invalid parameter count: must be either two or zero parms.

Explanation: CEXPAND was issued with an invalid number of parameters. CEXPAND can be issued with no parameters and the cursor on a data field, or with two parameters. The two parameters are the row number, followed by the column number of the data element to be expanded. The row number is counted down from the top, starting with the first scrollable row (heading not counted) The column number is counted from left to right, starting with the left column in the current display window.

User response: Specify a valid parameter count for use with CEXPAND.
Tools Customizer messages

Use the information in these messages to help you diagnose and solve Tools Customizer problems.

**CCQB000I** The product parameter data was saved in the data store.

Explanation: Changes that were made to the product parameters were saved in the data store.

System action: None.

User response: No action is required.

**CCQB001I** The DB2 parameter data was saved in the data store.

Explanation: Changes that were made to the Db2 parameters were saved in the data store.

System action: None.

User response: No action is required.

**CCQB002I** The LPAR parameter data was saved in the data store.

Explanation: Changes that were made to the LPAR parameters were saved in the data store.

System action: None.

User response: No action is required.

**CCQB003I** The required information to run the Discover EXEC was saved in the data store.

Explanation: The data store contains all the information that is required to run the Discover EXEC.

System action: None.

User response: No action is required.

**CCQB005E** The conflicting values for the parameter <parameter_name> parameter must be resolved before the information can be saved.

Explanation: Two values for one parameter conflict with each other, and they must be resolved to save the information.

System action: Processing stops.

User response: Resolve the conflicting values for the parameter.

**CCQB006E** One row must be selected.

Explanation: One row in the table must be selected.

System action: Processing stops.

User response: Select one row.

**CCQB007E** Only one row can be selected.

Explanation: Multiple rows in the table are selected, but only one row is allowed to be selected.

System action: Processing stops.

User response: Select only one row.

**CCQC000I** The jobs have been customized on the selected DB2 entries.

Explanation: The jobs were customized on the Db2 entries that were selected.

System action: None.

User response: Press Enter to clear the message.

**CCQC001W** The jobs were not generated on one or more of the selected DB2 entries. Press PF3 to check the Db2 entries that were not customized.

Explanation: The product was not customized on one or more of the Db2 entries that were selected.

System action: None.

User response: Press PF3 to see the Db2 entries on which the product was not customized. The status of these Db2 entries is Errors in Customization.

**CCQC002I** The edit session was started automatically because values for required parameters are missing or must be verified.

Explanation: If product, LPAR parameters, or Db2 parameters are not defined or if parameter definitions must be verified, an editing session for the undefined or unverified parameters starts automatically.

System action: None.

User response: Define values for all required product,
LPAR parameters, or Db2 parameters.

**CCQC003W** The `template_name` template in the `library_name` metadata library does not contain any parameters.

**Explanation:** The specified template does not have parameters.

**System action:** None.

**User response:** No action is required.

**CCQC004S** The value of the "type" attribute for the `template_name` template in the `library_name` metadata library does not match the value that was previously specified. The value is `value_name`, and the previously specified value is `value_name`.

**Explanation:** The value of the "type" attribute must match the value that was previously specified.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

**CCQC005S** The `template_name` template exceeds the number of allowed templates for a customization sequence. The template is in the `library_name` metadata library.

**Explanation:** The customization sequence can process only `number` templates. The specified template cannot be processed because the customization sequence already contains the maximum number of templates.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

**CCQC006E** The jobs could not be generated for the `group_attach_name` Db2 group attach name.

**Explanation:** The customization jobs could not be generated for the specified Db2 group attach name.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

**CCQC007E** The jobs could not be generated for the `subsystem_ID` Db2 subsystem.

**Explanation:** The customization jobs could not be generated for the specified Db2 subsystem.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

**CCQC008E** The jobs could not be generated for the `member_name` Db2 member.

**Explanation:** The customization jobs could not be generated for the specified Db2 member.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

**CCQC009S** The jobs were not generated for the DB2 entries.

**Explanation:** One or more errors occurred while customization jobs were being generated for the selected Db2 entries.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

**CCQC010S** The `template_name` template could not be accessed in the `library_name` metadata library.

**Explanation:** The specified template could not be accessed because the user does not have RACF access to the data set, the data set has incorrect data characteristics, or the data set is not cataloged.

**System action:** Processing stops.

**User response:** Ensure that you have RACF access to the data set, that the characteristics are correct according to the specifications of the product that you are customizing, and that the data set is cataloged. If the problem persists, contact IBM Software Support.

**CCQC011S** The `template_name` template could not be written to the `library_name` customization library.

**Explanation:** The specified template could not be accessed because the user does not have RACF access to the data set, the data set has incorrect data characteristics, or the data set is not cataloged.

**System action:** Processing stops.
User response: Ensure that you have RACF access to the data set, that the characteristics are correct according to the specifications of the product that you are customizing, and that the data set is cataloged. If the problem persists, contact IBM Software Support.

CCQC012W The job card was generated with default values because the JOB keyword was missing.

Explanation: Default values were used to generate the job card because the JOB keyword was not specified in the first line of the job card.

System action: The job card was generated with default values.

User response: No action is required. To generate the job card with your own values, add the JOB keyword in the first line of the job card.

CCQC013W The job card was generated with the default value for the programmer name because the specified programmer name exceeded 20 characters.

Explanation: Default values were used to generate the job card because the specified programmer name contained too many characters.

System action: The job card was generated with default values.

User response: No action is required. To generate the job card with your own values, add a valid programmer name in the job card. A valid programmer name is 1 - 20 characters.

CCQC014W The job card was generated with default values because the JOB keyword was not followed by a space.

Explanation: Default values were used to generate the job card because a space did not follow the JOB keyword.

System action: The job card was generated with default values.

User response: No action is required. To generate the job card with your own values, add a space after the JOB keyword in the job card.

CCQC015S The template_name template in the library_name metadata library contains the following file-tailoring control statement: statement_name. This control statement is not valid in a template_type template.

Explanation: The template_type template cannot contain the specified type of file-tailoring control statement.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQC016S The )DOT file-tailoring control statement exceeded the number of allowed occurrences for the template_name template in the library_name metadata library.

Explanation: The )DOT file-tailoring control statement can occur only a limited number of times in the specified template.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQC017S The nested )DOT file-tailoring control statements exceeded the number of allowed occurrences in the template_name template in the library_name metadata library.

Explanation: Nested )DOT file-tailoring control statements can occur only number times.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQC018S The template_name template in the library_name metadata library is not valid because it does not contain any data.

Explanation: The specified template is missing required data.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQC019S The template_name template in the library_name metadata library is not valid because an )ENDDOT file-tailoring control statement is missing.

Explanation: A )ENDDOT file-tailoring control statement is required in the specified template.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.
CCQC021S  The template_name template in the library_name metadata library is not valid because the template must start with the parameter_name job card parameter.

Explanation:  The specified template must start with the specified job card parameter.

System action:  Processing stops.


CCQC022S  The parameters used in a )DOT file-tailoring control statement exceeded the number of allowed parameters in the template_name template. The template is in the library_name metadata library. The error occurs in )DOT section section_number.

Explanation:  A )DOT file-tailoring control statement can contain only a limited number of parameters.

System action:  Processing stops.


CCQC023S  The )DOT file-tailoring control statement must include the table-name table name in the template_name template. The template is in the library_name metadata library. The error occurs in )DOT section section_number.

Explanation:  The )DOT file-tailoring control statement is missing a required table name.

System action:  Processing stops.


CCQC024S  ISPF file tailoring failed for the template_name template in the library_name metadata library.

Explanation:  An error occurred during ISPF file tailoring for the specified template.

System action:  Processing stops.

User response:  Review the Tools Customizer-generated trace data set and the ISPF file tailoring trace data set. To create an ISPF file tailoring trace data set, complete the following steps:

1. Run Tools Customizer until the error is about to occur.
2. Specify the ISPFTTRC command, and press Enter.

3. Issue the Tools Customizer command that issues the error.

4. Specify the ISPFTTRC command, and press Enter.

The ISPF file tailoring trace data set is created. It adheres to the following naming convention:

TSO_ID.ISPF.TRACE, where TSO_ID is the TSO user ID that is being used.

If the problem persists, gather the following information and contact IBM Software Support.

• A screen capture of the Tools Customizer error.

Ensure that the complete error message is displayed by pressing PF1.

• The Tools Customizer trace data set. It adheres to the following naming convention: TSO_ID.CCQ.TRACE, where TSO_ID is the TSO user ID that is running Tools Customizer.

• The ISPF file tailoring trace data set.

CCQC025I  Customized jobs do not exist because they have not been generated.

Explanation:  The list of customized jobs cannot be displayed because the product has not been customized for any Db2 entries.

System action:  None.

User response:  Complete the steps to customize a product. Customized jobs are generated when all required product, LPAR parameters, and Db2 parameters are defined and at least one Db2 entry on which to customize the product has been selected.

CCQC026S  The value of the "customized" attribute for the parameter_name parameter in the library_name metadata library template does not match the value that was previously specified. The value is value_name, and the previously specified value is value_name.

Explanation:  The value for the "customized" attribute for a parameter must match the value that was previously specified.

System action:  Processing stops.


CCQC027S  The job_name customization job was not found in the library_name customization library.

Explanation:  The selected customization job does not exist in the customization library.

System action:  Processing stops.

**CCQC028S** The *library_name* customization library was not found.

Explaination: The customization library does not exist.

System action: Processing stops.


---

**CCQC029I** The customization jobs were generated for *Product_name*.

Explaination: The customization jobs were generated for the specific product.

System action: None.

User response: No action is required.

---

**CCQC030S** The customization jobs cannot be generated because at least one DB2 entry must be associated with this product.

Explaination: The product that you are customizing requires at least one Db2 entry to be associated with it before customization jobs can be generated.

System action: None.

User response: Associate a Db2 entry with the product that you are customizing, and regenerate the jobs.

---

**CCQC031I** The jobs were generated for the associated DB2 entries.

Explaination: The customization jobs were generated for the Db2 entries that are associated with the product.

System action: None.

User response: No action is required.

---

**CCQC032S** The customization jobs were not generated for *Product_name*.

Explaination: A severe error occurred while the jobs were being generated for the specified product.

System action: None.


---

**CCQC033S** The customization_library_name has no customized jobs.

Explaination: The specified customization library cannot be browsed or edited because it is empty.

System action: None.

User response: Generate customization jobs for the specified library, and browse or edit the library again.

---

**CCQC034S** The specified operation is not allowed.

Explaination: Issuing commands against customization jobs from the customization library from an ISPF browse or edit session that was started on the Finish Product Customization panel is restricted.

System action: None.

User response: To make changes to customization jobs, follow the steps for recustomization.

---

**CCQC035E** Before you generate customization jobs, edit the product parameters to select one or more tasks or steps, and then issue the G line command or the GENERATEALL command again.

Explaination: One or more tasks or steps must be selected before customization jobs can be generated.

System action: None.

User response: Edit the product parameters to select one or more tasks or steps. Then, issue the G line command or the GENERATEALL command again.

---

**CCQC036E** Before you exit the Product Parameters panel, you must select one or more tasks or steps to generate customization jobs or issue the CANCEL command.

Explaination: One or more tasks or steps must be selected to generate customization jobs or the CANCEL command must be issued before you can exit the Product Parameters panel.

System action: None.

User response: Select one or more tasks or steps, or issue the CANCEL command.

---

**CCQC037W** The customization information was not found.

Explaination: To use the JOBLIST command, the customization jobs must be regenerated by using the GENERATEALL command or the G line command.

System action: None.

User response: Issue the GENERATEALL command or the G line command to generate the customization jobs.
CCQC038W The customization information cannot be accessed because the customization member is being used.

Explanation: The customization member that was specified on NNN is currently being used.

System action: None.

User response: Determine why the customization member is in use, release it, and redo the work.

CCQD006S The XML structure of the member_name environment index member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element does not contain required content.

System action: Processing stops.


CCQD005S The XML structure of the member_name environment index member is not valid. The content length for the element_name element exceeds maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


CCQD004S The XML structure of the member_name environment index member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element does not contain required content.

System action: Processing stops.


CCQD003S The XML structure of the member_name environment index member is not valid. Content is not allowed for the element_name element, but content was found.

Explanation: Content was found in an element that cannot contain content.

System action: Processing stops.


CCQD002S The XML structure of the member_name environment index member is not valid. The element_name element cannot occur more than maximum_number times.

Explanation: The specified element occurs too many times in the environment index member.

System action: Processing stops.

CCQD007S The XML structure of the member_name environment index member is not valid. The element_name element must occur at least minimum_number times.

Explanation: The specified element does not occur enough times in the environment index member.

System action: Processing stops.


CCQD008S The XML structure of the member_name environment index member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: The specified attribute occurs too many times in the environment index member.

System action: Processing stops.


CCQD009S The XML structure of the member_name environment index member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute does not occur enough times in the environment index member.

System action: Processing stops.


CCQD010S The XML structure of the member_name environment index member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: Content was found in an attribute that cannot contain content. The name of the attribute and the name of the element that contains it are indicated in the message text.

System action: Processing stops.


CCQD011S The XML structure of the member_name environment index member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: An attribute does not contain required content. The name of the attribute and the name of the element that contains it are indicated in the message text.

System action: Processing stops.


CCQD012S The XML structure of the member_name environment index member is not valid. The content length for the element_name element exceeds maximum_number characters.

Explanation: An element contains too many characters. The name of the element and the maximum number of allowed characters are indicated in the message text.

System action: Processing stops.


CCQD013S The XML structure of the member_name environment index member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The environment index member contains an unknown attribute. The name of the unknown attribute and the name of the element that contains it are indicated in the message text.

System action: Processing stops.


CCQD050S The following LPAR serial number is duplicated in the environment index member: serial_number.

Explanation: The environment index member contains duplicate LPAR serial numbers. The duplicate serial number is indicated in the message text.

System action: Processing stops.

The following DB2 serial number is duplicated in the environment index member: serial_number.

Explanation: The environment index member contains duplicate DB2 serial numbers. The duplicate serial number is indicated in the message text.

System action: Processing stops.


The following DB2 group attach name is duplicated in the environment index member: group_attach_name.

Explanation: The environment index member contains duplicate group attach names.

System action: Processing stops.


The reference to the following DB2 subsystem for a DB2 group attach name is duplicated in the environment index member: subsystem_ID.

Explanation: The environment index member contains duplicate references to a DB2 subsystem for a DB2 group attach name.

System action: Processing stops.


The reference to the following DB2 subsystem for the LPAR_name LPAR is duplicated in the environment index member: subsystem_ID.

Explanation: The environment index member contains duplicate references to a DB2 subsystem for an LPAR. The duplicate subsystem ID is indicated in the message text.

System action: Processing stops.


The following LPAR was not found in the environment index member: LPAR_name.

Explanation: The LPAR does not exist in the environment index member.

System action: Processing stops.


The following LPAR is duplicated in the environment index member: LPAR_name.

Explanation: The environment index member contains duplicate LPARs. The name of the duplicate LPAR name is indicated in the message text.

System action: Processing stops.


The member_name product index member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation: While determining if the product index member is valid, the PL/I XML parser issued the specified exception warning code.

System action: Processing continues.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the specified exception warning code.

The member_name product index member is not valid. The PL/I XML parser issued the following exception error code: code_number.

Explanation: While determining if the product index member is valid, the PL/I XML parser issued the specified exception error code.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the specified exception error code. Ensure that the Tools Customizer data store data set DCB is the same as the

by a DB2 member does not exist in the environment index member.

System action: Processing stops.

sample SCCQSAMP(CCQCDATS) data set DCB.

CCQD102S  The XML structure of the member_name product index member is not valid. The element_name element is unknown.

Explanation: The specified product index member contains an unknown element.

System action: Processing stops.


CCQD103S  The XML structure of the member_name product index member is not valid. Content is not allowed for the element_name element, but content was found.

Explanation: Content was found for an element that cannot contain content.

System action: Processing stops.


CCQD104S  The XML structure of the member_name product index member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element does not contain required content.

System action: Processing stops.


CCQD105S  The XML structure of the member_name product index member is not valid. The content length for the element_name element exceeds maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


CCQD106S  The XML structure of the member_name product index member is not valid. The element_name element cannot occur more than maximum_number times.

Explanation: The specified element occurs too many times in the product index member.

System action: Processing stops.


CCQD107S  The XML structure of the member_name product index member is not valid. The element_name element must occur at least minimum_number times.

Explanation: The specified element does not occur enough times in the product index member.

System action: Processing stops.


CCQD108S  The XML structure of the member_name product index member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: An attribute occurs too many times. The name of the attribute and the element that contains it are indicated in the message text.

System action: Processing stops.


CCQD109S  The XML structure of the member_name product index member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute does not occur enough times in the product index member.

System action: Processing stops.

**CCQD110S** The XML structure of the `member_name` product index member is not valid. Content is not allowed for the `attribute_name` attribute in the `element_name` element, but content was found.

**Explanation:** An attribute cannot contain content. The name of the attribute and the element that contains it are indicated in the message text.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

---

**CCQD111S** The XML structure of the `member_name` product index member is not valid. Content is required for the `attribute_name` attribute in the `element_name` element, but content was not found.

**Explanation:** An attribute requires content. The name of the attribute and the name of the element that contains it are indicated in the message text.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

---

**CCQD112S** The XML structure of the `member_name` product index member is not valid. The content length for the `element_name` element exceeds `maximum_number` characters.

**Explanation:** The specified element contains too many characters.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

---

**CCQD113S** The XML structure of the `member_name` product index member is not valid. The `attribute_name` attribute in the `element_name` element is unknown.

**Explanation:** The specified attribute in the product index member is unknown.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

---

**CCQD118S** The content of the `member_name` product index member is not valid. The `configuration_ID` configuration ID for the `configuration-name` configuration name is not unique.

**Explanation:**

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

**CCQD120S** The content of the `member_name` product index member is not valid. The pack ID `pack_ID` that is referenced by product prefix `product_prefix` in the metadata library `library_name` could not be found.

**Explanation:** The specified pack ID could not be found in the metadata library.

**System action:** Processing stops.

**User response:** See “Gathering diagnostic information” on page 470. Contact IBM Software Support.

---

**CCQD121I** The specified pack contains the `component_name`, which was previously specified as a stand-alone product.

**Explanation:** The specified component of the pack was previously specified as a stand-alone product.

**System action:** None.

**User response:** No action is required.

---

**CCQD122I** The specified component metadata library was previously specified as part of the `pack_name`.

**Explanation:** The specified metadata library for the component was previously specified as part of a pack.

**System action:** None.

**User response:** No action is required.

---

**CCQD123E** The customization library name `library_name` is being used by another product or component. Specify another customization library qualifier on the Tools Customizer Settings panel.

**Explanation:** A different product or component is using the specified customization library.

**System action:** None.

**User response:** Specify another customization library qualifier on the Tools Customizer Settings panel.
The customization library `library_name` is in use by another metadata library.

**Explanation:** A different product or component is using the specified customization library. Specify another metadata library in the Workplace panel.

**System action:** None.

**User response:** Specify another customization library qualifier in the Tools Customizer Settings panel.

The member `member_name` product environment member is not valid. The PL/I XML parser issued the following exception warning code: `code_number`.

**Explanation:** While determining if the product environment member is valid, the PL/I XML parser issued the specified exception warning code.

**System action:** Processing continues.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the specified exception warning code.

The member `member_name` product environment member is not valid. The PL/I XML parser issued the following exception error code: `code_number`.

**Explanation:** While determining if the product environment member is valid, the PL/I XML parser issued the specified exception error code.

**System action:** Processing continues.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the specified exception error code.

The XML structure of the `member_name` product environment member is not valid. The `element_name` element is unknown.

**Explanation:** The specified product environment member contains an unknown element.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the specified exception error code.

The XML structure of the `member_name` product environment member is not valid. The `element_name` element cannot occur more than `maximum_number` times.

**Explanation:** The specified element occurs too many times in the product environment member.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the specified exception error code.

The XML structure of the `member_name` product environment member is not valid. The `element_name` element must occur at least `minimum_number` times.

**Explanation:** The specified element does not occur enough times in the product environment member.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the specified exception error code.

The XML structure of the `member_name` product environment member is not valid. Content is not allowed for the `element_name` element, but content was found.

**Explanation:** Content was found for an element that cannot contain content.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

The XML structure of the `member_name` product environment member is not valid. Content is required for the `element_name` element, but content was not found.

**Explanation:** The specified element does not contain required content.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

The XML structure of the `member_name` product environment member is not valid. The content length for the `element_name` element exceeds `maximum_number` characters.

**Explanation:** The specified element contains too many characters.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

The XML structure of the `member_name` product environment member is not valid. The `element_name` element cannot occur more than `maximum_number` times.

**Explanation:** The specified element occurs too many times in the product environment member.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

The XML structure of the `member_name` product environment member is not valid. The `element_name` element must occur at least `minimum_number` times.

**Explanation:** The specified element does not occur enough times in the product environment member.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.
CCQD308S The XML structure of the member_name product environment member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: The specified attribute occurs too many times. The name of the attribute and the element that contains it are indicated in the message text.

System action: Processing stops.


CCQD309S The XML structure of the member_name product environment member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute does not occur enough times in the product environment member.

System action: Processing stops.


CCQD310S The XML structure of the member_name product environment member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: The specified attribute cannot contain content. The name of the attribute and the element that contains it are indicated in the message text.

System action: Processing stops.


CCQD311S The XML structure of the member_name product environment member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute requires content. The name of the attribute and the name of the element that contains it are indicated in the message text.

System action: Processing stops.


CCQD312S The XML structure of the member_name product environment member is not valid. The content length for the element_name element exceeds maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


CCQD313S The XML structure of the member_name product environment member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The specified attribute in the product environment member is unknown.

System action: Processing stops.


CCQD350I The subsystem_ID Db2 subsystem is associated with this product.

Explanation: The specified Db2 subsystem was added and saved in the Tools Customizer data store for the product to be customized.

System action: Processing continues.

User response: No action is required.

CCQD351I The member_name Db2 member for the group_attach_name Db2 group attach name is associated with this product.

Explanation: The specified Db2 member for the group attach name was added and saved in the Tools Customizer data store for the product to be customized.

System action: Processing continues.

User response: No action is required.

CCQD352I The group_attach_name Db2 group attach name is associated with this product.

Explanation: The specified Db2 group attach name was added and saved in the Tools Customizer data store for the product to be customized.

System action: Processing continues.

User response: No action is required.
The subsystem_ID Db2 subsystem is already associated with this product.

Explanation: The specified Db2 subsystem cannot be added for the product to be customized because it already exists in the product environment in the data store.

System action: None.

User response: Ensure that the Db2 subsystem is specified correctly. If the problem persists, contact IBM Software Support.

The member_name Db2 member for the group_attach_name Db2 group attach name is already associated with this product.

Explanation: The specified Db2 member for the group attach name cannot be added for the product to be customized because it already exists in the product environment in the data store.

System action: None.

User response: Ensure that the Db2 group attach name is specified correctly. If the problem persists, contact IBM Software Support.

The group_attach_name Db2 group attach name is already associated with this product.

Explanation: The specified Db2 group attach name cannot be added for the product to be customized because it already exists in the product environment in the data store.

System action: Processing stops.

User response: Ensure that the Db2 group attach name is specified correctly. If the problem persists, contact IBM Software Support.

The library_name metadata library is not associated with the specified Db2 subsystem subsystem_ID.

Explanation: The specified Db2 subsystem and metadata library are not associated with each other.

System action: None.

User response: Ensure that the Db2 subsystem and the metadata library are associated. If the problem persists, contact IBM Software Support.

The library_name metadata library is not associated with the specified DB2 data sharing group member member_name for the group_attach_name Db2 group attach name.

Explanation: The specified Db2 data sharing group member for the group attach name and metadata library are not associated with each other.

System action: None.

User response: Ensure that the Db2 data sharing group member for the group attach name and the metadata library are associated. If the problem persists, contact IBM Software Support.
CCQD362S The library_name metadata library is not associated with the specified
  group_attach_name Db2 group attach name.

Explanation: The specified Db2 group attach name and metadata library are not associated with each other.

System action: None.

User response: Ensure that the Db2 group attach name and the metadata library are associated. If the problem persists, contact IBM Software Support.

CCQD400W The customization parser issued the code_number warning code while it parsed the product customization member member_name. See the PL/I programming guide for more information about this XML parser continuable exception code.

Explanation: While determining if the specified member is valid, the PL/I XML parser issued an exception warning code.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

CCQD401S The customization parser issued the code_number error code while it parsed the product customization member member_name. See the PL/I programming guide for more information about this XML parser terminating exception code.

Explanation: While determining if the specified member is valid, the PL/I XML parser issued an exception error code.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the error.

CCQD500W The data_set_name data store data set was not found.

Explanation: Tools Customizer could not find the specified data store data set.

System action: None.

User response: No action is required.

CCQD501W The data_set_name data store data set was not found, so it was created.

Explanation: Tools Customizer created the specified data set because it could not be found.

System action: None.

User response: No action is required.

CCQD502E The data_set_name data store data set is not writable.

Explanation: Tools Customizer cannot write to the specified data set.

System action: None.

User response: Ensure that the data set is writable.

CCQD503E The data_set_name data store data set could not be opened with the disposition_type disposition.

Explanation: Tools Customizer could not open the data set with the specified disposition.

System action: Processing stops.

User response: Ensure that you have WRITE authority access to this data set.

CCQD504E The data_set_name data store data set could not be opened with the option_name option.

Explanation: Tools Customizer could not open the data set with the specified option.

System action: Processing stops.

User response: Ensure that you have WRITE authority access to this data set.

CCQD505E The data store data set data_set_name already exists in a different volume.

Explanation: Tools Customizer could not create the specified data set because the specified data set already exists in a different volume. Data store data set names must be unique.

System action: Processing stops.

User response: Specify a different data store data set name.

CCQD510I The DB2 SSID and Db2 group attach name were created.

Explanation: The Db2 SSID and Db2 group attach name were created and saved in the data store.

System action: None.

User response: No action is required.
CCQD511E  The DB2 entry already exists in the list of Db2 entries to be associated.

Explanation: The Db2 entry cannot be added because it already exists in the list of Db2 entries to be associated.

System action: None.

User response: Specify a different Db2 entry.

CCQD512S  An error occurred while a DB2 entry was being created.

Explanation: A severe error occurred while a Db2 entry was being created.

System action: Processing stops.

User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQD513E  The specified DB2 entry already exists and is associated with the current product on the Customizer Workplace panel.

Explanation: The Db2 entry cannot be added because it already exists, and it is already associated with the product to be customized.

System action: None.

User response: Press F3 to go to the Customizer Workplace panel to see the Db2 entry, or specify a different Db2 entry.

CCQD514E  A value is required for a DB2 subsystem, a Db2 group attach name, or both before they can be created.

Explanation: Required information is missing. A Db2 subsystem, a Db2 group attach name, or both must be specified.

System action: None.

User response: Specify a Db2 subsystem, a Db2 group attach name, or both.

CCQD515E  The specified DB2 entry already exists in the list of Db2 entries and is already associated with the current product.

Explanation: The Db2 entry has already been created and associated with the product that you want to customize.

System action: None.

User response: Specify a different Db2 entry.

CCQD516E  The specified DB2 entry already exists in the list of Db2 entries on the Associate DB2 Entry with Product panel but is not associated with the current product.

Explanation: The Db2 entry exists, but it must be associated with the product to be customized.

System action: None.

User response: On the Customizer Workplace panel, issue the ASSOCIATE command to associate the Db2 entry with the product.

CCQD517S  An error occurred while a DB2 entry was being copied.

Explanation: A severe error occurred while a Db2 entry was being copied

System action: Processing stops.

User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQD518E  A value is required for a DB2 subsystem, a Db2 group attach name, or both before they can be copied.

Explanation: Required information is missing. A Db2 subsystem, a Db2 group attach name, or both must be specified.

System action: None.

User response: Specify a Db2 subsystem, a Db2 group attach name, or both.

CCQD519I  The DB2 entry was copied.

Explanation: The Db2 entry was copied and saved in the Tools Customizer data store.

System action: None.

User response: No action is required.

CCQD520S  The DB2 entry was copied to the list of Db2 entries but was not associated because the product is already associated with the allowed number of Db2 entries.

Explanation: The Db2 entry was not completely copied because a product can be associated with only 1200 Db2 entries.

System action: Processing stops.

User response: Remove a Db2 entry from the list, and copy the specified Db2 entry again.
CCQD521E • CCQD562E

CCQD521E Line_command is not a valid line command.
 Explanation: The specified line command is not valid. Valid line commands are on the panel.
 System action: Processing stops.
 User response: Specify a valid line command.

CCQD522E The subsystem_ID Db2 subsystem ID occurs more than once in the list. Each row must be unique.
 Explanation: The specified Db2 subsystem ID can be used only once.
 System action: Processing stops.
 User response: Specify a different Db2 subsystem ID.

CCQD523E The group_attach_name Db2 group attach name occurs more than once in the list. Each row must be unique.
 Explanation: The specified Db2 group attach name can be used only once.
 System action: Processing stops.
 User response: Specify a different Db2 group attach name.

CCQD524E The member_name Db2 member for the Db2 group attach name occurs more than once in the list. Each row must be unique.
 Explanation: The specified Db2 member for the Db2 group attach name can be used only once.
 System action: Processing stops.
 User response: Specify a different Db2 member for the Db2 group attach name.

CCQD525I The DB2 entries were created.
 User response: No action is required.

CCQD526E The subsystem_ID Db2 subsystem ID occurs more than once in the list. Each Db2 subsystem ID must be unique.
 Explanation: The specified Db2 subsystem ID can be used only once.
 System action: Processing stops.
 User response: Specify a different Db2 subsystem ID.

CCQD527I DB2 group attach names cannot be created during the copy process.
 Explanation: The ability to create Db2 group attach names is not available during the copy process.
 System action: None.
 User response: Create Db2 group attach names by issuing the CREATE command on the Customizer Workplace panel.

CCQD528E The metadata_library metadata library is already associated with number Db2 entries. The maximum number of associated Db2 entries for this metadata library is 256.
 Explanation: A metadata library can be associated with a maximum of 256 Db2 entries. The specified metadata library is already associated with 256.
 System action: Processing stops.
 User response: Remove an existing association between the specified metadata library and a Db2 entry, and associate the specified the metadata library with another entry.

CCQD529I At least one row is required.

CCQD530E The subsystem_ID Db2 subsystem already exists and is associated with the current product on the Customizer Workplace panel.
 Explanation: The specified Db2 subsystem exists and is associated with the product that you are customizing.
 System action: None.
 User response: Specify another Db2 subsystem.

CCQD562E The group_attach_name Db2 group attach name already exists and is associated with the current product on the Customizer Workplace panel.
 Explanation: The specified Db2 group attach name exists and is associated with the product that you are customizing.
 System action: None.
 User response: Specify another Db2 group attach name.
customizing. The subsystem is in the table on the Customizer Workplace panel.

**System action:** None.

**User response:** Specify another Db2 group attach name.

---

**CCQD563E** A value is required for a DB2 subsystem, a Db2 group attach name, or both before they can be created.

**Explanation:** A Db2 subsystem, a Db2 group attach name, or both are not specified so one or both of them cannot be created.

**System action:** None.

**User response:** Specify a value for the Db2 subsystem, the Db2 group attach name, or both.

---

**CCQD565E** The subsystem_ID Db2 subsystem already exists in the list of Db2 entries and is already associated with the current product.

**Explanation:** The specified subsystem is already associated.

**System action:** None.

**User response:** Specify a different Db2 subsystem.

---

**CCQD566E** The member_name Db2 member for the group_attach_name Db2 group attach name already exists in the list of Db2 entries and is already associated with the current product.

**Explanation:** The specified Db2 member is already associated.

**System action:** None.

**User response:** Specify a different Db2 member.

---

**CCQD567E** The group_attach_name Db2 group attach name already exists in the list of Db2 entries and is already associated with the current product.

**Explanation:** The specified Db2 group attach name is already associated.

**System action:** None.

**User response:** Specify another Db2 group attach name.

---

**CCQD568I** product_name is not associated with a DB2 entry.

**Explanation:** The product that you are trying to customize is not associated with a Db2 entry. Before a product can be customized, it must be associated with at least one Db2 entry.

**System action:** None.

**User response:** Associate one or more Db2 entries with the product.

---

**CCQD569I** The product_name product configuration is not associated with a DB2 entry.

**Explanation:** The configuration for the specified product is not associated with a Db2 entry.

**System action:** None.

**User response:** Associate one or more Db2 entries with the configuration.

---

**CCQD577W** The mode_name Db2 mode of the subsystem_ID Db2 subsystem is not supported by the product.

**Explanation:** The product does not support the specified Db2 mode.

**System action:** None.

**User response:** Specify a supported Db2 mode.

---

**CCQD578W** The mode_name Db2 mode of the member_name Db2 member for the Db2 group is not supported by the product.

**Explanation:** The product does not support the specified Db2 mode.

**System action:** None.

**User response:** Specify a supported Db2 mode.

---

**CCQD579W** The mode_name Db2 mode of the group_name Db2 group attach name is not supported by the product.

**Explanation:** The product does not support the specified Db2 mode.

**System action:** None.

**User response:** Specify a supported Db2 mode.

---

**CCQD580S** The subsystem_ID Db2 subsystem was copied to the list of Db2 entries but was not associated because the product is already associated with the allowed number of Db2 entries.

**Explanation:** The copied Db2 subsystem was not associated with the product because the product is associated with the maximum number of Db2 entries.

**System action:** None.

**User response:** Remove an associated Db2 entry and associate the product with the copied Db2 subsystem.
The member_name Db2 member for the group_attach_name Db2 group attach name was copied to the list of Db2 entries but was not associated because the product is already associated with the allowed number of Db2 entries.

**Explanation:** The copied Db2 member for the Db2 group attach name was not associated with the product because the product is associated with the maximum number of Db2 entries.

**System action:** None.

**User response:** Remove an associated Db2 entry and associate the product with the copied Db2 member.

The group_attach_name Db2 group attach name was copied to the list of Db2 entries but was not associated because the product is already associated with the allowed number of Db2 entries.

**Explanation:** The copied Db2 group attach name was not associated with the product because the product is associated with the maximum number of Db2 entries.

**System action:** None.

**User response:** Remove an associated Db2 entry and associate the product with the copied Db2 group attach name.

The from_DB2 Db2 subsystem was copied to the to_DB2 subsystem.

**System action:** None.

**User response:** No action is required.

The member_name Db2 member for the group_attach_name Db2 group attach name is copied to the subsystem_ID Db2 subsystem.

**Explanation:** The specified Db2 member was copied.

**System action:** None.

**User response:** No action is required.

The group_attach_name Db2 group attach name cannot be copied because a Db2 member is required.

**Explanation:** The specified Db2 group attach name was not copied because a Db2 member was missing.

**System action:** None.

**User response:** No action is required.

The current LPAR is LPAR_name, but the data store contains information about the LPAR_name LPAR. You must use the LPAR_name LPAR to customize the product.

**Explanation:** The LPAR that is stored in the data store data set must be used to customize the product.

**System action:** Processing stops.

**User response:** Use the LPAR that is stored in the data store data set.

The level_number Db2 level of the subsystem_name Db2 subsystem is not supported by the product.

**Explanation:** The product does not support the specified Db2 level.

**System action:** Processing continues.

**User response:** Specify a supported level of Db2.

The level_number Db2 level of the member_name Db2 member of the group_name Db2 group is not supported by the product.

**Explanation:** The product does not support the specified Db2 level.

**System action:** Processing continues.

**User response:** Specify a supported level of Db2.

The level_number Db2 level of the group_name Db2 group attach name is not supported by the product.

**Explanation:** The product does not support the specified Db2 level.

**System action:** Processing continues.

**User response:** Specify a supported level of Db2.

The subsystem_ID Db2 subsystem was deleted.

**User response:** No action is required.

The member_name Db2 for the group_attach_name Db2 group attach name was deleted.

**User response:** No action is required.
<table>
<thead>
<tr>
<th>CCQD595I</th>
<th>The group_attach_name Db2 group attach name was deleted.</th>
</tr>
</thead>
<tbody>
<tr>
<td>User response:</td>
<td>No action is required.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD596E</th>
<th>The subsystem_ID Db2 subsystem was not deleted.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>An internal error occurred while the specified Db2 subsystem was being deleted.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD597E</th>
<th>The member_name Db2 member for the group_attach_name Db2 group attach name was not deleted.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>An internal error occurred while the specified Db2 member was being deleted.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD598E</th>
<th>The member_name product customization member is not valid. The PL/I XML parser issued the following exception warning code: code_number.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>While determining if the XML structure of the product customization member is valid, the PL/I XML parser issued an exception warning code.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing continues.</td>
</tr>
<tr>
<td>User response:</td>
<td>See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD600W</th>
<th>The member_name product customization member is not valid. The PL/I XML parser issued an exception error code: code_number.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>While determining if the XML structure of the product customization member is valid, the PL/I XML parser issued an exception error code.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
<tr>
<td>User response:</td>
<td>See the Enterprise PL/I for z/OS Programming Guide for more information about the exception error code.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD601S</th>
<th>The member_name product customization member is not valid. The PL/I XML parser issued the following exception error code: code_number.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>While determining if the XML structure of the product customization member is valid, the PL/I XML parser issued an exception error code.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD602S</th>
<th>The XML structure of the member_name product customization member is not valid. The element_name element is unknown.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>The data store member contains an unknown element.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD603S</th>
<th>The XML structure of the member_name product customization member is not valid. Content is not allowed for the element_name element, but content was found.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>The specified element cannot contain content.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD604S</th>
<th>The XML structure of the member_name product customization member is not valid. Content is required for the element_name element, but content was not found.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>The specified element is missing required content.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CCQD605S</th>
<th>The XML structure of the member_name product customization member is not valid. The content length for the element_name element exceeds maximum_number characters.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation:</td>
<td>The specified element contains too many characters.</td>
</tr>
<tr>
<td>System action:</td>
<td>Processing stops.</td>
</tr>
</tbody>
</table>
CCQD606S  The XML structure of the member_name product customization member is not valid. The element_name element cannot occur more than maximum_number times.

Explanation:  The specified element occurs too many times.

System action:  Processing stops.


CCQD607S  The XML structure of the member_name product customization member is not valid. The element_name element must occur at least minimum_number times.

Explanation:  The specified element does not occur enough times.

System action:  Processing stops.


CCQD608S  The XML structure of the member_name product customization member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation:  The specified attribute occurs too many times.

System action:  Processing stops.


CCQD609S  The XML structure of the member_name product customization member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation:  The specified attribute does not occur enough times.

System action:  Processing stops.


CCQD610S  The XML structure of the member_name product customization member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation:  The specified attribute cannot contain content.

System action:  Processing stops.


CCQD611S  The XML structure of the member_name product customization member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation:  The specified attribute does not contain required content.

System action:  Processing stops.


CCQD612S  The XML structure of the member_name product customization member is not valid. The content length for the element_name element exceeds maximum_number characters.

Explanation:  The specified element contains too many characters.

System action:  Processing stops.


CCQD613S  The XML structure of the member_name product customization member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation:  The specified attribute in the data store member is unknown.

System action:  Processing stops.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Explanation</th>
<th>System action</th>
<th>User response</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCQD614S</td>
<td>The content of the member_name product customization member is not valid. The value of the element_name element is not valid. The value is value_name.</td>
<td>The specified value is not valid.</td>
<td>Processing stops.</td>
<td>See &quot;Gathering diagnostic information&quot; on page 470 and contact IBM Software Support.</td>
</tr>
<tr>
<td>CCQD700W</td>
<td>The member_name Db2 data member is not valid. The PL/I XML parser issued the following exception warning code: code_number.</td>
<td>While determining if the XML structure of the Db2 data member is valid, the PL/I XML parser issued an exception warning code.</td>
<td>Processing continues.</td>
<td></td>
</tr>
<tr>
<td>CCQD701S</td>
<td>The member_name Db2 data member is not valid. The PL/I XML parser issued the following exception error code: code_number.</td>
<td>While determining if the XML structure of the Db2 data member is valid, the PL/I XML parser issued an exception error code.</td>
<td>Processing continues.</td>
<td></td>
</tr>
<tr>
<td>CCQD750W</td>
<td>The value_number value in the Db2 parameter parameter_name was skipped because only maximum_number values are allowed.</td>
<td>The specified value was skipped because it exceeds the number of allowed values in the Db2 parameter.</td>
<td>Processing continues.</td>
<td>No action is required. To stop this message from being issued, remove the extra values from the LPAR parameter.</td>
</tr>
<tr>
<td>CCQD800W</td>
<td>The member_name LPAR data member is not valid. The PL/I XML parser issued the following exception warning code: code_number.</td>
<td>While determining if the XML structure of the LPAR data member is valid, the PL/I XML parser issued an exception warning code.</td>
<td>Processing continues.</td>
<td></td>
</tr>
<tr>
<td>CCQD801S</td>
<td>The member_name LPAR data member is not valid. The PL/I XML parser issued the following exception error code: code_number.</td>
<td>While determining if the XML structure of the LPAR data member is valid, the PL/I XML parser issued an exception error code.</td>
<td>Processing continues.</td>
<td></td>
</tr>
<tr>
<td>CCQD850W</td>
<td>The value_number value in the LPAR parameter parameter_name was skipped because only maximum_number values are allowed.</td>
<td>The specified value was skipped because it exceeds the number of allowed values in the LPAR parameter.</td>
<td>Processing continues.</td>
<td>No action is required. To stop this message from being issued, remove the extra values from the LPAR parameter.</td>
</tr>
<tr>
<td>CCQD851I</td>
<td>The subsystem_ID Db2 subsystem is copied to the member_name Db2 member for the group_attach_name Db2 group attach name.</td>
<td>No action is required.</td>
<td>No action is required.</td>
<td></td>
</tr>
<tr>
<td>CCQD852I</td>
<td>The member_name Db2 member for the group_attach_name Db2 group attach name is copied to the member_name Db2 member for the group_attach_name Db2 group attach name.</td>
<td>No action is required.</td>
<td>No action is required.</td>
<td></td>
</tr>
<tr>
<td>CCQD854I</td>
<td>The member_name Db2 member for the group_attach_name Db2 group attach name is copied to multiple Db2 entries.</td>
<td>No action is required.</td>
<td>No action is required.</td>
<td></td>
</tr>
</tbody>
</table>
CCQD900W  The product data member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation: While determining if the XML structure of the product data member is valid, the PL/I XML parser issued an exception warning code.

System action: Processing continues.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQD901S  The product data member is not valid. The PL/I XML parser issued the following exception error code: code_number.

Explanation: While determining if the XML structure of the product data member is valid, the PL/I XML parser issued an exception error code.

System action: Processing continues.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQD950W  The value value in the product parameter parameter_name was skipped because only maximum_number values are allowed.

Explanation: The specified value was skipped because it exceeds the number of allowed values in the product parameter.

System action: Processing continues.

User response: No action is required. To stop this message from being issued, remove the extra values from the product parameter.

CCQD961I  The Db2 member for the group_attach_name Db2 group attach name was changed to the Db2 member for the group_attach_name Db2 group attach name.

User response: No action is required.

CCQE000S  The message field name or message message_ID was not found.

Explanation: An error occurred while displaying a message field name or the specified message.

System action: Processing stops.


CCQE001E  An incorrect trace level was specified. Valid trace levels are 0 - 4.

Explanation: A wrong trace level was specified. Valid trace levels are 0 - 4.

System action: Processing stops.

User response: Specify a valid trace level 0 - 4.

CCQF028E  An asterisk was improperly specified in a filter argument.

Explanation: An asterisk, which is treated as data, is embedded in the filter arguments. A generic filter argument is specified by placing the asterisk in the last nonblank position of the argument. No rows match the filter arguments, so all rows will be shown.

System action: Processing stops.

User response: Specify a valid filter argument.

CCQF029I  More Db2 entries are associated with the specified product. All Db2 entries are listed.

System action: None.

User response: No action is required.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCQF080I</td>
<td>The customized jobs for the product that you are customizing are stored in this data set.</td>
</tr>
<tr>
<td>System action: None.</td>
<td></td>
</tr>
<tr>
<td>User response: No action is required.</td>
<td></td>
</tr>
<tr>
<td>CCQF081I</td>
<td>The JCL must be browsed or edited.</td>
</tr>
<tr>
<td>Explanation: You can either browse or edit the JCL.</td>
<td></td>
</tr>
<tr>
<td>System action: None.</td>
<td></td>
</tr>
<tr>
<td>User response: No action is required.</td>
<td></td>
</tr>
<tr>
<td>CCQF082E</td>
<td>The <code>sort-command</code> command has an invalid sort field or order. The valid fields are <code>list-of-column-names</code>.</td>
</tr>
<tr>
<td>Explanation: An invalid sort field or order was specified.</td>
<td></td>
</tr>
<tr>
<td>System action: Processing stops.</td>
<td></td>
</tr>
<tr>
<td>User response: Specify a valid sort field or order.</td>
<td></td>
</tr>
<tr>
<td>CCQF083E</td>
<td>The <code>sort-command</code> command is missing a sort field.</td>
</tr>
<tr>
<td>Explanation: A sort field must be specified.</td>
<td></td>
</tr>
<tr>
<td>System action: Processing stops.</td>
<td></td>
</tr>
<tr>
<td>User response: Specify a valid sort field.</td>
<td></td>
</tr>
<tr>
<td>CCQF084E</td>
<td>The <code>sort-command</code> command has more than two sort fields specified.</td>
</tr>
<tr>
<td>Explanation: The specified sort command included more than two sort fields. The sort command can have up to two fields specified.</td>
<td></td>
</tr>
<tr>
<td>System action: Processing stops.</td>
<td></td>
</tr>
<tr>
<td>User response: Specify only one or two sort fields.</td>
<td></td>
</tr>
<tr>
<td>CCQF085E</td>
<td>A sort order was specified incorrectly in the <code>sort-command</code> command. A sort order can be specified only after a field name.</td>
</tr>
<tr>
<td>Explanation: Valid orders are A (for ascending) or D (for descending).</td>
<td></td>
</tr>
<tr>
<td>System action: Processing stops.</td>
<td></td>
</tr>
<tr>
<td>User response: Specify a valid sort order after a field name.</td>
<td></td>
</tr>
<tr>
<td>CCQF086E</td>
<td>The <code>sort-command</code> command has an invalid sort field. The valid fields are <code>list-of-the-table-column-names</code>.</td>
</tr>
<tr>
<td>Explanation: An invalid sort field was specified.</td>
<td></td>
</tr>
<tr>
<td>System action: Processing stops.</td>
<td></td>
</tr>
<tr>
<td>User response: Specify a valid sort field.</td>
<td></td>
</tr>
<tr>
<td>CCQF087E</td>
<td>The <code>sort-command</code> command has an invalid sort order. The valid orders are A (for ascending) or D (for descending).</td>
</tr>
<tr>
<td>Explanation: An invalid sort order was specified.</td>
<td></td>
</tr>
<tr>
<td>System action: Processing stops.</td>
<td></td>
</tr>
<tr>
<td>User response: Specify a valid sort order.</td>
<td></td>
</tr>
<tr>
<td>CCQF088E</td>
<td>No row match the specified filter argument. All rows are shown.</td>
</tr>
<tr>
<td>Explanation: No rows match the selected values.</td>
<td></td>
</tr>
<tr>
<td>System action: Processing stops.</td>
<td></td>
</tr>
<tr>
<td>User response: Specify a matched value for filtering.</td>
<td></td>
</tr>
<tr>
<td>CCQF089I</td>
<td>Type the search arguments to filter objects. A generic filter argument is a search argument of the form AA* .</td>
</tr>
<tr>
<td>Explanation: In a generic filter argument, only the characters up to the asterisk (*) are compared. The * must be placed in the last nonblank position of the argument. Asterisks embedded in the argument are treated as data.</td>
<td></td>
</tr>
<tr>
<td>System action: None.</td>
<td></td>
</tr>
<tr>
<td>User response: No action is required.</td>
<td></td>
</tr>
<tr>
<td>CCQF110I</td>
<td>To show the panel instructions section, specify a slash (/). To hide the panel instructions section, remove the slash.</td>
</tr>
<tr>
<td>System action: None.</td>
<td></td>
</tr>
<tr>
<td>User response: No is action required.</td>
<td></td>
</tr>
<tr>
<td>CCQF111I</td>
<td>To show the Products to Customize section, specify a slash (/). To hide the Products to Customize section, remove the slash. The Product to Customize section can be shown or hidden only on the Customizer Workplace panel.</td>
</tr>
<tr>
<td>System action: None.</td>
<td></td>
</tr>
<tr>
<td>User response: No is action required.</td>
<td></td>
</tr>
</tbody>
</table>
To show the Usage Notes section, specify a slash (/). To hide the Usage Notes section, remove the slash. The Usage Notes section can be shown only on the Product Parameters, LPAR Parameters, and DB2 Parameters panels.

System action: None.
User response: No action is required.

The specified values have been saved.

System action: None.
User response: No action is required.

Displays the Panel Display Options panel. Use this panel to select which information to display on panels.

System action: None.
User response: No action is required.

The fully qualified name of the data set into which you want to copy the current user profile. If the data set name exceeds 42 characters, enclose the name in quotation marks. ALTER or UPDATE authorization to this data set is required.

System action: None.
User response: No action is required.

The volume name in which the data set will reside. If left blank, the volume name will be decided by the system.

System action: None.
User response: No action is required.

To show the panel instructions section, specify a slash (/). To hide the panel instructions section, remove the slash.

System action: None.
User response: No is action required.

The specified option option_name is not valid.

Explanation: The option that was specified is not a valid option on the panel.
System action: Tools Customizer stops.
User response: Specify a valid option on the panel.

Before you customize a product, verify your user settings.

Explanation: The user settings must be verified before a product can be customized.
System action: Tools Customizer stops.
User response: Verify the user settings.

Check the user settings. One or more current values are not valid.

Explanation: One or more of the values in the user settings is not valid.
System action: Tools Customizer stops.
User response: Ensure that the specified values for the user settings are valid.

Before you use Tools Customizer, you must select option 0 to verify your user settings.

Explanation: The user settings must be changed before a product can be customized.
System action: Tools Customizer stops.
User response: Change the user settings.

You must select option 0 to change your user settings.

Explanation: User settings must be changed before a product can be customized.
System action: Tools Customizer stops.
User response: Change the user settings.

The XML structure of the member_name Db2 parameter metadata member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation: While determining if the Db2 parameter metadata member is valid, the PL/I XML parser issued an exception warning code.
System action: Processing continues.
User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

The XML structure of the member_name Db2 parameter metadata member is not valid. The PL/I XML parser issued the following exception error code: code_number.

Explanation: While determining if the Db2 parameter
metadata member is valid, the PL/I XML parser issued an exception error code.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI002S  The XML structure of the member_name Db2 parameter metadata member is not valid. The element_name element is unknown.

Explanation: The specified element in the Db2 parameter metadata member is unknown.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI003S  The XML structure of the member_name Db2 parameter metadata member is not valid. Content is not allowed for the element_name element, but content was found.

Explanation: The specified element cannot contain content.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI004S  The XML structure of the member_name Db2 parameter metadata member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element requires content.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI005S  The XML structure of the member_name Db2 parameter metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI006S  The XML structure of the member_name Db2 parameter metadata member is not valid. The element_name element must be at least minimum_number characters.

Explanation: The specified element does not contain enough characters.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI007S  The XML structure of the member_name Db2 parameter metadata member is not valid. The element_name element must occur at least minimum_number times.

Explanation: The specified element does not occur enough times.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI008S  The XML structure of the member_name Db2 parameter metadata member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: The specified attribute occurs too many times.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI009S  The XML structure of the member_name Db2 parameter metadata member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute did not occur enough times.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.
The XML structure of the member_name Db2 parameter metadata member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: The specified attribute cannot have content.

System action: Processing stops.


The XML structure of the member_name Db2 parameter metadata member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute is missing required content.

System action: Processing stops.


The XML structure of the member_name Db2 parameter metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


The XML structure of the member_name Db2 parameter metadata member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The specified attribute in the Db2 parameter metadata member is unknown.

System action: Processing stops.


The content of the member_name Db2 parameter metadata member is not valid because the value of the element_name element is incorrect. The value is value_name.

Explanation: The specified value of the element is not a valid value.

System action: Processing stops.


The content of the DB2 parameter metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value of the attribute is value_name.

Explanation: The specified value of the attribute is not a valid value.

System action: Processing stops.


The content of the DB2 parameter metadata member is not valid because the data type of the element_name element is incorrect. The value is value_name.

Explanation: The specified data type is not a valid data type.

System action: Processing stops.


The content of the DB2 parameter metadata member is not valid because the data type of the attribute_name attribute in the element_name element is incorrect. The value of the attribute is value_name.

Explanation: The specified data type is not a valid data type.

System action: Processing stops.

| CCQI050S | The **member_name** Db2 parameter metadata member was not found in the **data_set_name** data set.  
**Explanation:** Tools Customizer could not find the specified Db2 parameter metadata member.  
**System action:** Processing stops.  
**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support. |
| CCQI051S | The **parameter_name** LPAR parameter in the **template_name** template does not have associated metadata in the **member_name** LPAR parameter metadata member.  
**Explanation:** The specified template does not contain metadata for an LPAR parameter. The name of the LPAR parameter metadata member, the name of the LPAR parameter, and the name of the template are indicated in the message text.  
**System action:** Processing stops.  
**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support. |
| CCQI052S | The **parameter_name** product parameter in the **template_name** template does not have associated metadata in the **member_name** product parameter metadata member.  
**Explanation:** The specified template does not contain metadata for a product parameter. The name of the product parameter metadata member, the name of the product parameter, and the name of the template are indicated in the message text.  
**System action:** Processing stops.  
**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support. |
| CCQI053S | The following metadata data set was not found: **data_set_name**.  
**Explanation:** Tools Customizer could not find the specified metadata data set.  
**System action:** Processing stops.  
**User response:** Ensure that the metadata data set is specified correctly. If the problem persists, contact IBM Software Support. |
| CCQI054E | The following metadata data set could not be opened: **data_set_name**.  
**Explanation:** Tools Customizer could not open the specified LPAR metadata data set.  
**System action:** Processing stops.  
**User response:** Ensure the metadata data set was specified correctly. |
| CCQI055S | The CCQ$$DB2 Db2 parameter metadata member was not found in the **data_set_name** Tools Customizer metadata data set.  
**Explanation:** Tools Customizer could not find the Db2 parameter metadata member in the specified Tools Customizer metadata data set.  
**System action:** Processing stops.  
**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support. |
| CCQI056S | The CCQ$$LPR LPAR parameter metadata member was not found in the **data_set_name** data set.  
**Explanation:** Tools Customizer could not find the specified LPAR parameter metadata member.  
**System action:** Processing stops.  
**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support. |
| CCQI057S | The **member_name** product parameter metadata member was not found in the **data_set_name** data set.  
**Explanation:** The product parameter metadata member was not found in the specified data set.  
**System action:** Processing stops.  
**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support. |
| CCQI058I | **Product_name** does not have any Db2 parameters.  
**Explanation:** Db2 parameters are not required to customize the specified product.  
**System action:** Processing continues.  
**User response:** No action is required. |
### CCQI059I

**Product name** does not have any LPAR parameters.

**Explanation:** LPAR parameters are not required to customize the specified product.

**System action:** Processing continues.

**User response:** No action is required.

---

### CCQI060S

The **parameter name** Db2 parameter in the **task description** task condition does not have associated metadata in the **member name** Db2 parameter metadata member.

**Explanation:** Associated metadata is missing for the specified Db2 parameter in a task.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

---

### CCQI061S

The **parameter name** LPAR parameter in the **task description** task condition does not have associated metadata in the **member name** LPAR parameter metadata member.

**Explanation:** Associated metadata is missing for the specified LPAR parameter in a task.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

---

### CCQI062S

The **parameter name** product parameter in the **task description** task condition does not have associated metadata in the **member name** product parameter metadata member.

**Explanation:** Associated metadata is missing for the specified product parameter in a task.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

---

### CCQI063S

The **parameter name** Db2 parameter in the **task description** task and the **step description** step does not have associated metadata in the **member name** LPAR parameter metadata member.

**Explanation:** Associated metadata is missing for the specified Db2 parameter in a task and step.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

---

### CCQI064S

The **parameter name** LPAR parameter in the **task description** task and the **step description** step does not have associated metadata in the **member name** LPAR parameter metadata member.

**Explanation:** Associated metadata is missing for the specified LPAR parameter in a task and step.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

---

### CCQI065S

The **parameter name** product parameter in the **task description** task and the **step description** step does not have associated metadata in the **member name** parameter metadata member.

**Explanation:** Associated metadata is missing for the specified parameter in a task and step.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

---

### CCQI066S

The **parameter name** Db2 parameter in the **task description** task, **step description** step, and **template name** template condition does not have associated metadata in the **member name** Db2 parameter metadata member.

**Explanation:** Associated metadata is missing for the specified Db2 parameter in a task, step, and template.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

---

### CCQI067S

The **parameter name** LPAR parameter in the **task description** task, **step description** step, and **template name** template condition does not have associated metadata in the **member name** LPAR parameter metadata member.

**Explanation:** Associated metadata is missing for the specified LPAR parameter in a task, step, and template.

**System action:** Processing stops.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.
CCQI068S  The parameter_name product parameter in the task_description task, step_description step, and template_name template condition does not have associated metadata in the member_name product parameter metadata member.

Explanation:  Associated metadata is missing for the specified product parameter in a task, step, and template.

System action:  Processing stops.


CCQI069S  Product metadata does not support multiple configurations, but the template_name product template contains the parameter_name parameter. Enable multiple configurations support for this product, and try again.

Explanation:  The specified template contains a parameter for multiple configurations, but the product is not enabled to support multiple configurations.

System action:  Processing stops.

User response:  Enable multiple configurations support, and try again.

CCQI070E  The parameter_name Db2 parameter metadata member is not valid. The default length for the parameter_element_name parameter element exceeds the length of the parameter. The default length is default_length, and the specified length is specified_length. The default length will be truncated accordingly.

Explanation:  The specified length cannot be shorter than the default length.

System action:  Processing stops.


CCQI071E  The parameter_name LPAR parameter metadata member is not valid. The default length for the parameter_element_name parameter element exceeds the length of the parameter. The default length is default_length, and the specified length is specified_length. The default length will be truncated accordingly.

Explanation:  The specified length cannot be shorter than the default length.

System action:  Processing stops.


CCQI072E  The parameter_name product parameter metadata member is not valid. The default length for the parameter_element_name parameter element exceeds the length of the parameter. The default length is default_length, and the specified length is specified_length. The default length will be truncated accordingly.

Explanation:  The specified length cannot be shorter than the default length.

System action:  Processing stops.


CCQI073S  The XML structure of the member_name Db2 parameter metadata member is not valid. The following value of the attribute_name attribute in the element_name element already exists: value_name.

Explanation:  The specified value already exists for an attribute.

System action:  Processing stops.


CCQI074S  The XML structure of the member_name LPAR parameter metadata member is not valid. The following value of the attribute_name attribute in the element_name element already exists: value_name.

Explanation:  The specified value already exists for an attribute.

System action:  Processing stops.

CCQI075S The XML structure of the member_name product parameter metadata member is not valid. The following value of the attribute_name attribute in the element_name element already exists: value_name.

Explanation: The specified value already exists for an attribute.

System action: Processing stops.


CCQI076S The XML structure of the member_name Db2 parameter metadata member is not valid. The parameter_name parameter refers to the section-name section. This section was not found in the Db2 parameter metadata member.

Explanation: The specified value already exists for an attribute.

System action: Processing stops.


CCQI077S The XML structure of the member_name LPAR parameter metadata member is not valid. The parameter_name parameter refers to the section-name section. This section was not found in the LPAR parameter metadata member.

Explanation: The specified value already exists for an attribute.

System action: Processing stops.


CCQI078S The XML structure of the member_name product parameter metadata member is not valid. The parameter_name parameter refers to the section-name section. This section was not found in the product parameter metadata member.

Explanation: The specified value already exists for an attribute.

System action: Processing stops.


CCQI080S The content of the member_name Db2 parameter metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value of the attribute is value_name.

Explanation: The specified value for an attribute in the Db2 parameter metadata member is not valid.

System action: Processing stops.


CCQI081S The content of the member_name LPAR parameter metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value of the attribute is value_name.

Explanation: The specified value for an attribute in the LPAR parameter metadata member is not valid.

System action: Processing stops.


CCQI082S The content of the member_name product parameter metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value of the attribute is value_name.

Explanation: The specified value for an attribute in the product parameter metadata member is not valid.

System action: Processing stops.


CCQI088I The command command is not active in BROWSE mode.

Explanation: The specified command can be entered only in Edit mode.

System action: Processing continues.

User response: Put the panel in Edit mode and reissue the command.
### CCQI089I

The command command is already active.

**System action:** Processing continues.

**User response:** No action required.

### CCQI090S

The product-defined Db2 parameter parameter_name in the member_name parameter metadata member references the section_ID section ID, but this ID does not exist in either the parameter metadata member or the Db2 parameter metadata member.

**Explanation:** A section that does not exist in the parameter metadata member or the Db2 parameter metadata member is referenced by the specified Db2 parameter.

**System action:** Processing continues.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

### CCQI091S

The product-defined LPAR parameter in the member_name parameter metadata member references the section_ID section ID, but this ID does not exist in either the parameter metadata member or the LPAR parameter metadata member.

**Explanation:** A section that does not exist in the parameter metadata member or the LPAR parameter metadata member is being referenced by the specified LPAR parameter.

**System action:** Processing continues.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

### CCQI092S

The overridden DB2 parameter parameter_name in the member_name parameter metadata member does not exist in the Db2 parameter metadata member.

**Explanation:** The specified parameter does not exist.

**System action:** Processing continues.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

### CCQI093S

The overridden LPAR parameter parameter_name in the member_name parameter metadata member does not exist in the LPAR parameter metadata member.

**Explanation:** The specified parameter does not exist.

**System action:** Processing continues.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

### CCQI094S

The overridden LPAR parameter parameter_name in the member_name parameter metadata member does not exist in the LPAR parameter metadata member.

**Explanation:** The specified parameter does not exist.

**System action:** Processing continues.

**User response:** See "Gathering diagnostic information" on page 470. Contact IBM Software Support.

### CCQI100W

The XML structure of the member_name LPAR parameter metadata member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

**Explanation:** While determining if the LPAR parameter metadata member is valid, the PL/I XML parser issued an exception warning code.

**System action:** Processing continues.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

### CCQI101S

The XML structure of the member_name LPAR parameter metadata member is not valid. The PL/I XML parser issued the following exception error code: code_number.

**Explanation:** While determining if the LPAR parameter metadata member is valid, the PL/I XML parser issued an exception error code.

**System action:** Processing continues.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the exception error code.

### CCQI102S

The XML structure of the member_name LPAR parameter metadata member is not valid. The element_name element is unknown.

**Explanation:** The specified element in the LPAR parameter metadata member is unknown.

**System action:** Processing continues.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.
CCQI103S The XML structure of the member_name LPAR parameter metadata member is not valid. Content is not allowed for the element_name element, but content was found.

Explanation: The specified element cannot contain content.

System action: Processing stops.


CCQI104S The XML structure of the member_name LPAR parameter metadata member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element requires content.

System action: Processing stops.


CCQI105S The XML structure of the member_name LPAR parameter metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


CCQI106S The XML structure of the member_name LPAR parameter metadata member is not valid. The content length for the element_name element must be at least minimum_number characters.

Explanation: The specified element does not contain enough characters.

System action: Processing stops.


CCQI107S The XML structure of the member_name LPAR parameter metadata member is not valid. The element_name element must occur at least minimum_number times.

Explanation: The specified element does not occur enough times.

System action: Processing stops.


CCQI108S The XML structure of the member_name LPAR parameter metadata member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: The specified attribute occurs too many times.

System action: Processing stops.


CCQI109S The XML structure of the member_name LPAR parameter metadata member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute did not occur enough times.

System action: Processing stops.


CCQI110S The XML structure of the member_name LPAR parameter metadata member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: The specified attribute cannot have content.

System action: Processing stops.

CCQI11S The XML structure of the member_name LPAR parameter metadata member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute is missing required content.
System action: Processing stops.

CCQI112S The XML structure of the member_name LPAR parameter metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.
System action: Processing stops.

CCQI113S The XML structure of the member_name LPAR parameter metadata member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The specified attribute in the LPAR parameter metadata member is unknown.
System action: Processing stops.

CCQI114S The content of the member_name LPAR parameter metadata member is not valid because the value of the element_name element is incorrect. The value is value_name.

Explanation: The specified value for an element in the LPAR parameter metadata member is not valid.
System action: Processing stops.

CCQI115S The content of the member_name LPAR parameter metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value of the attribute is value_name.

Explanation: The specified value for an attribute in the LPAR parameter metadata member is not valid.
System action: Processing stops.

CCQI116S The content of the member_name LPAR parameter metadata member is not valid because the data type of the element_name element is incorrect. The value is value_name.

Explanation: The specified data type value for an element in the LPAR parameter metadata member is not valid.
System action: Processing stops.

CCQI117S The content of the member_name LPAR parameter metadata member is not valid because the data type of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation: The specified data type value for an attribute in the LPAR parameter metadata member is not valid.
System action: Processing stops.

CCQI120S The XML structure of the member_name Db2 parameter metadata member is not valid. The element_name element in the parameter_name parameter contains duplicate values for the element_name element. The duplicate value is value_name.

Explanation: An element contains the specified duplicate value.
System action: Processing stops.
CCQI121S  The XML structure of the member_name LPAR parameter metadata member is not valid. The element_name element in the parameter_name parameter contains duplicate values for the element_name element. The duplicate value is value_name.

Explanation: An element contains the specified duplicate value.

System action: Processing stops.

User response: See "Gathering diagnostic information" on page 470 [Contact IBM Software Support].

CCQI200W  The XML structure of the member_name information metadata member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation: While determining if the information metadata member is valid, the PL/I XML parser issued an exception warning code.

System action: Processing continues.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI122S  The XML structure of the member_name parameter metadata member is not valid. The element_name element in the parameter_name parameter contains duplicate values for the element_name element. The duplicate value is value_name.

Explanation: An element contains the specified duplicate value.

System action: Processing stops.

User response: See "Gathering diagnostic information" on page 470 [Contact IBM Software Support].

CCQI123S  The XML structure of the member_name discover metadata member is not valid. The element_name element is unknown.

Explanation: The specified element in the information metadata member is unknown.

System action: Processing stops.

User response: See "Gathering diagnostic information" on page 470 [Contact IBM Software Support].

CCQI124S  The XML structure of the member_name product customization parameter metadata member is not valid. The element_name element in the parameter_name parameter contains duplicate values for the element_name element. The duplicate value is value_name.

Explanation: An element contains the specified duplicate value.

System action: Processing stops.

User response: See "Gathering diagnostic information" on page 470 [Contact IBM Software Support].

CCQI204S The XML structure of the member_name information metadata member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element requires content.

System action: Processing stops.


CCQI205S The XML structure of the member_name information metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


CCQI206S The XML structure of the member_name information metadata member is not valid. The content length for the element_name element must be at least minimum_number characters.

Explanation: The specified element does not contain enough characters.

System action: Processing stops.


CCQI207S The XML structure of the member_name information metadata member is not valid. The element_name element must occur at least minimum_number times.

Explanation: The specified element does not occur enough times.

System action: Processing stops.


CCQI208S The XML structure of the member_name information metadata member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: The specified attribute occurs too many times.

System action: Processing stops.


CCQI209S The XML structure of the member_name information metadata member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute did not occur enough times.

System action: Processing stops.


CCQI210S The XML structure of the member_name information metadata member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: The specified attribute cannot have content.

System action: Processing stops.


CCQI211S The XML structure of the member_name information metadata member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute is missing required content.

System action: Processing stops.

CCQI212S  The XML structure of the member_name information metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation:  The specified element contains too many characters.

System action:  Processing stops.


CCQI213S  The XML structure of the member_name information metadata member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation:  The specified attribute in the information metadata member is unknown.

System action:  Processing stops.


CCQI214S  The content of the member_name information metadata member is not valid because the value of the element_name element is incorrect. The value is value_name.

Explanation:  The specified value for an element in the information metadata member is not valid.

System action:  Processing stops.


CCQI215S  The content of the member_name information metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation:  The specified value for an attribute in the information metadata member is not valid.

System action:  Processing stops.


CCQI216S  The content of the member_name information metadata member is not valid because the data type of the element_name element is incorrect. The value is value_name.

Explanation:  The specified data type value for an element in the information metadata member is not valid.

System action:  Processing stops.


CCQI217S  The content of the member_name information metadata member is not valid because the data type of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation:  The specified data type value for an attribute in the information metadata member is not valid.

System action:  Processing stops.


CCQI218S  The content of the member_name information metadata member is not valid. The length of the value_name value that of the attribute_name attribute is longer than the value_name value of the attribute_name attribute.

Explanation:  The first specified value cannot be longer than the second specified value.

System action:  Processing stops.


CCQI219S  The content of the member_name information metadata member is not valid. The value_name value of the attribute_name attribute contains the value_name value.

Explanation:  The first specified value cannot be longer than the second specified value.

System action:  Processing stops.

The XML structure of the member_name information metadata member is not valid. Content for the attribute_name attribute in the element_name element exceed maximum_number characters.

Explanation: The specified attribute contains too many characters.

System action: Processing stops.


The XML structure of the member_name information metadata member is not valid. The value that is specified for the Db2 Level already exists. The value is value_name.

Explanation: The specified value already exists.

System action: Processing stops.

User response: Specify a different Db2 level. If the problem persists, contact IBM Software Support.

The XML structure of the member_name information metadata member is not valid. The value that is specified for the Db2 Mode already exists. The value is value_name.

Explanation: The specified value already exists.

System action: Processing stops.

User response: Specify a different Db2 mode. If the problem persists, contact IBM Software Support.

The information metadata member was not found in the library_name component metadata library that is part of the library_name pack metadata library. The name of the pack is pack_name.

Explanation: The specified component metadata library does not contain the information metadata member.

System action: Processing stops.

User response: Specify the correct metadata library.

The library_name Tools Customizer metadata library is not current. Update the metadata library on the Tools Customizer Settings panel.

Explanation: The specified metadata library is not current.

System action: Processing stops.

User response: Specify a current metadata library on the Tools Customizer Settings panel.

The XML structure of the member_name sequence metadata member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation: While determining if the sequence metadata member is valid, the PL/I XML parser issued an exception warning code.

System action: Processing continues.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

The XML structure of the member_name sequence metadata member is not valid. The PL/I XML parser issued the following exception error code: code_number.

Explanation: While determining if the sequence metadata member is valid, the PL/I XML parser issued an exception error code.

System action: Processing stops.
User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception error code, and contact IBM Software Support.

CCQI302S  The XML structure of the *member_name* sequence metadata member is not valid. The *element_name* element is unknown.

Explanation: The specified element in the sequence metadata member is unknown.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI303S  The XML structure of the *member_name* sequence metadata member is not valid. Content is not allowed for the *element_name* element, but content was found.

Explanation: The specified element cannot contain content.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI304S  The XML structure of the *member_name* sequence metadata member is not valid. Content is required for the *element_name* element, but content was not found.

Explanation: The specified element is missing required content.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI305S  The XML structure of the *member_name* sequence metadata member is not valid. Content length for the *element_name* element cannot exceed *maximum_number* characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI306S  The XML structure of the *member_name* sequence metadata member is not valid. The *element_name* element cannot occur more than *maximum_number* times.

Explanation: The specified element occurs too many times.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI307S  The XML structure of the *member_name* sequence metadata member is not valid. The *element_name* element must occur at least *minimum_number* times.

Explanation: The specified element does not occur enough times.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI308S  The XML structure of the *member_name* sequence metadata member is not valid. The *attribute_name* attribute in the *element_name* element cannot occur more than *maximum_number* times.

Explanation: The specified attribute occurs too many times.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI309S  The XML structure of the *member_name* sequence metadata member is not valid. The *attribute_name* attribute in the *element_name* element must occur at least *minimum_number* times.

Explanation: The specified attribute does not occur enough times.

System action: Processing stops.

User response: See “Gathering diagnostic information” on page 470 Contact IBM Software Support.

CCQI310S  The XML structure of the *member_name* sequence metadata member is not valid. Content is not allowed for the *attribute_name* attribute in the *element_name* element, but content was found.
CCQI311S The XML structure of the member_name sequence metadata member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute is missing required content.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQI312S The XML structure of the member_name sequence metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQI313S The XML structure of the member_name sequence metadata member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The specified attribute in the sequence metadata member is unknown.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQI314S The content of the member_name sequence metadata member is not valid because the value of the element_name element is incorrect. The value is value_name.

Explanation: The specified value for an element in the sequence metadata member is not valid.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQI315S The content of the member_name sequence metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation: The specified value for an attribute in the sequence metadata member is not valid.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQI316S The content of the member_name sequence metadata member is not valid because the data type of the element_name element is incorrect. The value is value_name.

Explanation: The specified data type value for an element in the sequence metadata member is not valid.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQI317S The content of the member_name sequence metadata member is not valid because the data type of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation: The specified data type value for an attribute in the sequence metadata member is not valid.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.

CCQI350S The XML structure of the member_name sequence metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation: A specified value for an attribute in the sequence metadata member is not valid.
System action: Processing stops.
User response: See "Gathering diagnostic information" on page 470 Contact IBM Software Support.
CCQI351S  The member_name sequence metadata member was not found in the data_set_name metadata data set.

Explanation:  Tools Customizer could not find the specified sequence metadata member in the metadata data set.

System action:  Processing stops.

User response:  See "Gathering diagnostic information" on page 470 | Contact IBM Software Support.

CCQI352S  The template_name product template was not found in the data_set_name metadata data set.

Explanation:  Tools Customizer could not find the specified product template in the data set.

System action:  Processing stops.

User response:  See "Gathering diagnostic information" on page 470 | Contact IBM Software Support.

CCQI353S  The sequence metadata member was not found in the data_set_name component data set that is part of the data_set_name pack.

Explanation:  Tools Customizer could not find the sequence metadata member.

System action:  Processing stops.

User response:  See "Gathering diagnostic information" on page 470 | Contact IBM Software Support.

CCQI360S  The XML structure of the member_name sequence metadata member is not valid. The value of the attribute_name attribute in the element_name element already exists.

Explanation:  The specified attribute contains a value that already exists.

System action:  Processing stops.

User response:  See "Gathering diagnostic information" on page 470 | Contact IBM Software Support.

CCQI361S  The XML structure of the member_name sequence metadata member is not valid. The condition element on the level_type level already contains a relational operator.

Explanation:  A relational operator already exists for the condition element on the specified level.

System action:  Processing stops.

User response:  See "Gathering diagnostic information" on page 470 | Contact IBM Software Support.

CCQI362S  The XML structure of the member_name sequence metadata member is not valid. The condition element on the level_type level must contain only one content string or content number element.

Explanation:  Only one content string element or content number element can be contained in the condition element on the specified level.

System action:  Processing stops.

User response:  See "Gathering diagnostic information" on page 470 | Contact IBM Software Support.

CCQI363S  The XML structure of the member_name sequence metadata member is not valid. The condition element in the element_name element with the attribute_name attribute must contain either the content string element or the content number element.

Explanation:  Either the content string element or the content number element must be in the condition element.

System action:  Processing stops.

User response:  Contact IBM Software Support.

CCQI400W  The XML structure of the member_name parameter metadata member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation:  While determining the parameter metadata member is valid, the PL/I XML parser issued an exception warning code.

System action:  Processing continues.

User response:  See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

CCQI401S  The XML structure of the member_name parameter metadata member is not valid. The PL/I XML parser issued the following exception error code: code_number.

Explanation:  While determining if the parameter metadata member is valid, the PL/I XML parser issued an exception error code.
System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

---

CCQI402S The XML structure of the member_name parameter metadata member is not valid. The element_name element is unknown.

Explanation: The specified element in the parameter metadata member is unknown.

System action: Processing stops.


---

CCQI403S The XML structure of the member_name parameter metadata member is not valid. Content is not allowed for the element_name element, but content was found.

Explanation: The specified element cannot contain content.

System action: Processing stops.


---

CCQI404S The XML structure of the member_name parameter metadata member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element requires content.

System action: Processing stops.


---

CCQI405S The XML structure of the member_name parameter metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


---

CCQI406S The XML structure of the member_name parameter metadata member is not valid. The content length for the element_name element must be at least minimum_number characters.

Explanation: The specified element does not contain enough characters.

System action: Processing stops.


---

CCQI407S The XML structure of the member_name parameter metadata member is not valid. The element_name element must occur at least minimum_number times.

Explanation: The specified element does not occur enough times.

System action: Processing stops.


---

CCQI408S The XML structure of the member_name parameter metadata member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: The specified attribute occurs too many times.

System action: Processing stops.


---

CCQI409S The XML structure of the member_name parameter metadata member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute does not occur enough times.

System action: Processing stops.

CCQI410S  The XML structure of the member_name parameter metadata member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: The specified attribute cannot have content.
System action: Processing stops.

CCQI411S  The XML structure of the member_name parameter metadata member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute is missing required content.
System action: Processing stops.

CCQI412S  The XML structure of the member_name parameter metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.
System action: Processing stops.

CCQI413S  The XML structure of the member_name parameter metadata member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The specified attribute in the parameter metadata member is unknown.
System action: Processing stops.

CCQI414S  The content of the member_name parameter metadata member is not valid because the value of the element_name element is incorrect. The value is value_name.

Explanation: The specified value for an element in the parameter metadata member is not valid.
System action: Processing stops.

CCQI415S  The content of the member_name parameter metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation: The specified value for an attribute in the parameter metadata member is not valid.
System action: Processing stops.

CCQI416S  The content of the member_name parameter metadata member is not valid because the data type of the element_name element is incorrect. The value is value_name.

Explanation: The specified data type value for an element in the parameter metadata member is not valid.
System action: Processing stops.

CCQI417S  The content of the member_name parameter metadata member is not valid because the data type of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation: The specified data type value for an attribute in the parameter metadata member is not valid.
System action: Processing stops.
CCQI420S  The XML structure of the member_name parameter metadata member is not valid. The element_name element is unknown for the overridden Db2 parameter.

Explanation:
System action:  Processing stops.

CCQI421S  The XML structure of the member_name parameter metadata member is not valid. The element_name element is unknown for the overridden LPAR parameter.

Explanation:
System action:  Processing stops.

CCQI422S  The XML structure of the member_name parameter metadata member is not valid. The attribute_name attribute in the element_name element is unknown for the overridden Db2 parameter.

Explanation:
System action:  Processing stops.

CCQI423S  The XML structure of the member_name parameter metadata member is not valid. The attribute_name attribute in the element_name element is unknown for the overridden LPAR parameter.

Explanation:
System action:  Processing stops.

CCQI450S  The member_name product parameter metadata member was not found in the data_set_name data set.

Explanation:  Tools Customizer could not find the specified product parameter metadata member.
System action:  Processing stops.


CCQI510W  The data_set_name data store data set does not exist.

Explanation:  The specified data store data set does not exist.
System action:  Processing continues.
User response:  Ensure that the data store data set exists.

CCQI511S  The data_set_name data store data set cannot be opened by using the disposition_type disposition.

Explanation:  The specified data store data set could not be opened with the specified disposition.
System action:  Processing continues.

CCQI512S  The data_set_name data store data set cannot be opened by using the option-type option.

Explanation:  The specified data store data set was unable to be opened with the specified option.
System action:  Processing stops.

CCQI600W  The XML structure of the member_name product customization parameter metadata member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation:  While determining if the product customization parameter metadata member is valid, the PL/I XML parser issued an exception warning code.
System action:  Processing continues.
User response:  See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

CCQI601S  The XML structure of the member_name product customization parameter metadata member is not valid. The PL/I XML parser issued the following exception error code: code_number.

Explanation:  While determining if the product
customization parameter metadata member is valid, the PL/I XML parser issued an exception error code.

**System action:** Processing continues.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI602S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. The `element_name` element is unknown.

**Explanation:** The specified product customization parameter metadata member contains an unknown element.

**System action:** Processing continues.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI603S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. Content is not allowed for the `element_name` element, but content was found.

**Explanation:** Content was found in an element that cannot contain content.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI604S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. Content is required for the `element_name` element, but content was not found.

**Explanation:** The specified element does not contain required content.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI605S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. The content length for the `element_name` element cannot exceed `maximum_number` characters.

**Explanation:** The specified element contains too many characters.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI606S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. The `element_name` element cannot occur more than `maximum_number` times.

**Explanation:** The specified element occurs too many times in the product customization parameter metadata member.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI607S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. The `element_name` element must occur at least `minimum_number` times.

**Explanation:** The specified element does not occur enough times in the product customization parameter metadata member.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI608S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. The `attribute_name` attribute in the `element_name` element cannot occur more than `maximum_number` times.

**Explanation:** The specified attribute occurs too many times in the product customization parameter metadata member.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

---

**CCQI609S**  
The XML structure of the `member_name` product customization parameter metadata member is not valid. The `attribute_name` attribute in the `element_name` element must occur at least `minimum_number` times.

**Explanation:** The specified attribute does not occur enough times in the product customization parameter metadata member.

**System action:** Processing stops.

**User response:** See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.
CCQI610S  The XML structure of the member_name product customization parameter metadata member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: Content was found in an element that cannot contain content.

System action: Processing stops.

CCQI611S  The XML structure of the member_name product customization parameter metadata member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute does not contain required content.

System action: Processing stops.

CCQI612S  The XML structure of the member_name product customization parameter metadata member is not valid. The content length for the attribute_name attribute in the element_name element cannot exceed maximum_number characters.

Explanation: The specified attribute contains too many characters.

System action: Processing stops.

CCQI613S  The XML structure of the member_name product customization parameter metadata member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The specified product customization parameter metadata member contains an unknown attribute.

System action: Processing stops.
CCQI650S  The XML structure of the member_name product customization parameter metadata member is not valid. The following value of the attribute_name attribute in the element_name element already exists: value_name.

Explanation: The specified value for an attribute already exists.

System action: Processing stops.


CCQI651S  The XML structure of the member_name product customization parameter metadata member is not valid. The parameter_name parameter refers to the following section, which was not found in the member_name product customization parameter metadata member: section-name.

Explanation: The specified section is not in the product customization parameter metadata member.

System action: Processing stops.


CCQI652S  The member_name product customization metadata member not valid. The default length for the element_name parameter element exceeds the length of the parameter. The default length is default_length, and the specified length is specified_length. The default length will be truncated accordingly.

Explanation: The specified length cannot be shorter than the default length.

System action: Processing stops.


CCQI653S  The content of the member_name product customization parameter metadata member is not valid. The value of the attribute_name attribute in the element_name element is not valid. The value of the attribute is value_name.

Explanation: The specified value of the attribute is not a valid value.

System action: Processing stops.


CCQI700W  The XML structure of the member_name solution pack metadata member is not valid. The PL/I XML parser issued the following exception warning code: code_number.

Explanation: While determining if the specified solution pack metadata member is valid, the PL/I XML parser issued an exception warning code.

System action: Processing continues.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the warning.

CCQI701S  The XML structure of the member_name solution pack metadata member is not valid. The PL/I XML parser issued the following exception error code: code_number.

Explanation: While determining if the specified solution pack metadata member is valid, the PL/I XML parser issued an exception error code.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the error.

CCQI702S  The XML structure of the member_name solution pack metadata member is not valid. The element_name element is unknown.

Explanation: The specified solution pack metadata member contains an unknown element.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the error.

CCQI703S  The XML structure of the member_name solution pack metadata member is not valid. Content is not allowed for the element_name element, but content was found

Explanation: Content was found in an element that cannot contain content.

System action: Processing stops.

CCQI704S The XML structure of the member_name solution pack metadata member is not valid. Content is required for the element_name element, but content was not found.

Explanation: The specified element does not contain required content.

System action: Processing stops.


CCQI705S The XML structure of the member_name solution pack metadata member is not valid. The content length for the element_name element cannot exceed maximum_number characters.

Explanation: The specified element contains too many characters.

System action: Processing stops.


CCQI706S The XML structure of the member_name solution pack metadata member is not valid. The element_name element cannot occur more than maximum_number times.

Explanation: The specified element occurs too many times.

System action: Processing stops.


CCQI707S The XML structure of the member_name solution pack metadata member is not valid. The element_name element must occur at least minimum_number times.

Explanation: The specified element does not occur enough times.

System action: Processing stops.


CCQI708S The XML structure of the member_name solution pack metadata member is not valid. The attribute_name attribute in the element_name element cannot occur more than maximum_number times.

Explanation: The specified attribute occurs too many times.

System action: Processing stops.


CCQI709S The XML structure of the member_name solution pack metadata member is not valid. The attribute_name attribute in the element_name element must occur at least minimum_number times.

Explanation: The specified attribute does not occur enough times.

System action: Processing stops.


CCQI710S The XML structure of the member_name solution pack metadata member is not valid. Content is not allowed for the attribute_name attribute in the element_name element, but content was found.

Explanation: The specified attribute cannot have content.

System action: Processing stops.


CCQI711S The XML structure of the member_name solution pack metadata member is not valid. Content is required for the attribute_name attribute in the element_name element, but content was not found.

Explanation: The specified attribute is missing content.

System action: Processing stops.

The XML structure of the member_name solution pack metadata member is not valid. The content length for the attribute_name attribute in the element_name element cannot exceed maximum_number characters.

Explanation: The specified attribute contains too many characters.

System action: Processing stops.


The XML structure of the member_name solution pack metadata member is not valid. The attribute_name attribute in the element_name element is unknown.

Explanation: The specified attribute in the solution pack metadata member is unknown.

System action: Processing stops.


The XML structure of the member_name solution pack metadata member is not valid because the value of the attribute_name attribute in the element_name element is incorrect. The value is value_name.

Explanation: The specified value of the attribute is not a valid value.

System action: Processing stops.


The XML structure of the member_name solution pack metadata member is not valid because the value of the element_name element is incorrect. The value is value_name.

Explanation: The specified value of the element is not a valid value.

System action: Processing stops.


The XML structure of the member_name solution pack metadata member is not valid. The msg element is required for the component_name component that is not customizable.

Explanation: The msg element is required for the specified component, which cannot be customized by using Tools Customizer.

System action: Processing stops.


The solution pack metadata member was not found in the library_name metadata library.

Explanation: Tools Customizer could not find the solution pack metadata member in the specified library.

System action: Processing stops.

The version in the library_name solution pack metadata library is different than the version in the library_name component metadata library. The name of the pack is pack_name, and the name of the component is component_name.

Explanation: The version in the solution pack metadata library does not match the version in the component metadata library.

System action: Processing stops.


The release in the library_name solution pack metadata library is different than the release in the library_name component metadata library. The name of the pack is pack_name, and the name of the component is component_name.

Explanation: The release in the solution pack metadata library does not match the release in the component metadata library.

System action: Processing stops.

User response: See the Enterprise PL/I for z/OS Programming Guide for more information about the exception warning code.

The modification level in the library_name solution pack metadata library is different than the modification level in the library_name component metadata library. The name of the pack is pack_name, and the name of the component is component_name.

Explanation: The modification level in the solution pack metadata library does not match the modification level in the component metadata library.

System action: Processing stops.


The XML structure of the member_name discover parameter metadata member is not valid. The element_name element is unknown.

Explanation: The specified element in the discover parameter metadata member is unknown.

System action: Processing stops.


The XML structure of the member_name discover parameter metadata member is not valid. Content is not allowed for the element_name element, but content was found.

Explanation: The specified element in the discover parameter metadata member is unknown.

System action: Processing stops.


The XML structure of the member_name discover parameter metadata member is not valid. The command_name line command is not valid.

Explanation: The specified line command is not valid.

System action: Processing continues.

User response: Specify a valid line command on the panel.
CCQO004S  The XML structure of the member_name
discover parameter metadata member is
not valid. Content is required for the
element_name element, but content was
not found.

Explanation: The specified element is missing required
content.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.

CCQO005S  The XML structure of the member_name
discover parameter metadata member is
not valid. The content length for the
element_name element cannot exceed
maximum_number characters.

Explanation: The specified element contains too many
characters.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.

CCQO006S  The XML structure of the member_name
discover parameter metadata member is
not valid. The element_name element
must occur more than maximum_number times.

Explanation: The specified element occurs too many
times.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.

CCQO007S  The XML structure of the member_name
discover parameter metadata member is
not valid. The element_name element
must occur at least minimum_number times.

Explanation: The specified element does not occur
enough times.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.

CCQO008S  The XML structure of the member_name
discover parameter metadata member is
not valid. The attribute_name attribute in
the element_name element cannot occur
more than maximum_number times.

Explanation: The specified attribute occurs too many
times.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.

CCQO009S  The XML structure of the member_name
discover parameter metadata member is
not valid. The attribute_name attribute in
the element_name element must occur at
least minimum_number times.

Explanation: The specified attribute does not occur
enough times.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.

CCQO010S  The XML structure of the member_name
discover parameter metadata member is
not valid. Content is not allowed for the
attribute_name attribute in the
element_name element, but content was
found.

Explanation: The specified attribute cannot contain
content.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.

CCQO011S  The XML structure of the member_name
discover parameter metadata member is
not valid. Content is required for the
attribute_name attribute in the
element_name element, but content was
not found.

Explanation: The specified attribute requires content.
System action: Processing stops.
User response: See “Gathering diagnostic
information” on page 470. Contact IBM Software
Support.
CCQO012S The XML structure of the `member_name` discover parameter metadata member is not valid. The content length for the `attribute_name` attribute in the `element_name` element in the cannot exceed `maximum_number` characters.

Explanation: The specified attribute contains too many characters.

System action: Processing stops.


CCQO0016S The content of the `member_name` discover parameter metadata member is not valid because the data type of the `element_name` element is incorrect. The value is `value_name`.

Explanation: The specified data type value for an element in the discover parameter metadata member is not valid.

System action: Processing stops.


CCQO0017S The content of the `member_name` product parameter metadata member is not valid because the data type of the `attribute_name` attribute in the `element_name` element is incorrect. The value is `value_name`.

Explanation: The specified data type value for an attribute in the product parameter metadata member is not valid.

System action: Processing stops.


CCQO0050S The `data_set_name` Discover REXX EXEC data set could not be initialized or was not found.

Explanation: Tools Customizer could not find or could not initialize the specified Discover REXX EXEC data set.

System action: Processing stops.

User response: Ensure that the Discover REXX EXEC is specified correctly.

CCQO0051W The `data_sharing_group_ID` data sharing group ID cannot contain more than four characters.

Explanation: The specified data sharing group ID contains too many characters.

System action: Processing continues.

User response: Ensure that the specified data sharing group ID does not exceed four characters.

CCQO0052S The `REXX_EXEC_name` Discover REXX EXEC was not found in the `data_set_name` Discover data set.

Explanation: Tools Customizer could not find the Discover REXX EXEC in the specified data set.
CCQO053W The LPAR_name LPAR name cannot contain more than eight characters.
Explanation: The specified LPAR name contains too many characters.
System action: Processing continues.
User response: Ensure that the specified LPAR name does not exceed eight characters.

CCQO054W The subsystem_ID Db2 SSID cannot contain more than four characters. The record was not processed.
Explanation: The specified Db2 SSID contains too many characters.
System action: Processing continues.
User response: Ensure that the specified Db2 SSID does not exceed four characters.

CCQO055W The parameter_name Db2 group attach name parameter in the record_name Discover record, but a Db2 group attach name was not specified. The record was not processed.
Explanation: The Discover record contains a data sharing group parameter, but a Db2 group attach name was not specified.
System action: Processing continues.
User response: Ensure that information is specified correctly on the Discover Customized Product Information panel.

CCQO056W The parameter_name Db2 parameter in the record_name Discover record did not have a Db2 group attach name or a Db2 SSID. The record was not processed.
Explanation: The Discover record did not have a Db2 group attach name or a Db2 subsystem ID in the Db2 parameter.
System action: Processing continues.
User response: Ensure that information is specified correctly on the Discover Customized Product Information panel.

CCQO057W The Discover EXEC could not find the parameter_name parameter in the metadata for the product to be customized. The record was not processed.
Explanation: The specified parameter could not be found in the metadata for the product to be customized.
System action: Processing continues.
User response: Ensure that information is specified correctly on the Discover Customized Product Information panel.

CCQO058W The parameter_name product parameter name in the record_name Discover record does not start with CCQ_LPAR_, CCQ_DB2_, or CCQ_PRD_. The record was not processed.
Explanation: The parameter in the record does not start with CCQ_DB2_, CCQ_LPAR_, or CCQ_PRD_.
System action: Processing continues.

CCQO059W The parameter_name product parameter cannot contain more than 72 characters. The record was not processed.
Explanation: The specified product parameter contains too many characters.
System action: Processing continues.
User response: Ensure that the specified product parameter does not exceed 72 characters.

CCQO060W The record_name Discover record from the REXX EXEC output must start with the following record type: record_type. The record was not processed.
Explanation: A Discover record from the REXX EXEC output must start with the specified Db2 record type.
System action: Processing continues.

CCQO061I If you do not have a previously customized version of the product, do not run the Discover EXEC. Press END to go to the Customizer Workplace panel.
Explanation: This message is issued when you customize a product for the first time. It prompts you to use the Discover EXEC to discover data from a previous customization of the specified product.
System action: Processing continues.
User response:
Tip: Using the Discover EXEC saves time and reduces errors that can occur when parameters are specified manually. If you want to use the Discover EXEC, specify the required information on the Discover Customized Product Information panel. Otherwise, press End to continue without discovering data from a previous customization of the product.

CCQ0062W The Discover EXEC could not find the following parameter_name parameter in the Db2 metadata. The record was not processed.

Explanation: The specified parameter is missing in the Db2 metadata.

System action: Processing continues.

User response: If this parameter is required, contact IBM Software Support.

CCQ0064W The Discover record did not have a parameter name. The record was not processed.

Explanation: A parameter name was missing in the Discover record.

System action: Processing continues.


CCQ0065W The value for the parameter_name parameter is ignored because it has more than maximum_number characters, which is the maximum length that is defined in the metadata. The value is parameter_value.

Explanation: The specified value exceeded the maximum allowed length, which was defined in the metadata. Tools Customizer truncated the extra characters.

System action: Processing continues.


CCQ0066W The record_name Discover record from the Discover REXX EXEC output does not have a parameter value. The record was not processed.

Explanation: The Discover record was missing a parameter value from the Discover EXEC output.

System action: Processing continues.

User response: Ensure that information was specified correctly on the Discover Customized Product Information panel.

CCQ0067W The parameter_name parameter is defined in the metadata to support one value, but more than one value was found. The last value was used.

Explanation: The definition of the parameter in the metadata supports one value, but more than one value was specified. Only the last value was used.

System action: Processing continues.

User response: Ensure that information was specified correctly on the Discover Customized Product Information panel.

CCQ0068W The value of the parameter_name parameter is ignored because the parameter is defined as internal=true. The value is value_name.

Explanation: The specified value of the parameter is ignored because it is defined as internal=true.

System action: Processing continues.

User response: Ensure that information was specified correctly on the Discover Customized Product Information panel.

CCQ0069W The Discover EXEC did not find the parameter_name parameter in the LPAR metadata. The record was not processed.

Explanation: The specified parameter is missing from the LPAR metadata.

System action: Processing continues.

User response: Ensure that information was specified correctly on the Discover Customized Product Information panel.

CCQ0070W The record_type Discover record contains an incorrect delimiter between the Environment section and the Data section. The record was not processed.

Explanation: Tools Customizer found an incorrect delimiter between the Environment section and the Data section.

System action: None.

User response: No action is required.

CCQ0071W The member_name member could not be found in the data_set_name Discover data set.

Explanation: Tools Customizer could not find the specified Discover data set.
System action: None.
User response: No action is required.

CCQO072S  The member_name discover metadata member was not found in the data_set_name metadata data set.

Explanation: Tools Customizer could not find the specified metadata member in the data set.
System action: Processing stops.

CCQO073E  The member_name discover metadata member is not valid because the default length for the element_name parameter element exceeds the length of the parameter. The default length is default_length, and the specified length is specified_length. The default length will be truncated accordingly.

Explanation: The default length for the specified parameter element is longer than the parameter.
System action: Processing continues.
User response: No action is required.

CCQO074S  The content of the member_name discover metadata member is not valid. The value of the attribute_name attribute in the element_name element is not valid. The value of the attribute is value_name.

Explanation: The specified value is not valid.
System action: Processing continues.

CCQO075W  The configuration_ID configuration ID in the record_name Discover record is incorrect. The record was not processed.

Explanation: The specified configuration ID is not correct.
System action: Processing continues.
User response: No action is required.

CCQO076W  The configuration_ID configuration ID cannot contain more than maximum_number characters. The record was not processed.

Explanation: The specified configuration ID contains too many characters.
System action: Processing continues.
User response: No action is required.

CCQO077S  The discover metadata member was not found in the data_set_name component data set that is part of the data_set_name pack.

Explanation: The discover metadata member was not found in the specified component data set.
System action: Processing stops.

CCQO078I  Additional configurations were discovered and saved in the data store. All Db2 entries associated with this configuration are listed.

System action: None.
User response: No action is required.

CCQP000E  The value of the mode_name Db2 mode is not valid for the level_name Db2 level.

Explanation: The specified Db2 mode is not valid for the Db2 level.
System action: Processing stops.
User response: Specify a valid Db2 mode for the Db2 level.

CCQP001E  The value of the mode_name Db2 mode is missing.

Explanation: The specified Db2 mode is not defined.
System action: Processing stops.
User response: Specify a value for the Db2 mode.

CCQP002E  The value of the mode_name Db2 level is missing.

Explanation: The specified Db2 level is not defined.
System action: Processing stops.
User response: Specify a value for the Db2 level.
The value of the `level_name` Db2 level is not valid.

**Explanation:** The specified Db2 level does not have a valid name.

**System action:** Processing stops.

**User response:** Specify a valid value for the Db2 level.

---

The parameter name parameter does not exist in the CCQ$DB2 Db2 parameter metadata member.

**Explanation:** The CCQ$DB2 Db2 parameter metadata member does not contain the specified parameter.

**System action:** Tools Customizer prompts for the correct data set name.

**User response:** Specify a data set name in the correct format.

---

The value of the `subsystem_ID` Db2 SSID is missing.

**Explanation:** The specified Db2 SSID is not defined.

**System action:** Processing stops.

**User response:** Specify a valid value for the Db2 SSID.

---

The value of the `group_attach_name` Db2 group attach name is missing.

**Explanation:** The specified Db2 group attach name is not defined.

**System action:** Processing stops.

**User response:** Specify a valid Db2 group attach name.

---

Specify a valid metadata library. Each qualifier of the library must start with an alphabetic character and must be 1-8 alphanumeric characters. The library name must be 1-44 characters.

**Explanation:** The metadata library was not specified in the correct format. The high-level qualifier must contain alphanumeric characters, and the first character cannot be numeric. The name cannot contain wildcard characters, such as asterisks (*) and percent signs (%).

**System action:** Tools Customizer prompts for the correct library name.

**User response:** Specify a library in the correct format.

---

Specify a valid data set name. The data set must be in the following format:

```
HLQ.SxxxSAMP
```

**Explanation:** The specified data set name was not specified in the correct format.

**System action:** None.

**User response:** Specify the data set name in the following format: `HLQ.SxxxSAMP`, where `xxx` is the three-character prefix for the product.

---

The data set name that was specified for the metadata sample library is not valid. The data set must be in the following format: `HLQ.SxxxSAMP`.

**Explanation:** The data set does not exist, or the data set name was written in the incorrect format. The high-level qualifier must contain alphanumeric characters, and the first character cannot be numeric. The name cannot contain wildcard characters, such as asterisks (*) and percent signs (%).

**System action:** Tools Customizer prompts for the correct data set name.

**User response:** Specify a data set name in the correct format.

---

The data set name that was specified for the metadata library was not found.

**Explanation:** The data set does not exist, or the data set name was written in the incorrect format. The high-level qualifier must contain alphanumeric characters, and the first character cannot be numeric. The name cannot contain wildcard characters, such as asterisks (*) and percent signs (%).

**System action:** Tools Customizer prompts for the correct data set name.

**User response:** Specify a data set name in the correct format.

---

The data set name that was specified for the library name metadata library cannot be opened.

**Explanation:** Tools Customizer could not open the data set.

**System action:** Tools Customizer prompts for an available data set.

**User response:** Ensure that the specified data set is available for Tools Customizer to open it.

---

The data set name that was specified for the metadata library is not valid because the data set is empty.

**Explanation:** The specified data set is empty.

**System action:** Tools Customizer prompts for an available data set.

**User response:** Ensure that the specified data set is not being used.
User response: Ensure that the specified data set is available for Tools Customizer to open it.

CCQQ01IE The library_name metadata library for the component that is part of the library_name pack was not found in the catalog. The name of the pack is pack_name, and the name of the component is component_name.

Explanation: The specified metadata library is not in the catalog.

System action: None.

User response: Specify another metadata library.

CCQQ012E The library_name metadata library for the component that is part of the library_name pack cannot be opened.

Explanation: The specified metadata library cannot be opened.

System action: None.

User response: Ensure that the name of the library is specified correctly.

CCQS000I Tools Customizer is being invoked for the first time or the previous ISPF session ended before Tools Customizer was exited. In both cases, the fields on this panel are populated with default values. Review these default values or specify new values to be used to customize products or packs.

Explanation: When you customize a stand-alone product or a solution pack for the first time, or when an ISPF session unexpectedly ends before the ISPF profile is saved, you must specify or review your Tools Customizer user settings.

System action: Processing stops.

User response: Review and accept the default settings, or specify new settings.

CCQS001E The following command is not valid: command_name.

Explanation: The specified command is not a valid command on the panel.

System action: Processing stops.

User response: Specify a valid command.

CCQS002W The data_set_name Discover data set could not be found.

Explanation: Tools Customizer could not find the specified data set.

System action: The data set will be allocated, and processing continues.

User response: Ensure that the data set name is specified correctly because the data set will be allocated with this name after the values are saved.

CCQS003W The data_set_name Discover data set was not found so it was created.

Explanation: Tools Customizer could not find the specified data set.

System action: Processing continues.

User response: Ensure that the data set name is specified correctly.

CCQS004I The settings were saved.

Explanation: The settings that you changed were saved.

System action: Processing continues.

User response: No action is required.

CCQS006W The length of a qualifier for the data_set_name customization library data set exceeds 26 characters.

Explanation: The qualifier for the customization library data set is too long. The qualifier cannot exceed 26 characters.

System action: Processing continues.

User response: Specify a qualifier that is 26 characters or less.

CCQS007E The discover data set data_set_name could not be opened with the option-type option.

Explanation: The specified option could not open the Discover data set.

System action: None.

User response: Specify a data set to which you have WRITE access.

CCQS008E The Discover data set data_set_name exists on a different volume.

Explanation: The specified Discover data set must exist on the same volume as where it was created.

System action: Processing continues.
User response: Specify a different Discover data set name.

CCQS010E The customization library qualifier is not valid.
Explanation: The customization library qualifier that was specified is not valid.
System action: None.
User response: Specify a valid qualifier for the customization library.

CCQS011E The group attach option is not valid.
Explanation: The group attach option that was specified is not valid.
System action: None.
User response: Specify a valid option for the group attach option.

CCQS012E The Tools Customizer metadata library is not valid.
Explanation: The metadata library that was specified is not a valid data set.
System action: None.
User response: Specify a valid data set for the metadata library.

CCQS013E The Discover data set is not valid.
Explanation: The Discover data set that was specified is not a valid data set.
System action: None.
User response: Specify a valid Discover data set.

CCQS014E The data store data set is not valid.
Explanation: The data set that was specified is not a valid data set.
System action: None.
User response: Specify a valid data store data set.

CCQS015E Tools Customizer is already running.
Explanation: A session of Tools Customizer is already running in your environment. Only one Tools Customizer session is allowed.
System action: None.
User response: The trace data set is being used. Free the trace data set, and start Tools Customizer again.

CCQS018E Information on the first line of the job card exceeds 57 characters.
Explanation: The first line of the job card can contain only 57 characters. This character limit includes a continuation character.
System action: Tools Customizer clears the first line of the job card.
User response: Specify information that does not exceed 57 characters on the first line of the job card.

CCQS019E The required trace data set, data_set_name, is currently not accessible.
Explanation: The trace data set must be accessible.
System action: Processing stops.
User response: Ensure that the trace data set is accessible.

CCQS020E An error occurred while the customization library data set was being created. ALTER authority on the high-level qualifier for the customization library data set is required.
Explanation: To create the customization library data set, ALTER authority on the specified high-level qualifier must be granted.
System action: None.
User response: Ensure that ALTER authority for the specified customization library data set is granted.

CCQS021E The value value_name in the field that contains the cursor position is not valid.
Explanation: The specified value is not valid.
System action: None.
User response: Specify a valid value.

CCQS022E An error occurred while the customization library data set was being opened. UPDATE authority on the high-level qualifier for the customization library data set is required.
Explanation: To open the customization library data set, UPDATE authority on the specified high-level qualifier must be granted.
System action: None.
User response: Ensure that UPDATE authority for the specified customization library data set is granted.
**CCQS023E**  
An error occurred while the customization library data set was being opened. UPDATE authority on the high-level qualifier for the customization library data set is required.

**Explanation:**  
To open the customization library data set, UPDATE authority on the specified high-level qualifier must be granted.

**System action:**  
None.

**User response:**  
Ensure that UPDATE authority for the specified customization library data set is granted, or specify a different high-level qualifier for the customization library data set on the Tools Customizer Settings panel.

---

**CCQS024E**  
An error occurred while the customization library data set was being created. ALTER authority on the high-level qualifier for the customization library data set is required.

**Explanation:**  
To create the customization library data set, ALTER authority on the specified high-level qualifier must be granted.

**System action:**  
None.

**User response:**  
Ensure that ALTER authority for the specified customization library data set is granted, or specify a different high-level qualifier for the customization library data set on the Tools Customizer Settings panel.

---

**CCQS025I**  
The display options were saved.

**System action:**  
None.

**User response:**  
No action is required.

---

**CCQS026E**  
The customization library data set *data_set_name* could not be opened because the requester does not have UPDATE authority on this data set.

**Explanation:**  
Users must have UPDATE authority to open the customization library data set. Users must have UPDATE authority to open the customization library data set.

**System action:**  
None.

**User response:**  
Ensure that UPDATE authority for the specified customization library data set is granted or specify a different high-level qualifier for the customization library data set on the Tools Customizer Settings panel.

---

**CCQS027E**  
The customization library data set *data_set_name* could not be created because the requester does not have ALTER authority on this data set.

**Explanation:**  
To create the customization library data set, ALTER authority on the data set must be granted.

**System action:**  
Processing stops.

**User response:**  
Ensure that ALTER authority for the specific customization library data set is granted, or specify a different high-level qualifier for the customization library data set on the Tools Customizer Settings panel.

---

**CCQS029E**  
The customization library data set is not valid. Enter a valid data set name or use the Tools Customizer default: *data_set_name*.

**Explanation:**  
The specified data set is invalid.

**System action:**  
Processing stops.

**User response:**  
Specify a valid data set name.

---

**CCQS030E**  
The following command is not a valid CREATE statement: *command_statement*.

**Explanation:**  
The specified CREATE command statement is invalid because it contains blanks or alphabetic characters.

**System action:**  
Processing stops.

**User response:**  
Specify a valid CREATE command statement. The correct syntax is CREATE *nn*, where *nn* is 1 - 99.

---

**CCQS031E**  
The following command is not a valid CREATE statement: *command_statement*.

**Explanation:**  
The specified CREATE command statement is invalid because it contains either 0 or a number greater than 99.

**System action:**  
Processing stops.

**User response:**  
Specify a valid CREATE command statement. The correct syntax is CREATE *nn*, where *nn* is 1 - 99.

---

**CCQS033E**  
A user profile cannot be copied into the same user profile

**Explanation:**  
The specified data set cannot be copied into user’s own user profile.

**System action:**  
Processing stops.

**User response:**  
Enter a different data set name.
The shared user profile data set `data_set_name` could not be created because the requester does not have UPDATE authority on this data set or because the data set already exists in another volume serial.

**Explanation:** To create a shared user profile data set, the requester must have update authority on the data set, and the specified data set name must be unique.

**System action:** Processing stops.

**User response:** Ensure that the requester has UPDATE authority on the data set and ensure that the data set name is unique.

The specified data set already has a user profile. Specify a different data set, or press Enter again to replace the existing user profile.

**Explanation:** Pressing Enter overwrites the previous user profile for the specified data set with user's own user profile.

**System action:** Processing stops.

**User response:** Specify a different data set name.

The customization library `data_set_name` already exists in volume and cannot be created in a different volume. Enter a different customization library name.

**Explanation:** The same data set name cannot exist in a different volume.

**System action:** Processing stops.

**User response:** Specify a different data set name.

The data set name was either not specified or invalid.

**Explanation:** The data set name specified does not follow the IBM data set name convention.

**System action:** Processing stops.

**User response:** Specify a valid data set name.

The specified data set cannot be used.

**Explanation:** The specified data sets contain information that supports Tools Customizer, but this data set cannot be used.

**System action:** Processing stops.

**User response:** Specify a different data set.

The specified data set has an invalid record format.

**Explanation:** The specified data set should be saved as a different record format. For example, the record format should be FB (Formated Block) but it is set to VB (Variable Block).

**System action:** Processing stops.

**User response:** Specify a valid record format.

The product configuration ID `copied_configuration_ID` was successfully copied from `configuration_ID`.

**Explanation:** The specified configuration ID was copied.

**System action:** None.

**User response:** No action is required.

The command name `command_name` line command was specified more than once, which is not allowed.

**Explanation:** The specified line command cannot be specified more than one time.

**System action:** Processing stops.

**User response:** Specify the line command only once.

The configuration ID `configuration_ID` already exists. Specify a different configuration ID.

**Explanation:** The specified configuration ID exists.

**System action:** Processing stops.

**User response:** Ensure that the specified configuration ID is unique.

The product configuration ID `configuration_ID` was created.

**Explanation:** The specified configuration ID was created.

**System action:** None.

**User response:** No action is required.

The product configuration ID `configuration_ID` was removed.

**Explanation:** The specified configuration ID was removed.

**System action:** None.

**User response:** No action is required.
CCQT005E The product configuration ID configuration_ID is not valid. The product configuration ID cannot contain a colon (:).

Explanation: The specified configuration ID contains a colon (:), but a colon is not valid.

System action: Processing stops.

User response: Specify a configuration ID that does not contain a colon.

CCQT006E The configuration_ID configuration ID exists. Specify a different configuration ID.

Explanation: The specified configuration ID exists.

System action: Processing stops.

User response: Specify another configuration ID.

CCQT007E The configuration_ID configuration ID exists but was removed from the list of configurations. To use this configuration ID, you must restore it.

Explanation: The specified configuration ID exists but was removed from the list of available configuration.

System action: Processing stops.

User response: Specify another configuration ID. To restore the specified configuration ID, issue the CREATE command, and specify the same configuration ID again.

CCQT008E The configuration_ID configuration ID exceeds maximum_number characters.

Explanation: The specified configuration ID contains too many characters.

System action: Processing stops.

User response: Specify another configuration ID that does not exceed the maximum number of characters that was set by Db2 Change Accumulation Tool.

CCQT010I Create request for configuration_ID configuration was cancelled by user.

Explanation: The request to create the specified configuration was canceled.

System action: Processing stops.

User response: No action is required.

CCQT011I The configuration_ID configuration was not copied.

Explanation: The specified configuration was not copied.

System action: Processing stops.

User response: No action is required.

CCQT012I The configuration_ID configuration was not removed.

Explanation: The specified configuration was not removed.

System action: Processing stops.

User response: No action is required.

CCQT013I None of the configurations were copied or removed. All of the previously selected configurations are deselected.

Explanation: The selected configurations were not copied or removed, and they are deselected.

System action: Processing stops.

User response: No action is required.

CCQT014E Specify Y or N and press Enter to continue, or press End to cancel.

Explanation: A function requires input.

System action: Processing stops.

User response: To continue, specify Y or N and press Enter. Otherwise, press End to cancel.

CCQT015E The command_name command is not allowed during the process of "Select" configuration line command.

Explanation: The specified command is not allowed while the line command for selecting configurations is processing.

System action: Processing stops.

User response: Remove the specified line command.

CCQT016I The configuration_ID configuration was not created.

Explanation: The specified configuration was not created.

System action: Processing stops.

User response: No action is required.
The configuration_ID configuration was not copied.

Explanation: The specified configuration was not copied.
System action: Processing stops.
User response: No action is required.

Specify Y or N, and press Enter.

Explanation: A function requires input.
System action: Processing stops.
User response: To continue, specify Y or N, and press Enter.

The select configuration_ID configuration process ended.

Explanation: The select process for the specified configuration is finished.
System action: Processing stops.
User response: No action is required.

The configuration_ID configuration was not created because the data store was not accessible.

Explanation: The specified configuration was not created because the data store could not be accessed.
System action: Processing stops.
User response: Ensure that the data store is accessible and create the configuration again.

The configuration_ID configuration was not copied because the data store was not accessible.

Explanation: The specified configuration was not copied because the data store could not be accessed.
System action: Processing stops.
User response: Ensure that the data store is accessible and copy the configuration again.

The configuration_ID configuration was not updated.

Explanation: The specified configuration was not updated because the edit process was canceled.
System action: Processing stops.
User response: No action is required.

The product configuration ID has been updated from edit_from_id to edit_to_id.

System action: Processing continues.
User response: No action is required.

The product configuration ID has been updated from edit_from_id to edit_to_id, and the description has been updated from edit_from_des to edit_to_des.

System action: Processing continues.
User response: No action is required.

The product configuration description has been updated from edit_from_des to edit_to_des.

System action: Processing continues.
User response: No action is required.

Product_name has already been customized by using values from data_set_name data store data set. Switch to the specified data store data set to continue customizing this product.

Explanation: The specified product was customized by using values from the specified data store data set.
System action: Processing stops.
User response: Use the specified data store data set to continue customizing the product.

Component_name has already been customized by using values from data_set_name data store data set. Switch to the specified data store data set to continue customizing this component.

Explanation: The specified component was customized by using values from the specified data store data set.
System action: Processing stops.
User response: Use the specified data store data set to continue customizing the component.

Product_name was not found.

Explanation: The specified product was not found.
System action: Processing stops.
User response: Specify another product.
Gathering diagnostic information

Before you report a problem with Db2 Change Accumulation Tool to IBM Software Support, you need to gather the appropriate diagnostic information.

Procedure

Provide the following information for all Db2 Change Accumulation Tool problems:

- A clear description of the problem and the steps that are required to re-create the problem
- All messages that were issued as a result of the problem
- Product release number and the number of the last program temporary fix (PTF) that was installed
- The version of DB2/IMS that you are using and the type and version of the operating system that you are using
- In addition to the number of the last program temporary fix (PTF), provide any relevant authorized program analysis reports (APARs) that were applied. APARs can be determined by using the DISPLAY MEPL command as follows:
  1. On the Db2 Change Accumulation Tool main menu, enter DISPLAY MEPL in the Option line and press Enter.
  2. Provide a data set member name and job cards and press Enter. The job is submitted to the internal reader. When the job completes the job’s SYSOUT DD will contain a list of each Db2 Change Accumulation Tool module and its current maintenance level.

Provide additional information based on the type of problem that you experienced:

For online abends, provide the following information:
- A screen capture of the panel that you were using when the abend occurred
- The job log from the TSO session that encountered the abend
- The job log from the server
- A description of the task that you were doing before the abend occurred

For errors in batch processing, provide the following information:
- The complete job log
- Print output
- Contents of the data sets that were used during the processing

For problems with the Tools Customizer trace data set name:
If you cannot allocate the trace data set, the trace data set runs out of space, or IBM Software Support asks for it, you will need to identify the name of the trace data set. The name of the trace data set depends on the prefix setting in the TSO profile. To identify the name of the trace data set, you must know the prefix setting.
- If PREFIX is set, the name of the trace data set is prefix.CCQ.TRACE, where prefix is the TSO prefix that you specified in the profile.
- If NOPREFIX is set, the name of the trace data set is user_ID.CCQ.TRACE, where user_ID is your TSO user ID.
Restrictions for online compression dictionary building

When performing online compression dictionary building, the dictionary pages might follow one or more pages with compressed rows. Db2 Change Accumulation Tool can still process table spaces and image copies with this condition, but the image copies it produces will have the dictionary pages in this same order it encountered them.

This causes an error condition for any utility that requires the dictionary pages to appear before any pages with compressed row data. One such utility is the DB2 unload utility which generates a message of the following format:

DSNU1232I ssid time DSNUULCA - COMPRESSED ROW IS IGNORED BECAUSE THE DICTIONARY IS NOT AVAILABLE FOR TABLE table name

The image copy utility attempts to bypass this problem by writing the compression dictionary pages to the image copy data set out of order (in terms of page number) so that they appear before the data pages with compressed rows for utilities such as unload. Because Db2 Change Accumulation Tool operates sequentially, the pages must be sorted in page number order in a selected image copy, which pushes the compression dictionary pages back after one or more data pages with compressed rows. Db2 Change Accumulation Tool tool creates an image copy in page number order. REORGing the object reconstructs the compression dictionary at the beginning of the image copy, both in terms of page number and position. In order to for this scenario to work with Db2 Change Accumulation Tool, the object must be reorged.

Abend in module GGC$DCVT when trying to start Db2 Change Accumulation Tool

Some users can experience an abend in module GGC$DCVT when trying to start up Db2 Change Accumulation Tool.

Db2 Change Accumulation Tool utilizes above the bar storage (storage above the 2-gigabyte bar). To control the amount of real and auxiliary storage that an address space can use for memory objects at one time, your site may have established an installation default MEMLIMIT that sets the total number of usable virtual pages above the bar for a single address space. If the default is not sufficient or if MEMLIMIT is not set, the abend will occur.

Note: Either an abend 0C4 or abend U0064 will occur, depending on the maintenance level of Db2 Change Accumulation Tool.

PK84094 contains a fix in which Db2 Change Accumulation Tool issues error messages with abend U0064 (abend 0C4 will not occur anymore). This APAR does not prevent the abend U0064.

The abend may be prevented by setting MEMLIMIT in one of the following ways:

- An installation default can be set on the MEMLIMIT parm in the SMFPRMxx PARMLIB member
- The SET SMF or SETSMF commands can be issued
- The MEMLIMIT parm can be added in the logon proc TSO JCL or the job JCL
- MEMLIMIT may be also specified in a IEFUSI exit routine; if so, it overrides all other MEMLIMIT settings
It is recommended that 2 gigabytes is specified for the MEMLIMIT parameter. Above the bar storage is held only as long as it is needed by Db2 Change Accumulation Tool and is released immediately after a job or process is complete.

Refer to the IBM z/OS documentation for the appropriate version of z/OS for detailed information about MEMLIMIT.

Tools Customizer troubleshooting

Use this information to diagnose and correct problems that you experience with Tools Customizer.

Gathering diagnostic information

Before you report a problem with Tools Customizer to IBM Software Support, you need to gather the appropriate diagnostic information.

Procedure

Provide the following information for all Tools Customizer problems:
• A clear description of the problem and the steps that are required to re-create the problem
• Relevant screen captures
• All messages that were issued as a result of the problem
• Product release number and the number of the last program temporary fix (PTF) that was installed
• The version of Db2 that you are using and the type and version of the operating system that you are using
• The Tools Customizer trace data set
• The Tools Customizer data store data set and the high_level_qualifier.SCCQTENU data set

Determining the trace data set name

You will need to identify the name of the trace data set if you cannot allocate the trace data set, the trace data set runs out of space, or IBM Software Support asks for it.

The name of the trace data set depends on the prefix setting in the TSO profile. To identify the name of the trace data set, you must know the prefix setting.
• If PREFIX is set, the name of the trace data set is prefix.CCQ.TRACE, where prefix is the TSO prefix that you specified in the profile.
• If NOPREFIX is set, the name of the trace data set is user_ID.CCQ.TRACE, where user_ID is your TSO user ID.
Chapter 11. Reference

Reference information supports the tasks that you must complete to install, customize, and use Db2 Change Accumulation Tool.

What's new in previous editions

This topic summarizes significant enhancements and changes to previous editions of Db2 Change Accumulation Tool documentation.

Previous updates - September, 2019

<table>
<thead>
<tr>
<th>Description</th>
<th>Related APARs / PTFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Db2 Change Accumulation Tool now supports a new keyword, XLAT_DROPPED_RECOVER. This enhancement allows users to do the following:</td>
<td>PH11193</td>
</tr>
<tr>
<td>• Recover data from dropped objects for a specified point in time</td>
<td></td>
</tr>
<tr>
<td>• Re-create all data from a dropped object as a new object using the same name or a new name.</td>
<td></td>
</tr>
<tr>
<td>For more information, see &quot;Recovering a dropped object using XLAT_DROPPED_RECOVER&quot; on page 511</td>
<td></td>
</tr>
<tr>
<td>Db2 Change Accumulation Tool now supports sliding scale allocation. For more information, see &quot;Support for sliding scale allocation&quot; on page 17</td>
<td>PI99482, PH02913</td>
</tr>
<tr>
<td>A new keyword, XLAT_IN_DSN_INLINE, has been added for use when the starting image copy for an OBIDXLAT is an inline image copy. For more information, see &quot;Db2 Change Accumulation Tool syntax definitions&quot; on page 190 and &quot;Db2 Change Accumulation Tool syntax diagram&quot; on page 214</td>
<td>PI97654</td>
</tr>
<tr>
<td>Maintenance considerations have been noted for APAR PI91130, a cumulative APAR that includes all maintenance to-date since base code. For more information, see &quot;Maintenance considerations&quot; in &quot;Mainframe operating system and environment&quot; on page 26</td>
<td>PI91130</td>
</tr>
</tbody>
</table>

SC19-3776-02 - May 2017

**Support for Large Block Interface (LBI) format**
Db2 Change Accumulation Tool provides the ability to read data sets that are stored using the Large Block Interface (LBI) format.

**Support for new CHECK_DATA keyword**
The new CHECK_DATA keyword has been introduced to Db2 Change Accumulation Tool to enable you to specify if and when to check data page integrity.

**Allocate output data set on OBIDXLAT when output data set does not exist**
Db2 Change Accumulation Tool now provides the ability to allocate the OUTPUT DSN on OBIDXLAT when the data set does not exist.

SC19-3776-01 - November 2013
Ability to allocate the OUTPUT DSN on OBIDXLAT when the dataset does not exist
Db2 Change Accumulation Tool allows users to allocate the OUTPUT DSN on OBIDXLAT when the data set does not exist.

Support ‘DISPLAY MEPL’ ISPF command
Db2 Change Accumulation Tool supports the ‘DISPLAY MEPL’ ISPF command. The purpose of this enhancement is to provide diagnostic information to the IBM programming team when software errors arise.

Pseudo-empty index page clean-up
Db2 Change Accumulation Tool cleans up pseudo-empty index pages and pseudo deleted index entries and as a result reduces the size of some indexes. This can improve SQL performance and reduce the need to run the REORG INDEX utility.

Suppression of null indexes
Db2 Change Accumulation Tool excludes NULL values from being indexed and in doing so improves performance.

Extended RBA
Throughout the Db2 Change Accumulation Tool ISPF interface, for Db2 V11, fields dealing with RBA/LRSN now accept a 10 byte hexadecimal string. Six byte RBAs are stored 00000000xxxxxxxxxxxx and six byte LRSNs are stored 00xxxxxxxxxxxx000000.

XML refactoring and performance
Improvements to Db2 Change Accumulation Tool ensure proper operation on XML objects LOADed into Db2 that have not been re-validated.

Compression dictionary requirement
Db2 Change Accumulation Tool provides a history of decompression dictionaries for compressed table spaces or partitions while not interfering with the processing of image copies and logs with compressed data.

System level backup cloning
Db2 Change Accumulation Tool provides a new SWITCH_VCAT control card that changes a WRITE_TO_VSAM target data set name by replacing its first qualifier with the specified vcatname value. The new control card is valid for WRITE_TO_VSAM jobs and WRITE_TO_VSAM with OBIDXLAT jobs.

Online schema
Db2 Change Accumulation Tool verifies proper operation of a PIT mode job across all of the documented triggering boundaries.

Tools Customizer updates
Updates have been made to TCz panels so that they enable users to select Db2 V11 when using the Customizer Workplace panel and the DB2 Parameters panel.

SC19-3641-00 - September 2012

Improves the customization process
Provides a new customization method for easier configuration.
This method invokes the Tools Customizer for z/OS to customize Db2 Change Accumulation Tool with the same look and feel as other Db2 tools.

**Improves performance**
Db2 Change Accumulation Tool leverages Db2 sort and improves elapsed time for processes requiring a sort. Db2 Change Accumulation Tool offers additional elapsed time improvements due to additional parallel processing in the log write process. The log write process is used when applying log records to create more current image copies and when using the WRITE-TO-VSAM option to recover table spaces and index spaces. Db2 Change Accumulation Tool creates image copies more efficiently for LOB table objects.

**Introduces index processing**
Db2 Change Accumulation Tool avoids production object contention on indexes by creating more current image copies by applying log records to a previous image copy. This capability was previously only available on table spaces. These index image copies can be created to a point in time or to the current time and optionally consistent. Db2 Change Accumulation Tool also improves recovery time by creating mini logs for indexes in addition to table spaces. Db2 Change Accumulation Tool reduces elapsed time avoiding a subsequent index rebuild following a table space update.

**Improves application intelligence**
Db2 Change Accumulation Tool offers a point of consistency for groups of objects. Db2 Change Accumulation Tool is now designed to easily and automatically create a consistent image copy from a fuzzy image copy.

**Improves usability**
Db2 Change Accumulation Tool leverages fast replication image copies as a starting point for processing, in addition to legacy image copies. Db2 Change Accumulation Tool streamlines object ID (OBID) translation process that eliminates the need to enter object IDs. Db2 Change Accumulation Tool provides users the flexibility of choosing whether to reuse the existing VSAM data sets or to delete and define them before performing the recovery. Db2 Change Accumulation Tool reduces potential space outages by enabling you to specify larger primary and secondary quantities for sortwork data sets. Db2 Change Accumulation Tool eliminates manual process to manage the contents of the Log table and the corresponding data sets, with user validation to confirm the action before it is executed.

---

**How to read syntax diagrams**

The following rules apply to the syntax diagrams that are used in this information:

- Read the syntax diagrams from left to right, from top to bottom, following the path of the line. The following conventions are used:
  - The >>>--- symbol indicates the beginning of a syntax diagram.
  - The ---+> symbol indicates that the syntax diagram is continued on the next line.
- The >--- symbol indicates that a syntax diagram is continued from the previous line.
- The --->< symbol indicates the end of a syntax diagram.
- Required items appear on the horizontal line (the main path).

\[ \text{required_item} \]

- Optional items appear below the main path.

\[ \text{required_item} \downarrow \text{optional_item} \]

If an optional item appears above the main path, that item has no effect on the execution of the syntax element and is used only for readability.

\[ \text{required_item} \downarrow \text{optional_item} \]

- If you can choose from two or more items, they appear vertically, in a stack. If you must choose one of the items, one item of the stack appears on the main path.

\[ \text{required_item} \downarrow \text{required_choice1} \downarrow \text{required_choice2} \]

If choosing one of the items is optional, the entire stack appears below the main path.

\[ \text{required_item} \downarrow \text{optional_choice1} \downarrow \text{optional_choice2} \]

If one of the items is the default, it appears above the main path, and the remaining choices are shown below.

\[ \text{required_item} \downarrow \text{default_choice} \downarrow \text{optional_choice} \downarrow \text{optional_choice} \]

- An arrow returning to the left, above the main line, indicates an item that can be repeated.

\[ \text{required_item} \downarrow \text{repeatable_item} \]

If the repeat arrow contains a comma, you must separate repeated items with a comma.

\[ \text{required_item} \downarrow \text{repeatable_item} \downarrow , \text{repeatable_item} \]
A repeat arrow above a stack indicates that you can repeat the items in the stack.

- Keywords, and their minimum abbreviations if applicable, appear in uppercase. They must be spelled exactly as shown. Variables appear in all lowercase italic letters (for example, column-name). They represent user-supplied names or values.
- Separate keywords and parameters by at least one space if no intervening punctuation is shown in the diagram.
- Enter punctuation marks, parentheses, arithmetic operators, and other symbols exactly as shown in the diagram.
- Footnotes are shown by a number in parentheses; for example, (1).

---

**Customization reference**

This section provides additional information about customizing Db2 Change Accumulation Tool.

**Jobs generated for Db2 Change Accumulation Tool customization**

This topic lists the customization jobs generated by Tools Customizer for Db2 Change Accumulation Tool.

The customization jobs are grouped by the job sequence number. Run the jobs in the sequence in which they are displayed for all DB2 entries.

The jobs use an 8-character member naming convention that follows the format of ssjjjjdd:

where:

- **ss**: The job sequence number, which is an alphabetic character (A-Z) followed by a numeric character (0-9). For example, a job sequence number is A0, A1, ..., Z9.
- **jjjj**: The first four characters of the job name. The product assigns the job name.
- **dd**: Two alphanumeric characters (AA-99) that Tools Customizer assigns to identify a DB2 entry.

**Parameter values**

This list shows the jobnames (in bold) and templates (in parenthesis next to the jobname) and a description.

- **ssV31 (GGCV31)**
  Configure and add startup CLIST 1 to CLIST library.

- **ssV31C (GGCV31C)**
  Configure and add startup CLIST 2 to CLIST library.

- **ssEXECs (GGCEEXECs)**
  Add Db2 Change Accumulation Tool required EXECs to CLIST library.

- **ss#DD4dd (GGC#DD41)**
  When upgrading from a prior version, create new DB2 objects required for this version.
Create the Db2 Change Accumulation Tool repository.

Create the DB2 repository objects for DB2 V8 NFM.

Create DB2 repository objects for DB2 V8 CM.

Create user-managed index files.

Create optional indexes on SYSIBM.SYSTABLES, SYSIBM.SYSTABSTATS, SYSIBM.SYSTABLES_HIST, and SYSIBM.SYSCOPY.

Create optional indexes on SYSIBM.SYSTABLES and SYSIBM.SYSTABSTATS for DB2 V7 and below or DB2 V8 that is not converted into NFM.

Copy the Db2 Change Accumulation Tool repository for DB2 V9 and later.

Copy the Db2 Change Accumulation Tool repository for DB2 V8.

Binds for DB2 V10 NFM.

Binds for DB2 V9 NFM.

Binds for DB2 V10 CM.

Binds for DB2 V8 NFM.

Binds for DB2 V9 CM.

Binds for DB2 V10 CM.

Binds for DB2 V8 CM.

Grants for execute authority to use Db2 Change Accumulation Tool for DB2 V9 and later.

Grants for execute authority to use Db2 Change Accumulation Tool for DB2 V8.

Create the control file

Generate the job tracking started task procedure.

Generate the job tracking started task parameter file.
ssCF1UP (GGCCF1UP)
Update the control file 1 (non-SSID specific parameters).

ssCF2Udd (GGCCF2UP)
Update control file 2 (SSID-specific parameters).

ssLOADdd (GGCLOADS)
Install the sample profiles.

ssADBI (GGCADBI)
This job creates the ssADBI EXEC that, when run, adds Db2 Change Accumulation Tool to the DB2 Administration Tool Launchpad.

ssADBI2 (GGCADBI2)
This job executes the ssADBI EXEC to add Db2 Change Accumulation Tool to DB2 Administration Tool Launchpad.

---

Usage considerations and scenarios

These usage considerations and scenarios describe some of the ways Db2 Change Accumulation Tool can be used.

### Usage considerations

The Db2 Change Accumulation Tool needs a full image copy as a starting point. Otherwise, it cannot create the accumulated full image copy.

If the last registered copy (full or an incremental) for a table space in the catalog has SHRLEVEL REFERENCE, the image copy created by Db2 Change Accumulation Tool inherits that SHRLEVEL REFERENCE from the last table space image copy.

If the last registered copy (full or an incremental) for a table space in the catalog has no previous SHRLEVEL REFERENCE image copy, Db2 Change Accumulation Tool generates a SHRLEVEL REFERENCE image copy when possible. To do so, Db2 Change Accumulation Tool reads the BSDS, retrieves the log record ranges for the checkpoint records, and adds them to the read ranges derived from SYSLOG RANGE. This ensures that checkpoint records come into the log reader engine and, when found, are used to ‘upgrade’ SHRLEVEL CHANGE image copies if the checkpoint record shows that either:

- No units of work exist, or
- The units of work that exist have been successfully committed.

The usual implementation of the product is to have the COPY utility take an initial full SHRLEVEL REFERENCE image copy of the table spaces. From then on, always use the Db2 Change Accumulation Tool to take accumulated full SHRLEVEL REFERENCE image copies without locking or blocking the data.

Db2 Change Accumulation Tool can be used to create mini logs. Mini logs are data sets that contain DB2 log information for a specific table space (or sets of table spaces). Mini logs extract portions of the DB2 log that pertain to the object being processed. By using Db2 Change Accumulation Tool to create an alternate mini log data set that is then stored in a database that is maintained by Db2 Change Accumulation Tool, you can speed and facilitate recoveries. If mini logs are present, they are used instead of the entire DB2 log.
Meta data for each mini log taken is recorded in a Mini Log Control Table (MCT) created during the installation of Db2 Change Accumulation Tool. Later, when an image copy is to be taken of a table space, Db2 Change Accumulation Tool will check the MCT for the presence of any mini logs that might have been taken within the necessary range of RBAs (relative byte addresses). If mini logs are found, Db2 Change Accumulation Tool can then gain log information directly from the concentrated mini log file(s) for the pertinent RBA ranges rather than having to read the entire DB2 log to acquire the same information.

Db2 Change Accumulation Tool can also be run in recovery mode which enables you to select where changes are written to—image copies, VSAM files, or both—and thus perform recovery scenarios and create image copies.

The Db2 Change Accumulation Tool applies only to databases, table spaces, and partitions of a table space. Index spaces are not supported.

Db2 Change Accumulation Tool does not access the data pages of the table spaces unless you are doing a WRITE_TO_VSAM or WRITE_TO_BOTH operation. In such situations, this is why no locks occur on the data and the tool only reads the image copy data sets and DB2 log records.

Sample scenarios

These sample scenarios describe ways in which Db2 Change Accumulation Tool can be used.

The sample scenarios include single object change accumulation, multiple object change accumulation, partitioned table space change accumulation, recovery using change accumulation, as well as a number of different usage scenarios.

Single object change accumulation

In this example, we show a simple scenario where a Db2 Change Accumulation Tool job is run for one table space.

The table space has a full image copy registered as SHRLEVEL REFERENCE and two incremental image copies; the first one registered as SHRLEVEL CHANGE and the second one as SHRLEVEL REFERENCE.

Because the last copy is a SHRLEVEL REFERENCE copy, Db2 Change Accumulation Tool will also register its copy as SHRLEVEL REFERENCE.

The tool reads the full image copy, then applies the changes from the incremental image copies. The TO_CURRENT keyword indicates that after this, Db2 Change Accumulation Tool looks for a consistency recovery point to establish the image copy’s RBA. Then, it reads the DB2 log and applies the changes to the consistency point RBA, where no units of recovery of this table space are in flight. Finally, Db2 Change Accumulation Tool registers the resulting full image copy in the SYSIBM.SYSCOPY table with this RBA.

The INCREMENTAL SORT keyword means that Db2 Change Accumulation Tool will use incremental sorting for image copy processing (not incremental merge).

The image copy data set name is the one specified in the CALPxxxx DD in the JCL. If a RECOVER takes place afterwards, it will use this image copy as a starting point and will read the log forward from this RBA.

The sample JCL is:
Multiple object change accumulation

Db2 Change Accumulation Tool can process more than one table space in the same step.

You can specify a particular RBA for each table space copy, register them all with the same specific RBA, or use TO_CURRENT. You can even choose a mixture.

Notes:

1. The RBA chosen to be loaded into SYSCOPY is determined by rolling the RBA back to the start point of any in-flight URIDs. If there are none, the RBA may also be adjusted forward to the next SYSLOGRANGE start point (if there is one) or to the RBA of the last valid log record read from the log (if there are no further SYSLOGRANGE records). This allows Db2 Change Accumulation Tool not to have to verify the validity of a specified log point by attempting a read of that log record in the actual log and possibly incurring a tape mount, data set allocation, or extra I/O.

2. Db2 Change Accumulation Tool will stop at the RBA specified for a table space, if you specify multiple table spaces in a run that require the log to be further read, it will be.

The capability to allow multiple objects in the same step makes it easy to get a full image copy at a unique consistent recovery point for related table spaces. In case of complex databases with multiple table spaces and referential integrity among them, Db2 Change Accumulation Tool creates this consistent image copy avoiding any disruption in accessing the data. Without the tool this task always causes some data unavailability.

Db2 Change Accumulation Tool looks for a consistent RBA (as described in Note 1) in the DB2 log and makes the copies without locking the data. Any RECOVER to this point leaves the data consistent and avoids the need for complex CHECK DATA jobs.

The tool obtains the data set names of the image copies from the CALPxxxx DDs in the JCL. Each DD defines one table space image copy matching the order in the SYSINGGC DD. Db2 Change Accumulation Tool registers each image copy in the SYSCOPY, if required.

In [Figure 97 on page 480] Db2 Change Accumulation Tool creates a SHRLEVEL REFERENCE full image copy for three table spaces at the same RBA (x'00027F41198A'). None of the three table spaces become unavailable during the execution of the tool.
In Figure 98, Db2 Change Accumulation Tool creates a SHRLEVEL REFERENCE image copy for each of the three table spaces. For the first table space, TESTTS1, a particular RBA is specified, whereas for the other table space, TESTTS2, the TO_CURRENT parameter applies. For each table space, the Db2 Change Accumulation Tool obtains its last image copy and applies all the changes in the DB2 log records since then to the recovery point specified in each case. Finally, the tool registers each image copy in SYSCOPY with each RBA as requested.

```
CHANGE_ACCUM(  
  GROUP (  
   SPACE (  
    DATABASE TESTDB  
    SPACE_NAME TESTTS1  
    END_RBA '00027F41198A'  
   )  
   SPACE (  
    DATABASE TESTDB  
    SPACE_NAME TESTTS2  
    END_RBA '00027F41198A'  
   )  
   SPACE (  
    DATABASE TESTDB  
    SPACE_NAME TESTTS3  
    END_RBA '00027F41198A'  
   )  
  )  
LOG_COPY_PREFERENCE R1R2A1A2  
LOCAL_SITE  
WRITE_TO_COPIES  
INCREMENTAL.Sort  
USER_INDICATOR GGC  
)
```

Figure 98. Multiple Objects Change Accum (to Specific RBA and TO_CURRENT)
Partitioned table space change accumulation

Db2 Change Accumulation Tool is able to manage table spaces at the partition level. By using the PARTITION keyword, you can specify a particular partition of the table space to be accumulated. This means that an image copy is created at a consistent recovery point for that partition.

If you omit this parameter or specify PARTITION 0, Db2 Change Accumulation Tool parameters apply to the whole table space and creates a unique image copy data set for it.

If the last image copy of a table space is a unique data set that refers to the whole table space, Db2 Change Accumulation Tool uses it as a starting point to create the accumulated copy for the table space partitions. The example in the chart shows this scenario.

However, if all previous image copies have been created at partition level, the Db2 Change Accumulation Tool is not able to create, from these partition image copies, the accumulated image copy for the whole table space. This means that the tool needs a full SHRLEVEL REFERENCE image copy of the whole table space as a starting point to produce a unique accumulated image copy of the whole table space.

All the other control cards apply to the partition level as they do to table space level: END_RBA, STARTING_IC and so on.

In Figure 99 on page 482 Db2 Change Accumulation Tool creates image copy data sets for three partitions. The most recent image copies in the SYSCOPY table are partition level image copies. The tool reads them as starting point, then applies the changes in the DB2 log and creates the new full image copies. Both are registered with the same RBA in the SYSCOPY table.

None of the table space partitions become unavailable during the change accumulation process.
Recovery using change accumulation

The DB2 RECOVER utility uses the image copies created by Db2 Change Accumulation Tool in exactly the same way as it does with normal DB2 image copies. There is no difference between them.

If you use Db2 Change Accumulation Tool, the RECOVER utility can execute faster, since the tool accumulates the incremental image copies and the changes from the DB2 log into new image copies. Therefore, the RECOVER utility only needs to read the last image copy that is a full image copy and afterwards apply the log records to the specified end RBA.

**Note:** The RBA chosen to be loaded into SYSCOPY is determined by rolling the RBA back to the start point of any in-flight URIDs. If there are none, the RBA may also be adjusted forward to the next SYSLOGRANGE start point (if there is one) or to the RBA of the last valid log record read from the log (if there are no further SYSLOGRANGE records). This allows Db2 Change Accumulation Tool not to have to verify the validity of a specified log point by attempting a read of that log record in the actual log and possibly incurring a tape mount, data set allocation, or extra I/O.

Moreover, if you must recover to a consistent recovery point, you can recover to any of the full SHRLEVEL REFERENCE image copies created with the tool. In this case the RECOVER only needs to read the image copy.

**Important:** If the image copy created with the Db2 Change Accumulation Tool is registered as SHRLEVEL CHANGE in SYIBM.SYSCOPY, DB2 cannot guarantee that you have a consistent recovery point if recovering to this copy. The example shows the execution of a change accumulation on two table spaces with referential

```
CHANGE_ACCUM(
  GROUP (
    SPACE (
      DATA_BASE CDBD6
      SPACE_NAME CDBS6
      PARTITION 1
      TO_CURRENT
    )
    SPACE (
      DATA_BASE CDBD6
      SPACE_NAME CDBS6
      PARTITION 2
      TO_CURRENT
    )
    SPACE (
      DATA_BASE CDBD6
      SPACE_NAME CDBS6
      PARTITION 3
      TO_CURRENT
    )
  )
  LOG_COPY_PREFERENCE R1R2A1A2
  LOCAL_SITE
  WRITE_TO_COPIES
  INCREMENTAL_SORT
  USER_INDICATOR GGC
)
```

*Figure 99. Image copy data sets for three partitions*
integrity constraints. It creates, for each of the table spaces, a full SHRLEVEL REFERENCE image copy registered at the same point.

Figure 100 shows the execution of a change accumulation on two table spaces with referential integrity constraints. It creates, for each of the table spaces, a full SHRLEVEL REFERENCE image copy registered at the same point.

```sql
CHANGE_ACCUM(
  GROUP {
    SPACE {
      DATA_BASE TESTDB
      SPACE_NAME TSGGCBW
      TO_CURRENT
    }
    SPACE {
      DATA_BASE TESTDB
      SPACE_NAME TSTTS2
      TO_CURRENT
    }
  }
  LOCAL_SITE
  USER_INDICATOR GGC
)
```

Figure 100. Two table spaces with referential integrity constraints

If you do not RECOVER to current, the indexes are left in REBUILD PENDING status. You have to run REBUILD INDEX to rebuild the index from the data or you can use RECOVER INDEX if the index is defined with the COPY YES attribute.

**Writing changes to an underlying VSAM files**

Db2 Change Accumulation Tool enables users to select where changes are written to—image copies, VSAM files, or both.

The following Db2 Change Accumulation Tool control cards support this functionality: WRITE_TO_COPIES, WRITE_TO_VSAM, and WRITE_TO_BOTH. WRITE_TO_COPIES enables users to write changes to image copies. WRITE_TO_VSAM enables users to write changes to the underlying VSAM file. WRITE_TO_BOTH enables users to write changes to both the underlying VSAM file and to image copies.

When writing to an underlying VSAM file, Db2 Change Accumulation Tool uses the most recent image copy, any incremental image copies, any mini logs in existence, and DB2 log information and writes directly to the underlying VSAM file for the DB2 table space of interest. Thus, the WRITE_TO_VSAM and WRITE_TO_BOTH options enable Db2 Change Accumulation Tool to perform recovery scenarios while the WRITE_TO_COPIES and WRITE_TO_BOTH options enable Db2 Change Accumulation Tool to create image copies.

```sql
CHANGE_ACCUM(
  GROUP {
    SPACE {
      DATA_BASE GGCBW
      SPACE_NAME TSGGCBW
      TO_CURRENT
    }
  }
  LOG_COPY_PREFERENCE R1R2A1A2
  LOCAL_SITE
)
```
In this example, we show an image copy job with control cards for the image copy data sets. Use this method when the number of DDs would exceed the capacity of MVS.

The sample JCL is:

```jcl
/*
//CHG00101 EXEC PGM=GGC#MAIN,REGION=0000M,
// PARM=(D84A)
//*/
//STEPLIB DD DSN=RSQA.GGC210.IBMTAPE.SGGCLOAD,DISP=SHR
//   DD DSN=RSQA.GGC210.IBMTAPE.SFECLOAD,DISP=SHR
//   DD DSN=DB4A.SDSNEXIT,DISP=SHR
// SYSUDUMP DD SYSOUT**
// SYSOUT DD SYSOUT**
//SORTMSG5 DD SYSOUT**
//INFO DD DUMMY 
//DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
//*/
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//*/
//SYSINGGC DD *
//CHANGE_ACCUM ( 
//  GROUP ( 
//    SPACE ( 
//      DATA_BASE DBCA184A 
//      SPACE_NAME TSCA18AB 
//      IC_LP ( 
//        IC_DSN 'RSTEST.DBCA184A.TSCA18AB.GGCICLP(+1)' 
//        IC_CATALOG 
//        IC_DEVICE SYSDA 
//        IC_SPACE 'TRK,(15,15),RLSE' 
//      ) 
//      IC_LB ( 
//        IC_DSN 'RSTEST.DBCA184A.TSCA18AB.GGCICLB(+1)' 
//        IC_CATALOG 
//        IC_DEVICE SYSDA 
//        IC_SPACE 'TRK,(15,15),RLSE' 
//      ) 
//      IC_RP ( 
//        IC_DSN 'RSTEST.DBCA184A.TSCA18AB.GGCICRP(+1)' 
//        IC_CATALOG 
//        IC_DEVICE SYSDA 
//        IC_SPACE 'TRK,(15,15),RLSE' 
//      ) 
//      IC_RB ( 
//        IC_DSN 'RSTEST.DBCA184A.TSCA18AB.GGCICRB(+1)' 
//        IC_CATALOG 
//        IC_DEVICE SYSDA 
//        IC_SPACE 'TRK,(15,15),RLSE' 
//      ) 
//    ) 
//    SPACE ( 
//      DATA_BASE DBCA184A 
//      SPACE_NAME TSCA18AX 
//      IC_LP ( 
//        IC_DSN 'RSTEST.DBCA184A.TSCA18AX.GGCICLP(+1)' 
//      ) 
//    ) 
//  ) 
//*/
```

IBM Db2 Change Accumulation Tool for z/OS
Image copy job with DDs for image copy data sets

In this example, we show an image copy job with DDs for image copy data sets.

The sample JCL is:

```plaintext
IC_CATALOG
IC_DEVICE SYSDA
IC_SPACE 'TRK,(150,37),RLSE'
)
IC_LB (  
IC_DSN 'RSTEST.DBCA184A.TSCA18AX.GGCICLB(+1)'  
IC_CATALOG  
IC_DEVICE SYSDA  
IC_SPACE 'TRK,(150,37),RLSE'
)
IC_RP (  
IC_DSN 'RSTEST.DBCA184A.TSCA18AX.GGCICRP(+1)'  
IC_CATALOG  
IC_DEVICE SYSDA  
IC_SPACE 'TRK,(150,37),RLSE'
)
IC_RB (  
IC_DSN 'RSTEST.DBCA184A.TSCA18AX.GGCICRB(+1)'  
IC_CATALOG  
ICDEVICE SYSDA  
IC_SPACE 'TRK,(150,37),RLSE'
)
)
TO_CURRENT
)
LOG_COPY_PREFERENCE RIR2A1A2
WRITE_TO_COPIES
INCREMENTAL_SORT
USER_INDICATOR GGC
)

Image copy job with DDs for image copy data sets

In this example, we show an image copy job with DDs for image copy data sets.

The sample JCL is:

```plaintext
```
/* */
/* Step: CHG00101 */
"/* Desc: This step will invoke IBM Change Accum */
/* */
```
// CARP0001 DD DSN=RSTEST.DBCA184A.TSCA18AB.GGCICRP(+1), // DISP=(NEW,CATLG,CATLG), // UNIT=SYSDA, // SPACE=(TRK,(15,15),RLSE)
// CARB0001 DD DSN=RSTEST.DBCA184A.TSCA18AB.GGCICRB(+1), // DISP=(NEW,CATLG,CATLG), // UNIT=SYSDA, // SPACE=(TRK,(15,15),RLSE)
// CALP0002 DD DSN=RSTEST.DBCA184A.TSCA18AX.GGCICLP(+1), // DISP=(NEW,CATLG,CATLG), // UNIT=SYSDA, // SPACE=(TRK,(150,37),RLSE)
// CALB0002 DD DSN=RSTEST.DBCA184A.TSCA18AX.GGCICLB(+1), // DISP=(NEW,CATLG,CATLG), // UNIT=SYSDA, // SPACE=(TRK,(150,37),RLSE)
// CARP0002 DD DSN=RSTEST.DBCA184A.TSCA18AX.GGCICRP(+1), // DISP=(NEW,CATLG,CATLG), // UNIT=SYSDA, // SPACE=(TRK,(150,37),RLSE)
// CARB0002 DD DSN=RSTEST.DBCA184A.TSCA18AX.GGCICRB(+1), // DISP=(NEW,CATLG,CATLG), // UNIT=SYSDA, // SPACE=(TRK,(150,37),RLSE)
// SYSSINGGC DD *

CHANGE_ACCUM ()
  GROUP ()
    SPACE ()
      DATA_BASE DBCA184A
      SPACE_NAME TSCA18AB
    )
    SPACE ()
      DATA_BASE DBCA184A
      SPACE_NAME TSCA18AX
  )
  TO_CURRENT
)
  LOG_COPY_PREFERENCE R1R2A1A2
  WRITE_TO_COPIES
  INCREMENTAL SORT
  USER_INDICATOR GGC
)
/*
/*

Db2 Change Accumulation Tool mini log job with GROUP level mini log

In this example, we show a mini log job with GROUP-level mini logs.

The sample JCL is:
//CHG00101 EXEC PGM=GGC#MAIN,REGION=0000M,
  PARM=(D84A)
  /*
  STEPLIB DD DSN=RSQA.GGC210.IBMTAPE.SGGCLOAD,DISP=SHR
  DD DSN=RSQA.GGC210.IBMTAPE.SFECLOAD,DISP=SHR
  DD DSN=D84A.SDSNEXIT,DISP=SHR
  DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
  SYSUDUMP DD SYSOUT**
  SYSPUT DD SYSOUT**
  SORTMSGS DD SYSOUT**
  INFORM DD DUMMY Log reader info messages
  /DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
  /*
  SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
Mini log job with SPACE-level mini log

In this example, we show a mini log job with SPACE-level mini logs.

The sample JCL is:

```
//CHG00101 EXEC PGM=GGC#MAIN,REGION=0000M,
//   PARM=(D84A)
//STEPLIB DD DSN=RSQA.GGC210.IBMTAPE.SGGLOAD,DISP=SHR
//   DSN=RSQA.GGC210.IBMTAPE.SFECLOAD,DISP=SHR
//   DSN=DB84A.SDSNEXIT,DISP=SHR
//SYSUDUMP DD SYSOUT=* 
//SYOUT DD SYSOUT=* 
//SORTMSGS DD SYSOUT=*
//INFO DD DUMMY 
//DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
```

Chapter 11. Reference 487
WRITE_TO_COPIES -
INCREMENTAL.Sort -
USER_INDICATOR GGC
)
/*
/*

Write to BOTH job

In this example, we show a write-to-both job. Db2 Change Accumulation Tool writes to the VSAM data set (recover) and creates an image copy to the specified data set.

The sample JCL is:

/*
/CHG001 EXEC PGM=GGC#MAIN,REGION=0000M,
 // PARM=(D84A)
//*/
//STLIB DD DSN=RSQA.GGC210.IBMTAPE.SGGLoad,DISP=SHR
// DD DSN=RSQA.GGC210.IBMTAPE.SFCLOAD,DISP=SHR
// DD DSN=D84A.SDSNEXIT,DISP=SHR
// DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//SYSUDUMP DD SYSOUT=* 
//SYSOUT DD SYSOUT=* 
//SORTMSGS DD SYSOUT=* 
//INFORM DD DUMMY Log reader info messages 
//DD2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
//*/
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//*/
//CALP0001 DD DSN=RSTEST.DBCA184A.TSCA18AB.GGCIC(+1),
 // DISP=(NEW,CATLG,CATLG), 
 // UNIT=SYSDA,
 // SPACE=(TRK,(15,15),RLSE)
//CALP0002 DD DSN=RSTEST.DBCA184A.TSCA18AX.GGCIC(+1),
 // DISP=(NEW,CATLG,CATLG),
 // UNIT=SYSDA,
 // SPACE=(TRK,(150,37),RLSE)
//SYINGGC DD *
//CHANGE_ACCUM {
 //GROUP {
 // SPACE {
 // DATA_BASE DBCA184A
 // SPACE_NAME TSCA18AB
 // }
 // SPACE {
 // DATA_BASE DBCA184A
 // SPACE_NAME TSCA18AX
 // }
 // TO_CURRENT
 // }
 // LOG_COPY_PREFERENCE R1R2A1A2
 // WRITE_TO_BOTH
 // INCREMENTAL.Sort
 // USER_INDICATOR GGC
 //}
//*/
//*/

Write to VSAM job

This example shows how Db2 Change Accumulation Tool can be used to write to a VSAM file.
**Note:** You must stop the target DB.TS before the WRITE_TO_VSAM step and you must start the Target DB.TS after the WRITE_TO_VSAM step.

The sample JCL is:
```
//CHG00101 EXEC PGM=GGC#MAIN,REGION=0000M,
  //   PARM=(D84A)
//
//STEPLIB DD DSN=RSQA.GGC210.IBMTAPE.SGCLOAD,DISP=SHR
//   DD DSN=RSQA.GGC210.IBMTAPE.SFECLOAD,DISP=SHR
//   DD DSN=D84A.SDSNEXIT,DISP=SHR
//   DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//SYSUDUMP DD SYSOUT**
//SYSOUT DD SYSOUT**
//SORTMSG DD SYSOUT**
//INFORM DD DUMMY
//DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
//
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//*
//SYSINGGC DD *
//   CHANGE_ACCUM ( -
//       GROUP ( -
//           SPACE ( -
//               DATA_BASE DBCA184A -
//               SPACE_NAME TSCA18AB -
//           ) -
//           SPACE ( -
//               DATA_BASE DBCA184A -
//               SPACE_NAME TSCA18AX -
//           ) -
//           TO_CURRENT -
//       ) -
//   LOG_COPY_PREFERENCE R1R2A1A2 -
//   WRITE_TO_VSAM -
//   INCREMENTAL_SORT -
//   USER_INDICATOR GGC -
//)
//*
//*
```

**Image copy OBIDXLAT for partitioned table space**

In this example, the XLAT_DSN shows the target image copy data set for each partition. DBID, PSID, and OBID are also specified for the 'Source,Target'.

The sample JCL is:
```
//** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * */
//*  *
//* Step: REGISTER - Was not Generated in this Job. *
//*  *
//* Register to the IBM DB2 Automation Tool Execution and Reporting *
//* Facility has been bypassed because the Execution Facility started *
//* task SSID (Subsystem ID) was not entered on the Setup screen for *
//* this DB2 Subsystem. *
//*  *
//* If you would like your jobs to register with the Execution and *
//* Reporting facility, enter option "S" from the product main menu *
//* and then enter option "3" for this DB2 Subsystem. Enter a valid *
//* Execution facility subsystem ID that will track this DB2 *
//* subsystems jobs generated by this product. *
//*  *
//** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * */
```
//*** ******************************************************
//** Step: CHG00102
//**
//** Desc: This step will invoke IBM Change Accum
//**
//*** ******************************************************
//CHG00102 EXEC PGM=GGC#MAIN,REGION=0000M,
//       PARM=(D84A)
//**
//STEPLIB DD DSN=RSQA.GGC210.IBMTAPE.SGGCLOAD,DISP=SHR
// DD DSN=RSQA.GGC210.IBMTAPE.SFECLOAD,DISP=SHR
// DD DSN=D84A.SDSNEXIT,DISP=SHR
// DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//SYSUDUMP DD SYSOUT**
//SYSOUT DD SYSOUT**
//SORTMSG DD SYSOUT**
//INFORM DD DUMMY Log reader info messages
//DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
//**
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//**
//SYSINGGC DD *

CHANGE_ACCUM (GROUP (SPACE (
   DATA_BASE DBCA877D
   SPACE_NAME TSCAORGD
   PARTITION 1
   OBIDXLAT (XLAT_DSN 'RSTEST.DBCA877E.TSCAORGE.PART1'
                  DBID '000496,000497'
                  PSID '000002,000002'
                  OBID '000005,000005'
   )
   )
   SPACE (DATA_BASE DBCA877D
               SPACE_NAME TSCAORGD
               PARTITION 2
               OBIDXLAT (XLAT_DSN 'RSTEST.DBCA877E.TSCAORGE.PART2'
                          DBID '000496,000497'
                          PSID '000002,000002'
                          OBID '000005,000005'
   )
   )
   SPACE (DATA_BASE DBCA877D
               SPACE_NAME TSCAORGD
               PARTITION 3
               OBIDXLAT (XLAT_DSN 'RSTEST.DBCA877E.TSCAORGE.PART3'
                          DBID '000496,000497'
                          PSID '000002,000002'
                          OBID '000005,000005'
   )
   )
   SPACE (DATA_BASE DBCA877D
               SPACE_NAME TSCAORGD
               PARTITION 4
               OBIDXLAT (
Chapter 11. Reference 491
Write to VSAM OBIDXLAT (partitioned table space)

This example shows a WRITE_TO_VSAM (recover) OBIDXLAT for a partitioned table space.

The sample JCL is:
Note: You must stop the target DB.TS before the WRITE_TO_VSAM step and you must start the Target DB.TS after the WRITE_TO_VSAM step.

```sql
CHANGE_ACCUM (  
  GROUP (  
    SPACE (  
      DATA_BASE DBCA877D  
      SPACE_NAME TSCAORGD  
      PARTITION 1  
      OBIXLAT (  
        XLAT_DSN 'D84A.DSNOBD.DBCA877E.TSCAORGE.I0001.A001'  
        DBID '000496,000497'  
        PSID '000002,000002'  
        OBID '00005,00005'  
      )  
    )  
  )  
  SPACE (  
    DATA_BASE DBCA877D  
    SPACE_NAME TSCAORGD  
    PARTITION 2  
    OBIXLAT (  
      XLAT_DSN 'D84A.DSNOBD.DBCA877E.TSCAORGE.I0001.A002'  
      DBID '000496,000497'  
      PSID '000002,000002'  
      OBID '00005,00005'  
    )  
  )  
  SPACE (  
    DATA_BASE DBCA877D  
    SPACE_NAME TSCAORGD  
    PARTITION 3  
    OBIXLAT (  
      XLAT_DSN 'D84A.DSNOBD.DBCA877E.TSCAORGE.I0001.A003'  
      DBID '000496,000497'  
      PSID '000002,000002'  
      OBID '00005,00005'  
    )  
  )  
  SPACE (  
    DATA_BASE DBCA877D  
    SPACE_NAME TSCAORGD  
    PARTITION 4  
    OBIXLAT (  
      XLAT_DSN 'D84A.DSNOBD.DBCA877E.TSCAORGE.I0001.A004'  
      DBID '000496,000497'  
      PSID '000002,000002'  
      OBID '00005,00005'  
    )  
  )  
  SPACE (  
    DATA_BASE DBCA877D  
    SPACE_NAME TSCAORGD  
    PARTITION 5  
    OBIXLAT (  
      XLAT_DSN 'D84A.DSNOBD.DBCA877E.TSCAORGE.I0001.A005'  
      DBID '000496,000497'  
      PSID '000002,000002'  
      OBID '00005,00005'  
    )  
  )  
  SPACE (  
    DATA_BASE DBCA877D  
    SPACE_NAME TSCAORGD  
    PARTITION 6  
    OBIXLAT (  
      XLAT_DSN 'D84A.DSNOBD.DBCA877E.TSCAORGE.I0001.A006'  
      DBID '000496,000497'  
    )  
  )
```
Chapter 11. Reference 495

PSID '000002,000002' -
OBID '000005,000005' -
)
)
)
SPACE ( -
DATA_BASE DBCA877D -
SPACE_NAME TSCAORGD -
PARTITION 7 -
OBIDXLAT ( -
xLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCAORGE.I0001.A007' -
DBID '000496,000497' -
PSID '000002,000002' -
OBID '000005,000005' -
)
)
)
SPACE ( -
DATA_BASE DBCA877D -
SPACE_NAME TSCAORGD -
PARTITION 8 -
OBIDXLAT ( -
xLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCAORGE.I0001.A008' -
DBID '000496,000497' -
PSID '000002,000002' -
OBID '000005,000005' -
)
)
)
SPACE ( -
DATA_BASE DBCA877D -
SPACE_NAME TSCAORGD -
PARTITION 9 -
OBIDXLAT ( -
xLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCAORGE.I0001.A009' -
DBID '000496,000497' -
PSID '000002,000002' -
OBID '000005,000005' -
)
)
)
SPACE ( -
DATA_BASE DBCA877D -
SPACE_NAME TSCAORGD -
PARTITION 10 -
OBIDXLAT ( -
xLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCAORGE.I0001.A010' -
DBID '000496,000497' -
PSID '000002,000002' -
OBID '000005,000005' -
)
)
)
SPACE ( -
DATA_BASE DBCA877D -
SPACE_NAME TSCASTAD -
PARTITION 1 -
OBIDXLAT ( -
xLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A001' -
DBID '000496,000497' -
PSID '000004,000004' -
OBID '000006,000006' -
)
)
)
SPACE ( -
DATA_BASE DBCA877D -
SPACE_NAME TSCASTAD -
PARTITION 2 -
OBIDXLAT ( -
xLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A002' -
DBID '000496,000497' -
SPACE (  
  DATA_BASE DBCA877D  
  SPACE_NAME TSCASTAD  
  PARTITION 3  
  OBIDXLAT (  
    XLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A003'  
    DBID '0000496,000497'  
    PSID '000004,000004'  
    OBID '000006,000006'  
  )  
)  
SPACE (  
  DATA_BASE DBCA877D  
  SPACE_NAME TSCASTAD  
  PARTITION 4  
  OBIDXLAT (  
    XLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A004'  
    DBID '0000496,000497'  
    PSID '000004,000004'  
    OBID '000006,000006'  
  )  
)  
SPACE (  
  DATA_BASE DBCA877D  
  SPACE_NAME TSCASTAD  
  PARTITION 5  
  OBIDXLAT (  
    XLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A005'  
    DBID '0000496,000497'  
    PSID '000004,000004'  
    OBID '000006,000006'  
  )  
)  
SPACE (  
  DATA_BASE DBCA877D  
  SPACE_NAME TSCASTAD  
  PARTITION 6  
  OBIDXLAT (  
    XLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A006'  
    DBID '0000496,000497'  
    PSID '000004,000004'  
    OBID '000006,000006'  
  )  
)  
SPACE (  
  DATA_BASE DBCA877D  
  SPACE_NAME TSCASTAD  
  PARTITION 7  
  OBIDXLAT (  
    XLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A007'  
    DBID '0000496,000497'  
    PSID '000004,000004'  
    OBID '000006,000006'  
  )  
)  
SPACE (  
  DATA_BASE DBCA877D  
  SPACE_NAME TSCASTAD  
  PARTITION 8  
  OBIDXLAT (  
    XLAT_DSN 'D84A.DSNDBD.DBCA877E.TSCASTAE.I0001.A008'  
    DBID '0000496,000497'  
  )

496 IBM Db2 Change Accumulation Tool for z/OS
Write to VSAM OBIDXLAT (segmented table space)
In this example, we show a write to VSAM OBIDXLAT job for a segmented table space.

The sample JCL is:

**Note:** You must stop the target DB.TS before the WRITE_TO_VSAM step and you must start the Target DB.TS after the WRITE_TO_VSAM step.
OBID '00009,00008' -
OBID '00010,00011' -
OBID '00011,00010' -
OBID '00012,00014' -
OBID '00013,00012' -
OBID '00014,00013' -
OBID '00015,00015' -
)
)
TO_CURRENT -
)
LOG_COPY_PREFERENCE R1R2A1A2 -
WRITE_TO_VSAM -
INCREMENTAL_SORT -
USER_INDICATOR GGC -
)

**OBIDXLAT by specifying the IC data sets, RBA and incremental image copies**

This example shows the use of OBIDXLAT for an object that is dropped and re-created with the same DDL. This job specifies image copy data sets, RBA, incremental image copies.

For information about specific control cards, including XLAT_IN_DSN, XLAT_IN_LOGPOINT, INCR_IN_DSN, and INCR_IN_LOGPOINT, see "Db2 Change Accumulation Tool syntax definitions" on page 190.

**Note:** In the example, DBCA877F.TSCAORGF has only one table. DBCA877F.TSCASTAF has two tables (so there are two sets of OBID pairs).

The sample JCL is:

```
CHANGE_ACCUM (
    GROUP ( 
    SPACE ( 
        DATA_BASE DBCA877F 
        SPACE_NAME TSCAORGF 
        OBIDXLAT ( 
            XLAT_DSN 'D84A.DSNDBD.DBCA877G.TSCAORGG.I0001.A001' 
            XLAT_IN_DSN 'RSTEST.DBCA877F.TSCAORGF.GGCIC1' 
            XLAT_IN_LOGPOINT X'001B1939FA52' 
            OBID '000512,000513' 
            PSID '000002,000002' 
            OBID '00005,00005' 
            XLAT_INCREMENTAL ( 
                INCR_IN_DSN 'RSTEST.DBCA877F.TSCAORGF.IIC1' 
                INCR_IN_LOGPOINT X'001B1939FA52' 
            ) 
            XLAT_INCREMENTAL ( 
                INCR_IN_DSN 'RSTEST.DBCA877F.TSCAORGF.IIC2' 
                INCR_IN_LOGPOINT X'001B1930736E' 
            ) 
            XLAT_INCREMENTAL ( 
                INCR_IN_DSN 'RSTEST.DBCA877F.TSCAORGF.IIC3' 
                INCR_IN_LOGPOINT X'001B1940611D' 
            ) 
        ) 
    ) 
    SPACE ( 
        DATA_BASE DBCA877F 
        SPACE_NAME TSCASTAF 
        OBIDXLAT ( 
            XLAT_DSN 'D84A.DSNDBD.DBCA877G.TSCASTAG.I0001.A001' 
            XLAT_IN_DSN 'RSTEST.DBCA877F.TSCASTAF.GGCIC1' 
            XLAT_IN_LOGPOINT X'001B1939FA52' 
        ) 
    ) 
)
```
Write to VSAM OBIDXLAT with rebuild index

This example shows a WRITE_TO_VSAM (recover) OBIDXLAT with Rebuild Index for target. There are two JCLs created in this member, the first is the OBIDXLAT and these second JCL is the Rebuild Index job for the Target DB.TS that must be run on the Target DB2 LPAR.

The sample JCL is:

Note: You must stop the target DB.TS before the WRITE_TO_VSAM step and you must start the Target DB.TS after the WRITE_TO_VSAM step.

//XLWTRI  JOB CSKUMA,CLASS=A,NOTIFY=&SUID
//*
//*
//** * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//*
//** Job Generated by IBM DB2 Change Accum V2R1.01
//*
//*
//** DB2 SID: DB4A
//** SQLID: *
//** Profile: CSGCQA.V21 WTV RI OBID NEW
//** Desc:  V21 WTV RI OBID
//** User:  CSKUMA
//** Date:  Friday October 10, 2008
//** Time:  16:15:09.24
//*
//** * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//*
//** Step:  REGISTER - Was not Generated in this Job.
//*
//*
//* Register to the IBM DB2 Automation Tool Execution and Reporting *
//* facility has been bypassed because the Execution Facility started *
//* task SSID (Subsystem ID) was not entered on the Setup screen for *
//* this DB2 Subsystem. *
//*
//* If you would like your jobs to register with the Execution and *
//* Reporting facility, enter option "S" from the product main menu *
//* and then enter option "3" for this DB2 Subsystem. Enter a valid *
//* Execution facility subsystem ID that will track this DB2 *
//* subsystems jobs generated by this product. *
//*
/** *************** *************** *************** *************** ***/
//** *************** *************** *************** *************** ***/
/** *************** *************** *************** *************** ***/
//** Step: CHG00102 */
//** */
//** Desc: This step will invoke IBM Change Accum */
//** */
/** *************** *************** *************** *************** ***/
/** */
//CHG00102 EXEC PGM=GGC#MAIN,REGION=0000M,
// Parm=(D84A)
//*/
//STEPLIB DD DSN=RSTEST.GGC210.IBMTAPE.SGGCLOAD,DISP=SHR
// DD DSN=RSTEST.GGC210.IBMTAPE.SFECLOAD,DISP=SHR
// DD DSN=D84A.5DSNEXIT,DISP=SHR
// DD DSN=RSTEST.GGC210.IBMTAPE.SGLOAD,DISP=SHR
//SYSUDUMP DD SYSOUT=*
//SYSTMSGS DD SYSOUT=*
//INFOM DD DUMMY Log reader info messages
//DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
//*/
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//*/
//SYSINGGC DD *
//CHANGE_ACCUM {
// GROUP {
// SPACE {
// DATA_BASE DBCA877P
// SPACE_NAME TSCAORGP
// OBIXLAT {
// XLAT_DSN 'D84A.DSNDBD.DBCA877Q.TSCAORGP.I0001.A001'
// DBID '000521,000525'
// PSID '000002,000002'
// OBID '00005,00005'
// }
// }
// SPACE {
// DATA_BASE DBCA877P
// SPACE_NAME TSCASTAP
// OBIXLAT {
// XLAT_DSN 'D84A.DSNDBD.DBCA877Q.TSCASTAP.I0001.A001'
// DBID '000521,000525'
// PSID '000004,000004'
// OBID '00006,00007'
// OBID '00007,00006'
// OBID '00008,00009'
// OBID '00009,00008'
// OBID '00010,00011'
// OBID '00011,00010'
// OBID '00012,00014'
// OBID '00013,00012'
// OBID '00014,00013'
// OBID '00015,00015'
// }
// }
// TO_CURRENT
//}
//LOG_COPY_PREFERENCE R1R2A1A2

500 IBM Db2 Change Accumulation Tool for z/OS
Write to VSAM indexes with control card for DATA_BASE.SPACENAME

This is a job for indexes with the control card for DATA_BASE.SPACENAME.

***********************************************************************
//JOBCARD JOB PDPOTA,CLASS=A,NOTIFY=&SYSUID
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//*
//* SQLID: USERA *
//* Profile: USERA.GGC-1B2 *
//* Desc: INDEX PROCESSING *
//* User: USERA *
//* Date: Day Month DD, YYYY *
//* Time: HH:MM:SS.SS *
//*
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//* Step: REGISTER - Was not Generated in this Job. *
//*
//* Register to the IBM DB2 Automation Tool Execution and Reporting *
//* facility has been bypassed because the Execution Facility started *
//* task SSID (Subsystem ID) was not entered on the Setup screen for *
//* this DB2 Subsystem. *
//*
//* If you would like your jobs to register with the Execution and *
//* Reporting facility, enter option "S" from the product main menu *
//* and then enter option "S" for this DB2 Subsystem. Enter a valid *
//* Execution Facility subsystem ID that will track this DB2 *
//* subsystems jobs generated by this product. *
//*
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//* Step: CHG00102 *
//*
//* Desc: This step will invoke IBM Change Accum *
//*
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//*                          *****************************************************
//* CHG00102 EXEC PGM=GGC#MAIN,REGION=00000M, *
//* PARM=(Q01A) *
//*
//* STEPLIB DD DSN=GCG.WS0210.LOADLIB,DISP=SHR *
//* DD DSN=GCG.MNT0210.LOADLIB,DISP=SHR *
//* DD DSN=FEC.MNT0130.LOADLIB,DISP=SHR *
//* DD DSN=FEC.PAD0130.LOADLIB,DISP=SHR *
//* DD DSN=Q01A.SDSNEXIT,DISP=SHR *
//* DD DSN=SNY.V910.SDSNLOAD,DISP=SHR *
//* SYSUDUMP DD SYSDUMP=* *
//* SYSCOUT DD SYSCOUT=* *
//* SORTMSGS DD SYSCOUT=* *
//* INFORM DD DUMMY Log reader info messages *
//* DB2PARMS DD DSN=RTEST.GGC210.DB2CNTL,DISP=SHR *
//*
//* SORTKW01 DD UNIT=SYSDA,SPACE=(CYL(20,1),ROUND) *
//* SORTKW02 DD UNIT=SYSDA,SPACE=(CYL(20,1),ROUND) *
//* SORTKW03 DD UNIT=SYSDA,SPACE=(CYL(20,1),ROUND) *
//*
//* SYRINGGC DD *
//* CHANGE_ACCUM ( *
//* GROUP ( *
//* SPACE ( *
//* DATA_BASE DBPDPOTB *
//* SPACE_NAME TSPD91A *
//* ) *
//* SPACE ( *
//* DATA_BASE DBPDPOTB *
//* SPACE_NAME ISTPX1A *
//* ) *
//* SPACE ( *
//* DATA_BASE DBPDPOTB *
//* SPACE_NAME ISTPX1B *
//* ) *
//* SPACE ( *
//* DATA_BASE DBPDPOTB *
//* SPACE_NAME ISTPX1 *
//* TO_CURRENT *
//* ) *
//* LOG_COPY_PREFERENCE R1RZAJA2 *
//* WRITE TO VSM *
//* INCREMENTAL_SORT *
//* USER_INDICATOR GSG *
//* )

502 IBM Db2 Change Accumulation Tool for z/OS
Write to VSAM for table space with parallel rebuild of indexes
This is a WRITE_TO_VSAM for table space objects with parallel rebuild of indexes.

OBIDXLAT
In the following example, Database.Tablespace is specified for a SPACE(...) set.

```c
SPACE (  
  DATA_BASE DBCA184C  
  SPACE_NAME TSCA184C  
  OBIDXLAT {  
    XLAT_DSN 'QDS4.DSNDBC.DBCA184D.TSCA184D.I0001.A001'  
    DBID '000879,000880'  
    PSID '000002,000002'  
    OBID '00003,00003'  
  }  
)
```

where:
- **DATA_BASE** - Database
- **SPACE_NAME** - Tablespace
- **XLAT_DSN** - Target Tablespace VSAM data set
- **DBID/PSID/OBID** - (Source, Target) DBID/PSID/OBID for Database.Tablespace from SYSIBM.SYSTABLES. For AUXILIARY LOB table space, the OBID is from SYSIBM.SYSTABLESPACE.

In the following example, Database.Indexspace is specified in a SPACE(...) set:

```c
SPACE (  
  DATA_BASE DBCA184C  
  SPACE_NAME ISCA18SX  
  OBIDXLAT {  
    XLAT_DSN 'QDS4.DSNDBC.DBCA184D.ISCA18TX.I0001.A001'  
  }  
)
```
DBID '000079,000080'
PSID '000005,000005'
OBID '000004,000004'
OBID '000003,000003'

where:
- DATA_BASE - Database
- SPACE_NAME - Indexspace
- XLAT_DSN - Target Indexspace VSAM dataset
- DBID - DBID from SYSIBM.SYINDEXES
- PSID - ISOBID from SYSIBM.SYINDEXES.ISOBID
- OBID - OBID from SYSIBM.SYINDEXES
- OBID - OBID from SYSIBM.SYSTABLES

Note: When specifying Database.Indexspace, you must specify DBID, PSID and two sets of OBID pairs. The order in which these OBID pairs are specified is significant. (DBID first, PSID is the ISOBID from SYSIBM.SYINDEXES second, OBID from SYSIBM.SYINDEXES third and then the OBID from SYSIBM.SYSTABLES for the corresponding table) Index OBIDs must be specified first followed then by Table OBIDs. The first OBID pair must specify the indexes and the second OBID pair must specify the tables.

**OBIDXLAT with REBUILD INDEXES**

Put your short description here; used for first paragraph and abstract.

******************************************************************************
/* Job Generated by IBM DB2 Change Accum V2R1.01 */
/* DB2 SSID: Q91A */
/* SQLID: PDPOTA */
/* Profile: PDPOTA.GGC-1471 */
/* Desc: INDEX PROCESSING */
/* User: PDPOTA */
/* Date: Thursday March 24, 2011 */
/* Time: 15:37:49.97 */
/* */
******************************************************************************
/* Step: REGISTER - Was not Generated in this Job. */
/* */
/* Register to the IBM DB2 Automation Tool Execution and Reporting */
/* facility has been bypassed because the Execution Facility started */
/* task SSID (Subsystem ID) was not entered on the Setup screen for */
/* this DB2 Subsystem. */
/* */
/* If you would like your jobs to register with the Execution and */
/* Reporting facility, enter option "S" from the product main menu */
/* and then enter option "3" for this DB2 Subsystem. Enter a valid */
/* Execution facility subsystem ID that will track this DB2 */
/* subsystems jobs generated by this product. */
/* */
/* Step: CHG00102 */
/* */
This step will invoke IBM Change Accum.
OBIDXLAT with Dropped Object Support

The following examples are of OBIDXLAT jobs with dropped object support.

OBIDXLAT with Process Index = Y (Object Profile)

The following is an example of an OBIDXLAT job with Process Index = P on the Object Profile:

```json
REBUILD_INDEXES
)
)
SPACE ( -
DATA_BASE DBPDPOTB -
SPACE_NAME ISTPX2A -
OBIDXLAT ( -
XLAT_DSN 'Dummy'
DBID '000441,000441'
PSID '000022,000022'
OBID '00021,00021'
OBID '00010,00010'
)
REBUILD_INDEXES
)
)
SPACE ( -
DATA_BASE DBPDPOTB -
SPACE_NAME ISTPX2B -
OBIDXLAT ( -
XLAT_DSN 'Dummy'
DBID '000441,000441'
PSID '000024,000024'
OBID '00023,00023'
OBID '00010,00010'
)
REBUILD_INDEXES
)
)
SPACE ( -
DATA_BASE DBPDPOTB -
SPACE_NAME ISTPX22 -
OBIDXLAT ( -
XLAT_DSN 'Dummy'
DBID '000441,000441'
PSID '000020,000020'
OBID '00019,00019'
OBID '00010,00010'
)
REBUILD_INDEXES
)
)
TO_CURRENT -
)
LOG_COPY_PREFERENCE R1R2A1A2 -
WRITE_TO_VSAM -
INCREMENTAL_SORT -
USER_INDICATOR GGS -
/*
/ */
******************************************************************************

OBIDXLAT with Dropped Object Support

The following examples are of OBIDXLAT jobs with dropped object support.

OBIDXLAT with Process Index = Y (Object Profile)

The following is an example of an OBIDXLAT job with Process Index = P on the Object Profile:

```
Chapter 11. Reference 507

```c
// = Step: REGISTER - Was not Generated in this Job. *
// =
// = Register to the IBM DB2 Automation Tool Execution and Reporting *
// facility has been bypassed because the Execution Facility started *
// task SSID (Subsystem ID) was not entered on the Setup screen for *
// this DB2 Subsystem.
// =
// = If you would like your jobs to register with the Execution and *
// Reporting facility, enter option "S" from the product main menu *
// and then enter option "3" for this DB2 Subsystem. Enter a valid *
// Execution facility subsystem ID that will track this DB2 *
// subsystems jobs generated by this product.
// =
// =******************************************************************************
// =
// = Step: CHG00102 *
// =
// = Desc: This step will invoke IBM Change Accum *
// =
// =******************************************************************************
// =
// = CHG00102 EXEC PGM=GGC#MAIN,REGION=0000M,
// PARM=(DB4A)
// =
// =STEPLIB DD DSN=GEC.WK50210.LOADLIB,DISP=SHR
// = DD DSN=GEC.MNT0210.LOADLIB,DISP=SHR
// = DD DSN=FEC.MNT0130.LOADLIB,DISP=SHR
// = DD DSN=FEC.PRD0130.LOADLIB,DISP=SHR
// = DD DSN=DB4A.SDSNEXIT,DISP=SHR
// = DD DSN=V810.SDSNLOAD,DISP=SHR
// =SYSUDUMP DD SYSOUT=**
// =SYSOUT DD SYSOUT=**
// =SORTMSGS DD SYSOUT=**
// =INFORM DD DUMMY Log reader info messages
// =DB2PARMS DD DSN=RTEST.GGC#210.DB2CNTL,DISP=SHR
// =
// =SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
// =SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
// =SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
// =
// =SYSINGGC DD *
// =CHANGE_ACCUM (G)
// GROUP ( )
// SPACE ( )
// DATA_BASE DBCA877F
// SPACE_NAME TSCAORGF
// OBIXDLAT ( )
// XLAT_DSN 'DB4A.DSNDB01.DBCA877G.TSCAOORG.10001.A001' -
// XLAT_IN_DSN 'RSTEST.DB4A.DBCA877F.TSCAOORF.GGCIC1' -
// XLAT_IN_LOGPOINT X'0079D3017590' -
// OBID '000512,000513' -
// PSID '000004,000004' -
// OBID '000002,000002' -
// OBID '000005,000005' -
// XLAT_INCREMENTAL ( )
// INCR_IN_DSN 'RSTEST.DB4A.DBCA877F.TSCAOORGF.GGCIC1' -
// INCR_IN_LOGPOINT X'0079D3026BB8' -
// )
// XLAT_INCREMENTAL ( )
// INCR_IN_DSN 'RSTEST.DB4A.DBCA877F.TSCAOORGF.GGCIC2' -
// INCR_IN_LOGPOINT X'0079D305179F' -
// )
// XLAT_INCREMENTAL ( )
// INCR_IN_DSN 'RSTEST.DB4A.DBCA877F.TSCAOORGF.GGCIC3' -
// INCR_IN_LOGPOINT X'0079D307CF1E' -
// )
// )
// SPACE ( )
// DATA_BASE DBCA877F
// SPACE_NAME TSCASTAF
// OBIXDLAT ( )
// XLAT_DSN 'DB4A.DSNDB01.DBCA877G.TSCASTAG.10001.A001' -
// XLAT_IN_DSN 'RSTEST.DB4A.DBCA877F.TSCASTAF.GGCIC1' -
// XLAT_IN_LOGPOINT X'0079D3017590' -
// OBID '000512,000513' -
// PSID '000004,000004' -
// OBID '000006,000006' -
```
OBID '00007,00007'
XLAT_INCREMENTAL {
  INCR_IN_DSN 'RSTEST.D84A.DBCA877F.TSCASTAF.IIC1'
  INCR_IN_LOGPOINT X'007903032BA5'
}
XLAT_INCREMENTAL {
  INCR_IN_DSN 'RSTEST.D84A.DBCA877F.TSCASTAF.IIC2'
  INCR_IN_LOGPOINT X'00790305072E'
}
XLAT_INCREMENTAL {
  INCR_IN_DSN 'RSTEST.D84A.DBCA877F.TSCASTAF.IIC3'
  INCR_IN_LOGPOINT X'007903088E76'
}
şe

SPACE {
  DATA_BASE DBCA877F
  SPACE_NAME IS877F01
  OBIDXLAT {
    XLAT_DSN 'D84A.DSNDBD.DBCA877G.IS877G01.I0001.A001'
    XLAT_IN_DSN 'RSTEST.D84A.DBCA877F.IS877F01.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    DBID '000512,000513'
    PSID '000009,000009'
    OBID '000008,000008'
    OBID '00006,00006'
  }
  REBUILD_INDEXES
}

SPACE {
  DATA_BASE DBCA877F
  SPACE_NAME IS877F02
  OBIDXLAT {
    XLAT_DSN 'D84A.DSNDBD.DBCA877G.IS877G02.I0001.A001'
    XLAT_IN_DSN 'RSTEST.D84A.DBCA877F.IS877F02.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    DBID '000512,000513'
    PSID '000011,000011'
    OBID '000010,000010'
    OBID '00007,00007'
  }
  REBUILD_INDEXES
}

SPACE {
  DATA_BASE DBCA877F
  SPACE_NAME IX877F01
  OBIDXLAT {
    XLAT_DSN 'D84A.DSNDBD.DBCA877G.IX877G01.I0001.A001'
    XLAT_IN_DSN 'RSTEST.D84A.DBCA877F.IX877F01.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    DBID '000512,000513'
    PSID '000013,000013'
    OBID '000012,000012'
    OBID '00006,00006'
  }
  REBUILD_INDEXES
}

SPACE {
  DATA_BASE DBCA877F
  SPACE_NAME IX877F02
  OBIDXLAT {
    XLAT_DSN 'D84A.DSNDBD.DBCA877G.IX877G02.I0001.A001'
    XLAT_IN_DSN 'RSTEST.D84A.DBCA877F.IX877F02.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    DBID '000512,000513'
    PSID '000015,000015'
    OBID '000014,000014'
    OBID '00007,00007'
  }
  REBUILD_INDEXES
}

TO_CURRENT

LOG_COPY_PREFERENCE R1R2A1A2
WRITE_TO_VSAM
INCREMENTAL_SORT
USER_INDICATOR G05
OBIDXLAT with Process Index = Y (Object Profile)

The following is an example of an OBIDXLAT job with Process Index = Y on the Object profile:

```
//XLATPI  JOB  CSKUMA,CLASS=A,NOTIFY=ASYSUID,MSGCLASS=X
//
//  ************************************************************
//  Job Generated by IBM DB2 Change Accum V2R1.01
//
//  DB2 SSID:  D84A
//  SQLID:
//  Profile:  CSGCQOA.V21 IX DRPOB DBCA877F-G PIX Y
//  Desc:  V21 IX DRPOB DBCA877F-G PIX Y
//  User:  CSKUMA
//  Date:  Friday April 29, 2011
//  Time:  12:38:17.59
//
//  ************************************************************
//
//  Step:  REGISTER - Was not Generated in this Job.
//
//  Register to the IBM DB2 Automation Tool Execution and Reporting
//  facility has been bypassed because the Execution Facility started
//  task SSID (Subsystem ID) was not entered on the Setup screen for
//  this DB2 Subsystem.
//
//  If you would like your jobs to register with the Execution and
//  Reporting facility, enter option "S" from the product main menu
//  and then enter option "3" for this DB2 Subsystem. Enter a valid
//  Execution facility subsystem ID that will track this DB2
//  subsystem jobs generated by this product.
//
//  ************************************************************
//
//  Step:  CHG00102
//
//  Desc:  This step will invoke IBM Change Accum
//
//  ************************************************************
//
//  CHG00102 EXEC PGM=GGC.MAINT,REGION=000000, PARM=(D84A)
//  STEPLIB DD DSN=GGC.WK50210.LOADLIB,DISP=SHR
//              DD DSN=GGC.MNT0210.LOADLIB,DISP=SHR
//              DD DSN=FEC.MNT0130.LOADLIB,DISP=SHR
//              DD DSN=FEC.MND0130.LOADLIB,DISP=SHR
//              DD DSN=D84A.SDSNEXIT,DISP=SHR
//              DD DSN=GGC.MNT0210.LOADLIB,DISP=SHR
//              DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
//              DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//              DD DSN=FEC.PRD0130.LOADLIB,DISP=SHR
//              DD DSN=FEC.MNT0130.LOADLIB,DISP=SHR
//              DD DSN=GGC.MNT0210.LOADLIB,DISP=SHR
//              DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//              DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//              DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//              DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//              DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//              DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
//SYSUDUMP DD SYSOUT=*  //SYSOUT DD SYSOUT=*  //SORTMSGS DD SYSOUT=*  //INFOM DD DUMMY Log reader info messages  //DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL,DISP=SHR
//  SORTK001 DD UNIT=SYSDA,SPACE=(CYL,(20,1),ROUND)
//  SORTK002 DD UNIT=SYSDA,SPACE=(CYL,(20,1),ROUND)
//  SORTK003 DD UNIT=SYSDA,SPACE=(CYL,(20,1),ROUND)
//  SYSINGGC DD *
//  CHANGE_ACCUM ( GROUP (  SPACE (  DATA_BASE DBCA877F
//SPACE_NAME TSCA0R0G  //OBIDXLAT (  XLAT_DSN 'D84A.DSN000.DBCA877G.TSCA0R0G.I0001.A001'
//XLAT_IN_DSN 'RSTEST.D84A.DBCA877F.TSCA0R0G.GCIC1'
//XLAT_IN_LOGPOINT X'0079D3017590'
//DBID '000512,000513'
```
PSID '000002,000002'
OBID '000005,000005'
XLAT_INCREMENTAL
  INCR_IN_DSN 'RTEST.D84A.DBCA877F.TSCAORGF.IIC1'
  INCR_IN_LOGPOINT X'0079030268B8'
)
XLAT_INCREMENTAL
  INCR_IN_DSN 'RTEST.D84A.DBCA877F.TSCAORGF.IIC2'
  INCR_IN_LOGPOINT X'00790305179F'
)
XLAT_INCREMENTAL
  INCR_IN_DSN 'RTEST.D84A.DBCA877F.TSCAORGF.IIC3'
  INCR_IN_LOGPOINT X'00790307CF1E'
)
)
)
SPACE ( DBCA877F
  SPACE_NAME TSCASTAF
  OBIDXLAT ( XLAT_DSN 'D84A.DSN0BD.DBCA877G.TSCASTAG.10001.A001'
    XLAT_IN_DSN 'RTEST.D84A.DBCA877F.TSCASTAF.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    OBID '000512,000513'
    PSID '000004,000004'
    OBID '000006,000006'
    OBID '000007,000007'
  )
  XLAT_INCREMENTAL
    INCR_IN_DSN 'RTEST.D84A.DBCA877F.TSCASTAF.IIC1'
    INCR_IN_LOGPOINT X'0079030268A5'
  )
  XLAT_INCREMENTAL
    INCR_IN_DSN 'RTEST.D84A.DBCA877F.TSCASTAF.IIC2'
    INCR_IN_LOGPOINT X'007903050D2E'
  )
  XLAT_INCREMENTAL
    INCR_IN_DSN 'RTEST.D84A.DBCA877F.TSCASTAF.IIC3'
    INCR_IN_LOGPOINT X'007903088E76'
  )
  )
)
SPACE ( DBCA877F
  SPACE_NAME IS877F01
  OBIDXLAT ( XLAT_DSN 'D84A.DSN0BD.DBCA877G.IS877G01.10001.A001'
    XLAT_IN_DSN 'RTEST.D84A.DBCA877F.IS877F01.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    OBID '000512,000513'
    PSID '000009,000009'
    OBID '000008,000008'
    OBID '000006,000006'
  )
  )
)
SPACE ( DBCA877F
  SPACE_NAME IS877F02
  OBIDXLAT ( XLAT_DSN 'D84A.DSN0BD.DBCA877G.IS877G02.10001.A001'
    XLAT_IN_DSN 'RTEST.D84A.DBCA877F.IS877F02.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    OBID '000512,000513'
    PSID '000011,000011'
    OBID '000010,000010'
    OBID '000007,000007'
  )
  )
)
SPACE ( DBCA877F
  SPACE_NAME IX877F01
  OBIDXLAT ( XLAT_DSN 'D84A.DSN0BD.DBCA877G.IX877G01.10001.A001'
    XLAT_IN_DSN 'RTEST.D84A.DBCA877F.IX877F01.GGCIC1'
    XLAT_IN_LOGPOINT X'007903017590'
    OBID '000512,000513'
    PSID '000013,000013'
    OBID '000012,000012'
    OBID '000006,000006'
  )
  )
)
Recovering a dropped object using XLAT_DROPPED_RECOVER

This topic explains how you can recover data from dropped objects for a specified point in time using the XLAT_DROPPED_RECOVER keyword. This keyword lets you re-create all data from a dropped object as a new object using the same name or a new name.

Scenario

A Db2 Change Accumulation Tool user accidentally dropped an object ("source object") and created a new object ("target object") with the same name. Now they need to recreate the source object without changing the name of the target object and recover the original data that was in the source object to a new object ("recovered object") that has a different name. In summary:

- **Source object**: Dropped by accident (need to recover)
- **Target object**: Created with the same name as source object
- **Recovered object**: Need to create with different name and recover data from source (dropped) object

SQL queries to the (dropped) source object must be omitted because those SQL queries will fail, as the object doesn’t exist anymore. As a result, Db2 Change Accumulation Tool fetches the necessary data from the target object instead of from the source object.

**IMPORTANT**: The target object must be identical to the source object (at least created using the same DDL). If the target object is different from the source object in any way, Db2 Change Accumulation Tool will fail with unexpected errors.

Restrictions

- When using XLAT_DROPPED_RECOVER, all work should remain within the same SSID. If source and target SSIDs differ, Db2 Change Accumulation Tool will issue message GGC3832E.

- XLAT_TARGET_SSID, XLAT_TARGET_DBNAME, and XLAT_TARGET_TSNAME values should be specified for the job. If these are missing, Db2 Change Accumulation Tool will issue message GGC3834E.

- XLAT_IN_DSN and XLAT_IN_LOGPOINT should be specified for run. If these are missing, Db2 Change Accumulation Tool will issue message GGC3836E.

- The keyword TO_CURRENT cannot be specified in this mode. If this keyword is specified, Db2 Change Accumulation Tool will issue message GGC3835E.
• DATA_BASE and SPACE_NAME should be specified for this mode. If this keyword is not specified, Db2 Change Accumulation Tool will issue message GGC33833E.

**New keyword**

The following new keyword has been added:

**XLAT_DROPPED_RECOVER**

When using OBIDXLAT, include XLAT_DROPPED_RECOVER for each space that you want to recover.

**Using XLAT_DROPPED_RECOVER: Sample JCL**

The following example shows how the XLAT_DROPPED_RECOVER keyword can be used to recover a dropped object.

```plaintext
CHANGE_ACCUM ( GROUP ( SPACE ( DATA_BASE GGCDBXLA SPACE_NAME TSCA169E OBIDXLAT ( XLAT_DSN &GSID..DSNDBC.GGCDBXLB.TSCA169E.10001.A001' XLAT_IN_DSN 'DSNHLQ1..GGC310.&SSID..GGCO004B.TSCA169E.IC1' XLAT_IN_LOGPOINT X'XXXXXXXXXXXXXXXXXXXXX' XLAT_TARGET_SSID 'DC1Q' XLAT_TARGET_DNAME 'GGCDBXLB' XLAT_TARGET_TNAME 'TSCA169E' XLAT_DROPPED_RECOVER DBID '0000,0000' PSID 'PPPP,PPPP' OBID '0000,0000' ) ) ) ) END_RBA X'XXXXXXXXXXXXXXXXXXXXX'

NO_SYSCOPY_ROW
LOG_COPY_PREFERENCE R1R2A1A2
WRITE_TO_VSAM
XML_JOBS_DSN 'RSQA.GGC310.TESTCASE.TEMPLATE'
XML_JOB_SDSM_PFX 'T645'
XML_TEMPLATE_DSN 'RSQA.GGC310.TESTCASE.TEMPLATE'
XML_TEMPLATE_MEMBER 'TEMPLATE'
PARALLEL 1&PARALLEL
USER_INDICATOR &USERIND
)
```

**Allocation of an output data set on OBIDXLAT**

The following shows the allocation of an output data set on OBIDXLAT when the output data set does not exist.

```
*************** Top of Data ***************
//GGCWTV1 EXEC PGM=GGC#MAIN,REGION=0000M,
// PARM=(QAA5)
//*
//SYSUDUMP DD SYSOUT**
//SYSDUMP DD SYSOUT**
//INFORM DD DUMMY Log reader info messages
//DB2PARMS DD DSN=XXXXXX.GGC310.DB2CNTL,DISP=SHR
//*
//SR0AMSGS DD SYSOUT**
//SR0AMSGS DD SYSOUT**
```
Sort program examples

The following SORWORK DDs are generated if Sort Program Installed is set to D (DFSORT) and Sort Work File Unit Device is set to SYSDA:

//SOR0WK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR0WK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR0WK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)

The following SORWORK DDs are generated if Sort Program Installed is set to S (SYNCSORT) and Sort Work File Unit Device is set to SYSDA:

//SOR0WK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR0WK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR0WK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR1WK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR1WK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR1WK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR2WK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR2WK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
//SOR2WK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)

The following SORWORK DDs are generated if Sort Program Installed is set to D (DFSORT) and Sort Work File Unit Device is set to CXCART (a tape):

//SOR0WK01 DD UNIT=(CXCART,,DEFER),
// VOLUME=(PRIVATE,RETAIN)
//SOR0WK02 DD UNIT=(CXCART,,DEFER),

Chapter 11. Reference 513
The following SORTWORK DDs are generated if Sort Program Installed is set to S (SYNSOR) and Sort Work File Unit Device is set to CXCART (a tape):

Note: If more than one sort program is specified in JOBLIB, the sort programs will be used in the following order:
1. Db2 Sort
2. Tape Sort
3. Syncsort
4. Dfsort

Dfsort will be used by default, if no sort program is specified in JOBLIB.

Sample SYSOUT report

The SYSOUT report provides information about the Db2 Change Accumulation Tool job.

The results of a Db2 Change Accumulation Tool job are contained in the SYSOUT DD after processing. Informational and error messages relating to all phases of the job are contained in the report. In the sample report:

- A change accumulation image copy is taken of two table spaces, one non-partitioned, the other with ten partitions.
- Both spaces reside in a DB2 V8 data sharing environment (the data sharing group has 4 nodes, D8A, D8B, D8C and D8D).
- Updates were made to D8A and D8B.
- Logging activity occurred on DB2 DS nodes.
• An incremental IC existed for the non-partitioned TS (TSCASTAF).
• A change accumulation mini log existed for the partitioned table space (all parts of TSCAPART).
• A local primary and local backup are taken for each DB.TS.

The JCL that follows was created by GGC to build GGC Image Copy JCL in batch mode for the specified job profile:

**JCL created by Db2 Change Accumulation Tool to build an image copy job in batch mode**

In this example, object, utility, and job profiles are first set up and then the job profile is built in batch mode to create this JCL. When this JCL is run, the Db2 Change Accumulation Tool image copy JCL (as per the job profile setup in this example) is created in 'CSKUMA.GGC.210.JOBGEN(GGCIC)'.

GEN_TO_DATASET CSKUMA.GGC210.JOBGEN shows the data set where the output JCL would be generated.

GEN_TO_MEMBER GGIC shows the member name that would be used in the data set.

DB2_SUBSYSTEM D8A shows the subsystem.

PROFILE_NAME 'GGC IMAGE COPY' is the job profile name and PROFILE_CREATOR CSGGCQA is the job profile creator.

*************** Top of Data ***************

//GGCBLDIC JOB CSKUMA,CLASS=A,NOTIFY=&SYSUID
//*
//*
//*
//* Job Generated by IBM DB2 Change Accum V2R1.01  *
//*
//*
//* DB2 SSID: D8A  *
//* SQLID:          *
//* Profile: CSGGCQA.GGC IMAGE COPY  *
//* Desc: GGC IMAGE COPY  *
//* User: CSKUMA  *
//* Date: Thursday October 23, 2008  *
//* Time: 17:34:47.93  *
//*
//*
//*
//** * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
//*
//* Step: GGC@BUILD  *
//*
//* Desc: This job will generate the JCL for jobs profile  *
//* CSGGCQA.GGC IMAGE COPY in a batch mode.  *
//* The generated job will be placed in dataset  *
//* CSKUMA.GGC210.JOBGEN(GGCIC).  *
//*
//* Return Codes:  *
//*
//* (00) - Job was built successfully with no warnings or errors  *
//* (04) - Job was built with warning messages and the Build Job on  *
//* Errors indicator was a "Y" or "W"  *

Chapter 11. Reference  515
Accumulation Tool for z/OS

// (06) - Job was not built - Exception processing did not flag any objects to process.

// (08) - Job was built with error messages and the Build Job on Errors indicator was a "Y"

// (12) - Job was not built - Errors were detected and the Build Job on Errors indicator was not a "Y"

// Note: Build Job on Errors is an option in the Jobs Profile Options screen. This option has the following values:
"Yes" - Build job on Errors or Warnings
"No" - Do not build job on Errors or Warnings
"Warnings" - Build job only if highest severity is a warning message.

// Create temp dataset to bypass enqueue failure in ISPF

//PROFILE EXEC PGM=IEFBR14
/TEMP DD DSN=&&TEMP,DISP=(NEW,PASS,DELETE),
   UNIT=SYSDA,SPACE=(TRK,(1,1,5)),
   DCB=ISP.SISPTENU
/

// Run DB2 Change Accum Build

//GGC10BUL EXEC PGM=IKJEFT1A,REGION=0000M
/

//GGCERROR DD SYSOUT=*;
//DLCEXCP DD SYSOUT=*;
//EXCEPTNS DD SYSOUT=*;
//RUNSTATS DD SYSOUT=*;
//TRIGGERS DD SYSOUT=*;
//UTPRINT DD SYSOUT=*;
//STPRIN01 DD SYSOUT=*;
//SYSSTSPRT DD SYSOUT=*;
//SYSOUT DD SYSOUT=*;
//DLDEBUG DD SYSOUT=*;
//DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL.TPKG,DISP=SHR
//SYSPROC DD DSN=ROCKET.USER.CLIST,DISP=SHR
//STEPLIB DD DSN=RSQA.GGC210.IBMLOAD,IDG=(RECFM=FB,LRECL=133,BLKSIZE=1330)
   UNIT=SYSDA,SPACE=(CYL,(30,30)),
   SYSOUT=*,DCB=(RECFM=VA,LRECL=125,BLKSIZE=129)
// DSN=DSN.V810.SDSNLOAD,DISP=SHR
// DSN=DDS2.SDSNEXIT,DISP=SHR
// DSN=RSTEST.GGC210.DB2CNTL.TPKG,DISP=SHR
// DSN=&&TEMP,DISP=(NEW,PASS,DELETE),
DCB=ISP.SISPTENU
/

// Errors message.

// Jobs was not built.

// Values:
// Warning messages
// Error messages
// Is the highest severity a warning message.

// EXEC PGM=IEFBR14
//DCB=(RECFM=FB,LRECL=80,BLKSIZE=800)
//ISPF EXEC PGM=CSKUMA.GGC210.JOBGEN,DISP=SHR
//ISPL1G EXEC DSN=SYSDS.TEMP,DCB=(RECFM=VA,LRECL=125,BLKSIZE=129)
//ISPRK1 EXEC UNIT=SYSDA,SPACE=(CYL,(30,30)),
// DDB=RECFM=FB,LRECL=133,BLKSIZE=1330)
//SYSTSPRT DD SYSOUT=*;
PROFILE NOPREFIX
ISPSTART PGM(GGC@BULD)
/
//GGC#DATA DD *
GENERATE_UTILITY_JOB {
  DB2_SUBSYSTEM  DBA  
  USER_INDICATOR  GGC  
  PROFILE_NAME  'GGC IMAGE COPY'  
  PROFILE_CREATOR  CSGGQA  
  PROFILE_DESCRIPTION  'GGC IMAGE COPY'  
  EXECUTION_LIB_2  RSQA.GGC210.IBUTAPE.SGGCLOAD  
  EXECUTION_LIB_4  RSQA.GGC210.IBUTAPE.SFCLOAD  
  GEN_TO_DATASET  CSKUMA.GGC210.JOBBGEN  
  DEBUG MODE  OFF  
  GEN_TO_MEMBER  GGCIC  
  JOB_CARD_1_1  'GGCIC' JOB CSKUMA,CLASS=A,NOTIFY=&SYSUID  
  JOB_CARD_1_2  'SUID'  
  JOB_CARD_2_1  '/*'  
  JOB_CARD_3_1  '/*'  
  JOB_CARD_4_1  '/*'  
}
/
******************************************************************************
GGCIC data sets for each object. When this JCL

********************************

//GGCIC

GENERATE_UTILITY_JOB
ISPSTART
JOB_CARD_3_1
JOB_CARD_2_1
JOB_CARD_1_2
GEN_TO_MEMBER
EXECUTION_LIB_2
PROFILE_CREATOR
PROFILE_NAME
PROFILE_DESCRIPTION
EXECUTION_LIB_4
GEN_TO_DATASET
DEBUG MODE
GEN_TO_MEMBER
JOB_CARD_1_1
JOB_CARD_1_2
JOB_CARD_2_1
JOB_CARD_3_1
JOB_CARD_4_1
/
******************************************************************************
Db2 Change Accumulation Tool Image Copy JCL

When the JCL in the previous section is submitted, the following JCL is created in
'CSKUMA.GGC210.JOBBGEN(GGCIC)' data set as per the job profile 'GGC IMAGE COPY' with a job profile creator CSGGQA and DB2 Subsystem ID DBA. The JCL
is a Db2 Change Accumulation Tool image copy job which creates IC_LP, IC LB
data sets for each object. When this JCL is run, LP/LB image copy is created for each
partition on DBCAFART and LP/LB image copy is created for DBCASTAF.

******************************************************************************

//GGCIC

GENERATE_UTILITY_JOB
ISPSTART
JOB_CARD_3_1
JOB_CARD_2_1
JOB_CARD_1_2
GEN_TO_MEMBER
EXECUTION_LIB_2
PROFILE_CREATOR
PROFILE_NAME
PROFILE_DESCRIPTION
EXECUTION_LIB_4
GEN_TO_DATASET
DEBUG MODE
GEN_TO_MEMBER
JOB_CARD_1_1
JOB_CARD_1_2
JOB_CARD_2_1
JOB_CARD_3_1
JOB_CARD_4_1
/
******************************************************************************
Step: CHG00102
Desc: This step will invoke IBM Change Accum

CHG00102 EXEC PGM=GCC#MAIN,REGION=0000M,
   PARM=(D8A)
   /usr
   STEPLIB DD DSN=RSQA.GGC210.IBMTAPE.SGGCLOAD,DISP=SHR
   DD DSN=RSQA.GGC210.IBMTAPE.SFECLOAD,DISP=SHR
   DD DSN=DDS2.SDSNEXIT,DISP=SHR
   DD DSN=DSN.V810.SDSNLOAD,DISP=SHR
   SYSUDUMP DD SYSOUT=*
   SYSOUT DD SYSOUT=*
   SORTMSG DD SYSOUT=*
   INFO DD DUMMY
   //DB2PARMS DD DSN=RSTEST.GGC210.DB2CNTL.TPKG,DISP=SHR
   /usr
   //SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
   SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
   SORTWK03 DD UNIT=SYSDA,SPACE=(CYL,(20,1),,,ROUND)
   /usr
   //CALP0001 DD DSN=RSTEST.DBCAPART.TSCAPART.P00001.ICLP,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALB0001 DD DSN=RSTEST.DBCAPART.TSCAPART.P00001.ICLB,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALP0002 DD DSN=RSTEST.DBCAPART.TSCAPART.P00002.ICLP,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALB0002 DD DSN=RSTEST.DBCAPART.TSCAPART.P00002.ICLB,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALP0003 DD DSN=RSTEST.DBCAPART.TSCAPART.P00003.ICLP,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALB0003 DD DSN=RSTEST.DBCAPART.TSCAPART.P00003.ICLB,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALP0004 DD DSN=RSTEST.DBCAPART.TSCAPART.P00004.ICLP,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALB0004 DD DSN=RSTEST.DBCAPART.TSCAPART.P00004.ICLB,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALP0005 DD DSN=RSTEST.DBCAPART.TSCAPART.P00005.ICLP,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
      SPACE=(TRK,(3,3),RLSE)
   //CALB0005 DD DSN=RSTEST.DBCAPART.TSCAPART.P00005.ICLB,
      DISP=(NEW,CATLG,CATLG),
      UNIT=SYSDA,
Chapter 11. Reference 519

//CALP0006 DD DSN=RSTEST.DBCAPART.TSCAPART.P00006.ICLP,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALB0006 DD DSN=RSTEST.DBCAPART.TSCAPART.P00006.ICLB,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALP0007 DD DSN=RSTEST.DBCAPART.TSCAPART.P00007.ICLP,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALB0007 DD DSN=RSTEST.DBCAPART.TSCAPART.P00007.ICLB,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALP0008 DD DSN=RSTEST.DBCAPART.TSCAPART.P00008.ICLP,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALB0008 DD DSN=RSTEST.DBCAPART.TSCAPART.P00008.ICLB,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALP0009 DD DSN=RSTEST.DBCAPART.TSCAPART.P00009.ICLP,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALB0009 DD DSN=RSTEST.DBCAPART.TSCAPART.P00009.ICLB,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALP0010 DD DSN=RSTEST.DBCAPART.TSCAPART.P00010.ICLP,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALB0010 DD DSN=RSTEST.DBCAPART.TSCAPART.P00010.ICLB,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(3,3),RLSE)  
//CALP0011 DD DSN=RSTEST.DBCASTAF.TSCASTAF.ICLP,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(1,1),RLSE)  
//CALB0011 DD DSN=RSTEST.DBCASTAF.TSCASTAF.ICLB,  
//DISP=(NEW,CATLG,CATLG),  
//UNIT=SYSDA,  
//SPACE=(TRK,(1,1),RLSE)  
//SYSINGGC DD *  
CHANGE_ACCUM (  
GROUP (  
   SPACE (  
      DATA_BASE DBCAPART  
      SPACE_NAME TSCAPART  
      PARTITION 1  
   )  
   SPACE (  
      DATA_BASE DBCAPART  
      SPACE_NAME TSCAPART  
      PARTITION 2  
   )  
   SPACE (  
      DATA_BASE DBCAPART  
      SPACE_NAME TSCAPART  
      PARTITION 3  
   )  
)  

SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCAPART  
  PARTITION 4  
)  
  
SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCAPART  
  PARTITION 5  
)  
  
SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCAPART  
  PARTITION 6  
)  
  
SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCAPART  
  PARTITION 7  
)  
  
SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCAPART  
  PARTITION 8  
)  
  
SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCAPART  
  PARTITION 9  
)  
  
SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCAPART  
  PARTITION 10  
)  
  
SPACE (  
  DATA_BASE DBCAPART  
  SPACE_NAME TSCASTAF  
  TO_CURRENT  
)  
  
LOG_COPY_PREFERENCE R1R2A1A2  
WRITE_TO_COPIES  
INCREMENTAL_SORT  
USER_INDICATOR GGC  
)  
  
/*  
//  
*************** Bottom of Data ***************  

Output from running JCL to build a Db2 Change Accumulation Tool image copy JCL in batch mode for a job profile  

The following stdout output after running the JCL in the first example.
***** JES2 JOB STATISTICS *****
23 OCT 2008 JOB EXECUTION DATE
122 CARDS READ
369 SYSOUT PRINT RECORDS
0 SYSOUT PUNCH RECORDS
26 SYSOUT SPOOL KBYTES
0.11 MINUTES EXECUTION TIME

1 //GCCBUILDIC JOB CSKUMA,CLASS=A,NOTIFY=ASYSID J0230517
   //
   //
   // *****************************************************
   //
   // Job Generated by IBM DBZ Change Accum V2R1.01
   //
   // DBZ SSID: DBA
   // SQLID:
   // Profile: CSGGQA.GGC IMAGE COPY
   // Desc: GGC IMAGE COPY
   // User: CSKUMA
   // Date: Thursday October 23, 2008
   // Time: 17:34:47.93
   //
   // *****************************************************
   //
   // Step: GCCOBUILD
   //
   // Desc: This job will generate the JCL for jobs profile
   // CSGGQA.GGC IMAGE COPY in a batch mode.
   // The generated job will be placed in dataset
   // CSKUMA.GGC210.JOBGEN(GGCIC).
   //
   // Return Codes:
   // (00) - Job was built successfully with no warnings or errors
   // (04) - Job was built with warning messages and the Build Job on
   // Errors indicator was a "Y" or "W"
   // (06) - Job was not built - Exception processing did not flag
   // any objects to process.
   // (08) - Job was built with error messages and the Build Job on
   // Errors indicator was a "Y"
   // (12) - Job was not built - Errors were detected and the Build Job
   // on Errors indicator was not a "Y"
   //
   // Note: Build Job on Errors is an option in the Jobs Profile
   // Options screen. This option has the following values:
   // "Y" - Build job on Errors or Warnings
   // "N" - Do not build job on Errors or Warnings
   // "W" - Build job only if highest severity is a
   // warning message.
   //
   // Create temp dataset to bypass enqueue failure in ISPF
   //
   //*************************************************************
   // JFC6531 SUBSTITUTION JCL - CSKUMA,CLASS=A,NOTIFY=CSKUMA
   //*************************************************************
   //PROFILE EXEC PGM=IEFBR14
   //TEMP DD DSN=&TEMP,DISP=(NEW,PASS,DELETE),
   // UNIT=SYSQA,SPACE=(TRK,(1,1,3)),
   // PCB=ISP.SISPTENU
   //
   //*************************************************************
   // Run DBZ Change Accum Build
   //*************************************************************
   //GCCBUILD EXEC PGM=IKJEFT1A,REGION=0000M
   //
   //*************************************************************
   // GCERROR DD SYSOUT=
   // DCLE$EXCP DD SYSOUT=
   // /EXCEPINS DD SYSOUT=
   // RUNSTATS DD SYSOUT=
   // TRIGGERS DD SYSOUT=
   // UTPRINT DD SYSOUT=
   // STPRIN01 DD SYSOUT=
   // SYSTSPRT DD SYSOUT=
   // SYSOPT DD SYSOUT=
   // DODEBUG DD SYSOUT=
   // DBZPARMS DD DSN=RSTEST.GGC210.DBZCNTL.TPKS,DISP=SHR
   // SYSPROC DD DSN=ROCKET.USER.CLIST,DISP=SHR
   // /STPLIB DD DSN=RSQA.GGC210.IMBTAPE.GGCLOAD,DISP=SHR
   // DD DSN=RSQA.GGC210.IMBTAPE.SFCLOAD,DISP=SHR
   // DD DSN=DS2.S05NEXT,DISP=SHR
   // DSN=DSN.VB30.DSNSLOAD,DISP=SHR
   // /ISPLIB DD DSN=RSQA.GGC210.IMBTAPE.GGCLOAD,DISP=SHR
   // DD DSN=RSQA.GGC210.IMBTAPE.SFCLOAD,DISP=SHR

Chapter 11. Reference 521
ICH00011  LAST ACCESS AT 17:02:54 ON THURSDAY, OCTOBER 23, 2008

IET2361 ALLOC FOR GGCBLDIC PROFILE

IGO1011 SMS ALLOCATED TO DONAME (TEMP )

DSN (SYS08297.T173602.RA000.GGCBLDIC.TEMP,HOS )

STORCLASS (TEMP) MGMTCLASS ( ) DATACLASS ( )

VOL SER NOS- WP104

IETF421 GGCBLDIC PROFILE - STEP WAS EXECUTED - COND CODE 0000

IGO1061 SYS08297.T173602.RA000.GGCBLDIC.TEMP,HOS PASSED, DONAME=TEMP

RTKS0110------------------------------------

- Step Termination Statistics

- Program Name IEFBR14 HH:MM:SS.hh -
- Step Name PROFILE Elapsed Time 00:00:00.04 -
- Procedure Step -
- Step Number 1 TCB CPU Time 00:00:00.01 -
- Substep Number 0 SRR CPU Time 00:00:00.00 -
- Return Code 00 Other CPU Time 00:00:00.00 -
- Tape Mounts 0 Total CPU Time 00:00:00.00 -
- Total I/O 0 Connect Time/ms 0 -
- Region Size 1024K -
- - -
-----------Below 10Meg---------- ----------Above 10Meg----------
- Private Area 9182K Private Area 1490944K -
- Max Allocated 4K Max Allocated 4K -
- LSQA And SMA 236K LSQA And SMA 10364K -

---

IETF371 STEP/PROFILE /START 2008297.1736
IETF371 STEP/PROFILE /STOP 2008297.1736 CPU OMIN 00.01SEC SRB OMIN 00.00SEC VIRT 4K SYS 236K EXT 4K SYS 10364K
IETF371 ALLOC FOR GGCBLDIC GGCBUILD
IETF371 JESS ALLOCATED TO GGCERROR
IETF371 JESS ALLOCATED TO DLSIEXCP
IETF371 JESS ALLOCATED TO EXCEPTNS
IETF371 JESS ALLOCATED TO RUNSTATS
IETF371 JESS ALLOCATED TO TRIGGERS
IETF371 JESS ALLOCATED TO UTPRINT
IETF371 JESS ALLOCATED TO STRPRN01
IETF371 JESS ALLOCATED TO SYSSTSPRT
IETF371 JESS ALLOCATED TO SYSOUT
IETF371 JESS ALLOCATED TO DLODEBUG
IGO1031 SMS ALLOCATED TO DONAME DRZPARMS
IGO1031 SMS ALLOCATED TO DONAME SYSPROC
IGO1031 SMS ALLOCATED TO DONAME STEPLIB
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME
IGO1031 SMS ALLOCATED TO DONAME

522 IBM Db2 Change Accumulation Tool for z/OS
Chapter 11. Reference 523
Following are the objects included in generated JCL based on the Utility Profile EXCEPTION RULE. Note that the ACCEPTED count includes Objects that met both Exception Profile and Reallocation Utility Criteria even though there is no EXCEPTION RULE for a Reallocation Utility. If there is no Exception Profile in the Job, all Objects default to ACCEPTED Objects.

Number of Accepted Objects..................................11
Number of Rejected Objects..................................0
Total Number of Objects Included in Generated JCL...........11

Index-DS DS-Current- Cur New-Primar New-Second New--DB2 New--DB2 Acct Rej

Jobname- Type TableSp Database Part#-Name- Ext Num Allocation --Used-- Uid Allocation Allocation Allocat Uid Util Utili

--Tracks-- 4K-Blocks- Hits--Tracks- Primary- Secondary Count Count

GGCIC  $ TSCAPART DBCAPART 00001 001 001 0000000003 0000000036 00 0000000000 0000000000 0000000000 0000000000 0000000000 0000000000 0000000000 0000000000 0000000000

IBM Shared Profile Support messages follow:

Using JOBS Profile CSGGCQA.GGC IMAGE COPY that includes:

OBJJ Profile CSGGCQA.DBCAPART DBCASTAF
CHQA Profile CSGGCQA.GGCIC
Output from a Db2 Change Accumulation Tool image copy job

The following is the sst output that results from running a Db2 Change Accumulation Tool image copy job:

JES2 JOBLOG -- SYSTEM R522 -- NODE BOSTON

16.54.29 J0230140 --- THURSDAY, 23 OCT 2008 ---

16.54.29 J0230140 IR00101 USERID CKSUNA IS ASSIGNED TO THIS JOB.
16.54.29 J0230140 IR00111 SEACLEB 02HIGH IS ASSIGNED TO THIS JOB.
16.54.21 J0230140 ICH70001I CSUNAMS LAST ACCESS AT 16:53:08 ON THURSDAY, OCTOBER 23, 2008
16.54.20 J0230140 HSP3731 GGCBLDIC STARTED - INIT 6 - CLASS A - SYS R522
16.54.21 J0230140 IF4031I GGCBLDIC - STARTED - TIME=16.54.21
16.54.24 J0230140 IGD1011I SMS ALLOCATED TO DONDME (SYSIN ) 777
16.54.25 J0230140 IGD1011I SMS ALLOCATED TO DONDME (SYSPRINT) 778
16.54.25 J0230140 IGD1011I SMS ALLOCATED TO DONDME SORTOUT1
16.54.25 J0230140 IGD1011I SMS ALLOCATED TO DONDME SORTOUT2

Vol SER NOS= WKPI01

16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00020
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00021
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00022
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00023
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00024
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00025
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00026
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00027
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00028
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00029
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00030
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00031
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00032
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00033
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00034
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00035
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00036
16.54.28 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00037

16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00038
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00039
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00040
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00041
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00042
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00043
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00044
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00045
16.54.29 J0230140 IGD1011I SMS ALLOCATED TO DONDME SYS00046

TOTALS:

23 Oct 2008 Job Execution Date

16.54.20 J0230140 IGD1011I SMS ASSIGNED TO DONDME (SORTOUT1) 780
16.54.20 J0230140 IGD1011I SMS ASSIGNED TO DONDME (SORTOUT2) 781
16.54.20 J0230140 IGD1011I SMS ASSIGNED TO DONDME (SYSPRINT) 782

Chapter 11. Reference 525
IBM DB2 Change Accumulation Tool for z/OS
ICH70001I CSKUMA LAST ACCESS AT 16:53:08 ON THURSDAY, OCTOBER 23, 2008
IEF236I ALLOC. FOR GGCBLDIC CHG00102
IGD103I SMS ALLOCATED TO DODNAME STEPLIB
IGD103I SMS ALLOCATED TO DODNAME
IGD103I SMS ALLOCATED TO DODNAME
IEF237I JES2 ALLOCATED TO SYSUDUMP
IEF237I JES2 ALLOCATED TO SYSOUT
IEF237I JES2 ALLOCATED TO SORTMSGS
IEF237I DMY ALLOCATED TO INFORM
IGD103I SMS ALLOCATED TO DODNAME DB2PARMS
IGD101I SMS ALLOCATED TO DODNAME (SORTWK01)
  DSN (SYS08297.T165421.RA000.GGCBLDIC.R0511961 )
  STORCLAS (TEMP) MGMTCLAS ( ) DATACLAS ( )
  VOL SER NOS= WKP104
IGD101I SMS ALLOCATED TO DODNAME (SORTWK02)
  DSN (SYS08297.T165421.RA000.GGCBLDIC.R0511962 )
  STORCLAS (TEMP) MGMTCLAS ( ) DATACLAS ( )
  VOL SER NOS= WKP105
IGD101I SMS ALLOCATED TO DODNAME (SORTWK03)
  DSN (SYS08297.T165421.RA000.GGCBLDIC.R0511963 )
  STORCLAS (TEMP) MGMTCLAS ( ) DATACLAS ( )
  VOL SER NOS= WKP106
IGD101I SMS ALLOCATED TO DODNAME (CALP001)
  DSN (RSTEST.DBCAPART.TSCAPART.P00001.ICLP )
  STORCLAS (SG2) MGMTCLAS (STANDARD) DATACLAS ( )
  VOL SER NOS= R1P103
IGD101I SMS ALLOCATED TO DODNAME (CALB0001)
DSN (RSTEST.DBCAPART.TSCAPART.P00008.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI07

IGI010I SMS ALLOCATED TO DONAME (CALBP0008)
DSN (RSTEST.DBCAPART.TSCAPART.P00008.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI07

IGI010I SMS ALLOCATED TO DONAME (CALBP0009)
DSN (RSTEST.DBCAPART.TSCAPART.P00009.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI19

IGI010I SMS ALLOCATED TO DONAME (CALBP0010)
DSN (RSTEST.DBCAPART.TSCAPART.P00010.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI10

IGI010I SMS ALLOCATED TO DONAME (CALBP0011)
DSN (RSTEST.DBCAPART.TSCAPART.P00011.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI14

IGI010I SMS ALLOCATED TO DONAME (CALBP0012)
DSN (RSTEST.DBCAPART.TSCAPART.P00012.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI12

IGI010I SMS ALLOCATED TO DONAME (CALBP0003)
DSN (RSTEST.DBCAPART.TSCAPART.P00003.ICLP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI12

IGI010I SMS ALLOCATED TO DONAME (CALBP0004)
DSN (RSTEST.DBCAPART.TSCAPART.P00004.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI05

IGI010I SMS ALLOCATED TO DONAME (CALBP0005)
DSN (RSTEST.DBCAPART.TSCAPART.P00005.ICLP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI11

IGI010I SMS ALLOCATED TO DONAME (CALBP0006)
DSN (RSTEST.DBCAPART.TSCAPART.P00006.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI11

IGI010I SMS ALLOCATED TO DONAME (CALBP0007)
DSN (RSTEST.DBCAPART.TSCAPART.P00007.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI10

IGI010I SMS ALLOCATED TO DONAME (CALBP0008)
DSN (RSTEST.DBCAPART.TSCAPART.P00008.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI09

IGI010I SMS ALLOCATED TO DONAME (CALBP0009)
DSN (RSTEST.DBCAPART.TSCAPART.P00009.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI08

IGI010I SMS ALLOCATED TO DONAME (CALBP0010)
DSN (RSTEST.DBCAPART.TSCAPART.P00010.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI07

IGI010I SMS ALLOCATED TO DONAME (CALBP0011)
DSN (RSTEST.DBCAPART.TSCAPART.P00011.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI06

IGI010I SMS ALLOCATED TO DONAME (CALBP0012)
DSN (RSTEST.DBCAPART.TSCAPART.P00012.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI05

IGI010I SMS ALLOCATED TO DONAME (CALBP0003)
DSN (RSTEST.DBCAPART.TSCAPART.P00003.ICLP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI14

IGI010I SMS ALLOCATED TO DONAME (CALBP0004)
DSN (RSTEST.DBCAPART.TSCAPART.P00004.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI12

IGI010I SMS ALLOCATED TO DONAME (CALBP0005)
DSN (RSTEST.DBCAPART.TSCAPART.P00005.ICLP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI11

IGI010I SMS ALLOCATED TO DONAME (CALBP0006)
DSN (RSTEST.DBCAPART.TSCAPART.P00006.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI11

IGI010I SMS ALLOCATED TO DONAME (CALBP0007)
DSN (RSTEST.DBCAPART.TSCAPART.P00007.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI10

IGI010I SMS ALLOCATED TO DONAME (CALBP0008)
DSN (RSTEST.DBCAPART.TSCAPART.P00008.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI09

IGI010I SMS ALLOCATED TO DONAME (CALBP0009)
DSN (RSTEST.DBCAPART.TSCAPART.P00009.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI08

IGI010I SMS ALLOCATED TO DONAME (CALBP0010)
DSN (RSTEST.DBCAPART.TSCAPART.P00010.ILCLB )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI07

IGI010I SMS ALLOCATED TO DONAME (CALBP0011)
DSN (RSTEST.DBCAPART.TSCAPART.P00011.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI06

IGI010I SMS ALLOCATED TO DONAME (CALBP0012)
DSN (RSTEST.DBCAPART.TSCAPART.P00012.ILCP )
STORCLAS (SG2) MMTCLAS (STANDARD) DATACLAS ( )
VOL SER NOS= RIPI05

IGI010I SMS ALLOCATED TO DONAME (SYS00001)
DSN (SYS08297.T165423.RA000.GGCBLDIC.R0511964 )
STORCLAS (TEMP) MMTCLAS ( ) DATACLAS ( )
VOL SER NOS= WP106

IGI010I SMS ALLOCATED TO DONAME SYS00002

IGI010I SMS ALLOCATED TO DONAME SYS00003
Chapter 11. Reference  529
### Step Termination Statistics

- **Program Name**: GGCMMAIN
- **Step Name**: CHG00010

<table>
<thead>
<tr>
<th>Procedure Step</th>
<th>Step Number</th>
<th>TCB CPU Time</th>
<th>SRB CPU Time</th>
<th>Other CPU Time</th>
<th>Total CPU Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>00:00:01:03</td>
<td></td>
<td></td>
<td>00:00:01:03</td>
</tr>
</tbody>
</table>
- **Return Code**: 00
- **Mounts**: 0
- **Total I/O**: 2141
- **Connect Time/Sec**: 2365
- **Private Area**: 9192K
- **Above Private Area**: 1490944K
- **Max Allocated**: 3388K
- **LSQA and SMA**: 372K

### DD Name Information

<table>
<thead>
<tr>
<th>DD Name</th>
<th>Unit</th>
<th>Blksize</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEPLIB</td>
<td>OC68</td>
<td>32760</td>
<td>93</td>
</tr>
<tr>
<td>STEPLIB</td>
<td>OC31</td>
<td>32760</td>
<td>205</td>
</tr>
<tr>
<td>STEPLIB</td>
<td>OC14</td>
<td>32760</td>
<td>1</td>
</tr>
<tr>
<td>STEPLIB</td>
<td>OB05</td>
<td>32760</td>
<td>487</td>
</tr>
<tr>
<td>DDPARMS</td>
<td>OB76</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>SORTWK01</td>
<td></td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SORTWK02</td>
<td></td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>SORTWK03</td>
<td></td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CALP0001</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0001</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0002</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0002</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0003</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0003</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0004</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0004</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0005</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0005</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0006</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0006</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0007</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0007</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0008</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0008</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0009</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0009</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0010</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0010</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALP0011</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
<tr>
<td>CALB0011</td>
<td></td>
<td>24576</td>
<td>1</td>
</tr>
</tbody>
</table>

### EXECUTED

- **COND**: 2141
Chapter 11. Reference 531
The image copy contains one partition (00005).

The image copy will process DSN: RSTEST.DBCAPART.TSCAPART.DSNM006 for tablespace DBCAPART.TSCAPART PART 00006 LRSN/RBA='X'330221C778F7' (2008-10-23-20.52.50.215920)

The image copy contains one partition (00005).

The image copy will process DSN: RSTEST.DBCAPART.TSCAPART.DSNM007 for tablespace DBCAPART.TSCAPART PART 00007 LRSN/RBA='X'330221C778F7' (2008-10-23-20.52.50.215920)

The image copy contains one partition (00005).

The image copy will process DSN: RSTEST.DBCAPART.TSCAPART.DSNM008 for tablespace DBCAPART.TSCAPART PART 00008 LRSN/RBA='X'330221C778F7' (2008-10-23-20.52.50.215920)

The image copy contains one partition (00005).

The image copy will process DSN: RSTEST.DBCAPART.TSCAPART.DSNM009 for tablespace DBCAPART.TSCAPART PART 00009 LRSN/RBA='X'330221C778F7' (2008-10-23-20.52.50.215920)

The image copy contains one partition (00005).

The image copy will process DSN: RSTEST.DBCAPART.TSCAPART.DSNM010 for tablespace DBCAPART.TSCAPART PART 00010 LRSN/RBA='X'330221C778F7' (2008-10-23-20.52.50.215920)

The image copy contains one partition (00005).

The image copy will process DSN: RSTEST.DBCAPART.TSCAPART.DSNM011 for tablespace DBCAPART.TSCAPART PART 00011 LRSN/RBA='X'330221C778F7' (2008-10-23-20.52.50.215920)

Database log processing has begun on subsystem DBC


**Chapter 11. Reference**

533
OBIDXLAT examples

The following provide examples of OBIDXLAT usage.

OBIDXLAT for Database.Tablespace

The following is an example of an OBIDXLAT for Database.Tablespace:

```plaintext
SPACE (DATA_BASE 'DBCA184C'
   SPACE_NAME 'TSCA184C'
   OBIDXLAT (XLAT_DSN 'QDS4.DSNDBC.DBCA184D.TSCA184D.I0001.A001'
             DBID '000879,000880'
             PSID '000002,000002'
             OBID '00003,00003')
)

where:
DATA_BASE
   The database name.
SPACE_NAME
   The table space name.
XLAT_DSN
   The target tablespace VSAM data set name.
DBID/PSID/OBID
   (Source, Target) the DBID/PSID/OBID for Database.Tablespace from SYSIBM.SYSTABLES. For AUXILIARY LOB table space, the OBID is from SYSIBM.SYSTABLESPACE. All are enclosed in quotes.

OBIDXLAT for Database.Indexspace

The following is an example of an OBIDXLAT for Database.Indexspace on a SPACE(..) set:

```plaintext
SPACE (DATA_BASE 'DBCA184C'
   SPACE_NAME 'ISCA18SX'
   OBIDXLAT (XLAT_DSN 'QDS4.DSNDBC.DBCA184D.ISCA18TX.I0001.A001'
             DBID '000879,000880'
             PSID '000005,000005'
             OBID '00004,00004'
             OBID '00003,00003')
)

where:
DATA_BASE
   The database name.
SPACE_NAME
   The index space name.
XLAT_DSN
   The target index space VSAM data set name.
The DBID from SYSIBM.SYSINDEXES, enclosed in quotes.

The ISOBID from SYSIBM.SYSINDEXES, enclosed in quotes.

The OBID from SYSIBM.SYSINDEXES, enclosed in quotes.

The OBID from SYSIBM.SYSTABLES, enclosed in quotes.

Note: For Database.Indexspace there are 2 sets of OBID pairs. The OBID pair for indexes must be listed first and then the OBID pair for tables. The order of OBID's is significant (indexes must be before tables).

Rebuild Indexes and OBIDXLAT

All separately added index objects related to a given table space object are ignored as duplicates if Process IX is Y on that table space object. So for REBUILD_INDEXES with OBIDXLAT, Process IX should be set to N for the table space object and all related index objects should be added separately and the corresponding OBIDXLAT information for index objects should be specified.

When performing a rebuild indexes operation with OBIDXLAT, the OBIDXLAT option must be specified for each index space that is to be rebuilt. For example:

```
SPACE ( -
  DATA_BASE DBCA2512 -
  SPACE_NAME TSCA2512 -
  OBIDXLAT ( -
    XLAT_DSN 'D91A.DSNDBC.DBCA2512.TSCA2512.I0001.A001' -
    DBID '002012,006160' -
    PSID '000002,000002' -
    OBID '00003,00003' -
  ) -
) -
SPACE ( -
  DATA_BASE DBCA2512 -
  SPACE_NAME ISTF2512 -
  OBIDXLAT ( -
    XLAT_DSN 'D91A.DSNDBC.DBCA2512.ISTF2512.I0001.A001' -
    DBID '002012,006160' -
    PSID '000005,000005' -
    OBID '00004,00004' -
  ) -
) -
SPACE ( -
  DATA_BASE DBCA2512 -
)
```

Generating REBUILD INDEXES for TARGET on OBIDXLAT

To generate REBUILD INDEXES for TARGET on OBIDXLAT:

1. Configure the object profile. Setup OBIDXLAT information for Database.Tablespace on the GGC$OXL panel and Database.Indexspace information on the GGC$OXLI panel. Database.Tablespace and Dataspace.Indexspace OBIDXLAT information are required.

2. Configure the utility profile. Set the Process Index option to P on the Update Utility Profile panel (GGC$UOPT).

3. Build the Job Profile. OBIDXLAT job will now be generated with Database.Tablespace, Database.Indexspace and REBUILD_INDEXES keyword.
Generating DB2 REBUILD INDEX step for TARGET DB.TS on OBIDXLAT

To generate DB2 REBUILD INDEX step for TARGET DB.TS on OBIDXLAT:

1. Configure the object profile.
   a. On the Update Object Profile Display panel (GGC$OPRU), set the Process IX field to Y.
   b. Set up OBIDXLAT information on the (GGC$OXL) panel and specify the Alt Output DBNAME.TSNAME.

2. Configure the Utility Profile.
   a. On the Utility Profiles Options panel (GGC$UOPT), set the DB2 Rebuild Index ALL step option to Y.
   b. If the Source and Target SSID are different, then on the Utility Profiles Options panel (GGC$UOPT), key in the target SSID in the OBIDXLAT Alternate DB2 SSID field. If the source and target SSID are same then the field can be left SPACES.

3. Build the Job Profile The JCL member has two jobs. The first job is for OBIDXLAT and the second job is for the REBUILD INDEX with the target SSID and target DBNAME.TSNAME.

---

Mini Log Control Table maintenance

The Mini Log Control Table (MCT) is a repository of information about the mini logs that Db2 Change Accumulation Tool has created.

Each time Db2 Change Accumulation Tool creates a mini log, information about that mini log is stored in the MCT. The purpose of the MCT is to optimize the production of image copies through the use of mini logs thus reducing the need to use the DB2 log to produce a new image copy. For example, if mini logs exist for a table space, information in the MCT enables the use of those mini logs to create a new image copy and avoids reading the DB2 log to create the new image copy.

**Note:** Occasional runstats on the Mini Log Control Table and rebinds of the GGC packages and plan should be performed to ensure the optimizer chooses the best access path to the mini log control table data.

About Mini Log Control Table maintenance

Over time, the MCT may grow in size and require maintenance. The Mini Log Control Table Maintenance functionality enables users to selectively delete rows (based on the criteria such as database, table space, partition, date, and age).

This prevents the MCT from exceeding an acceptable size and avoids the risk of losing valuable mini log information.

**Note:** The Mini Log Control Table Maintenance function behaves similarly to the IBM MODIFY utility in that it requires the input of a date or age before which all rows are to be deleted. By optionally specifying a database, table space, and partition, users can narrow the criteria on which to base the MCT row deletions.

Maintaining the MCT

Each time Db2 Change Accumulation Tool creates a mini log, information about that mini log is stored in the MCT. The purpose of the MCT is to optimize the
production of image copies through the use of mini logs thus reducing the need to use the DB2 log to produce a new image copy.

**About this task**

To perform mini log control table maintenance:

**Procedure**

1. Select option 4, Perform Mini Log Control Table Cleanup, from the IBM DB2 Change Accumulation Tool main menu and press Enter. The Mini Log Control Table Cleanup panel displays as shown in the following figure:

   ![Figure 101. Mini Log Control Table Cleanup panel](image-url)

   Specifying the parameters for the mini log control table clean-up task:

   - **Database**: Specify a database for which you want to delete all associated Mini Log Control Table rows.
   - **Table/Index space name**: Specify a table space for which you want to delete all associated Mini Log Control Table rows.
   - **Partition**: Specify a partition for which you want to delete all associated Mini Log Control Table rows.
   - **Date**: Specify a date before which all Mini Log Control Table rows are to be deleted. To delete rows for all dates, specify * in the date field. You must specify either a date or an age (these fields are mutually exclusive).
   - **Age**: Specify an age (in days) before which all Mini Log Control Table rows are to be deleted. For example, if you specify an age of 30, all Mini Log Control Table rows that are greater than 30 days old will be deleted. You must specify either a date or an age (these fields are mutually exclusive).

2. Specify the criteria by which rows are to be deleted from the Mini Log Control Table. When specifying a database, table space, or partition, you must also specify either a date or an age on which to base the row deletion. You must specify either a date or an age (these fields are mutually exclusive).

3. Press Enter. The Progress panel displays:
The Progress panel shows the progress of gathering information about the rows and data sets to be deleted.

**Note:** The Progress panel clears automatically, as soon as progress reaches its completion. In some cases, this means that the Progress panel will only display very briefly.

After the Progress panel clears, the Confirm Action panel displays:

```
GGC$YSNO ------ Confirm Action ------
Delete rows and data sets.
Row count: 4
Data set count: 4
N (Yes/No)
```

**Figure 103. Confirm Action panel**

Confirm the deletion by typing **Y** in the field at the bottom of the panel and pressing Enter. The rows will be deleted from the Mini Log Control Table and the data sets will be deleted.

**What to do next**

If the Progress panel displays for an extended period of time while it collects rows and data sets, you may decide you want to cancel the action. To do so, press the ATTN key (while the Progress panel is displaying). The Confirm Action panel displays:

```
GGC$YSNO Confirm Action:
Cancel collecting rows and data sets.
Row count: 646284
Data set count: 513
N (Yes/No)
```

**Figure 104. Confirm Action panel**

You can cancel the deletion and cancel collecting rows and data sets by typing **Y** in the field at the bottom of the panel and pressing Enter. The rows are not deleted from the Mini Log Control Table and the data sets won’t be deleted.

**Primary commands**

Db2 Change Accumulation Tool supports a number of primary commands that enable you to find information, navigate panels, modify the display of data, and print information.

**FIND abc**

Finds a unique string within a panel of data where **abc** is the string for which you are searching. If the specified string is found, the cursor moves to the first position of the found string. If the specified string is not found a message displays to indicate that is the case. You should be as specific as possible when using the **FIND** command to ensure the correct return.
The **FIND** command can be issued with the following keywords:

- **NEXT**  Finds the next instance of the search string.
- **PREV**  Finds the previous instance of the search string.
- **FIRST** Finds the first instance of the search string.
- **LAST**  Finds the last instance of the search string.
- **ALL**   Finds all instances of the search string.

The syntax is:

```
FIND <string> <keyword>
```

**OR**

```
FIND <keyword> <string>
```

where `<string>` is the text you want to find and `<keyword>` is a valid keyword for the **FIND** command (NEXT, PREV, FIRST, LAST, or ALL).

If none of these keywords is explicitly specified, the default behavior is for the next instance of the search term to be found. If a keyword is the only parameter, it is treated as a search string. Two keyword parameters can coexist as long as one of them is identified by surrounding quotes as the search string. Otherwise, the occurrence of multiple instances of keywords causes an error.

**Examples:**

To find the first instance of the word "apple", issue the command:

```
FIND apple FIRST
```

To find the next instance of the word "apple":

```
FIND apple
```

To find the last instance of the word "apple":

```
FIND apple LAST
```

To find all instances of the word "apple":

```
FIND apple ALL
```

To find all instances of the word "all", use single quotes to distinguish the search term from the keyword:

```
FIND 'all' ALL
```

Or:

```
FIND ALL 'all'
```

**FORM**

Reformats the display of a selected line item on a report panel such that each column becomes a row and values display in list format. To use the **FORM** command, type **FORM** in the option line, place your cursor on the line item of interest, and press Enter. The data for the selected line item will be displayed in list format showing column names and their associated values.

**Notes:**

1. To return to the original view from **FORM** view, press PF3.
2. CSETUP functions are not accessible when in FORM view. Exit FORM view to access CSETUP functionality.

**NROW n**
Displays the report for a subsequent row of interest where \( n \) is the number of rows (after to the currently displayed row) that you want to scroll forward (when viewing reports in FORM view). The default value of \( n \) is 1.

**Note:** The **NROW** command is only valid when viewing a report in FORM view.

**PROW n**
Displays the report for a previous row of interest where \( n \) is the number of rows (prior to the currently displayed row) that you want to scroll back (when viewing reports in FORM view). The default value of \( n \) is 1.

**Note:** The **PROW** command is only valid when viewing a report in FORM view.

**PRINTX**
The **PRINTX** command takes a screen shot of a report and sends it to an output queue. The default output destination is the default output queue for your site. For example, if your site’s default output class is configured to send output to the hold queue, the **PRINTX** command sends the currently displayed report to the hold queue. You can then view the output using SDSF.

You can change the output class designation for the **PRINTX** command by entering **PRINTX S** in the command line and pressing Enter. The following panel is displayed:

*Figure 105. PRINTX Setup panel*

```
SETUP ------------------------ PRINTX Setup ------------------------ 2010/02/25 14:27:15
Command =>

Specify new output class and press ENTER
or
press END to cancel.

If new output class is blank, default output class is used.

Current Output Class => DEFAULT OUTPUT MESSAGE CLASS
New Output Class     => _
```

Enter the desired output class in the **New Output Class** field and press Enter. The new output class is saved across sessions and remains in effect unless you change it. For appropriate output classes available at your site, check with your systems programmer. To change the class back to the default output message class, blank out the value in the **New Output Class** field.

For a snapshot of the current display (print screen), the ISPF Print command can be used. The ISPF Print command writes output to the ISPF LIST data set. See the *ISPF User’s Guide* (SC34-4822, SC34-4823) for more information about ISPF Print.

**SORT column_number direction**
Sorts data (on panels of scrollable or tabular data) by column where 
\textit{column\_number} is the number of the column by which you want to sort 
and \textit{direction} can be either \textit{A} (to sort data in ascending order) or \textit{D} (to sort 
data in descending order).

You can refer to columns only by the column number (not the column 
name). Column numbers are not displayed on the panel. The CMD column 
is column 1 and columns to the right are incremented sequentially.

Data can be sorted in ascending (A) or descending (D) order. To specify 
sort order, append the \textit{A} or \textit{D} to the end of the \textsc{sort} command. The 
default is ascending (A). For example, to sort column 2 in descending 
order, type: 
\texttt{sort 2 d}

in the command line and press Enter. Data will be sorted by column 2 in 
descending order.

\begin{flushleft}
\textbf{Column display functions}
\end{flushleft}

Column display functions (\textsc{csetup} functions) enable you to rearrange report 
columns, change the width of individual columns, and control the vertical ordering 
of columns.

\textsc{csetup} functionality enables you to:
\begin{itemize}
  \item Rearrange report columns horizontally using the \texttt{cfix} and \texttt{corder} options.
  \item Change the width of individual columns using the \texttt{csize} option.
  \item Control the vertical ordering of columns using the \texttt{csort} option.
\end{itemize}

Additional column display functions enable you to:
\begin{itemize}
  \item Scroll horizontally between columns, in both left and right directions.
  \item Scroll horizontally within a single report column while other report columns 
remain stationary on the screen.
  \item Insert column numbers above each display column.
  \item Generate a ruler at the top of the report columns beneath the headings.
  \item Display an entire row-column data element.
\end{itemize}

The customizations, or views, you configure using \texttt{cfix}, \texttt{corder}, \texttt{csize}, and \texttt{csort} 
can be saved across sessions.

The following syntax restrictions apply to the use of \textsc{csetup} functionality:
\begin{itemize}
  \item Underlined text indicates the minimum acceptable abbreviation for each 
keyword.
  \item Variables are shown in italicized lowercase type.
  \item Keyword options are separated by vertical lines ( \texttt{|} ).
\end{itemize}

\begin{flushleft}
\textbf{Accessing the CSETUP Primary Option Menu}
\end{flushleft}

The \textsc{csetup} primary option menu enables you to access the various \textsc{csetup} options 
and configure column display functions according to your display needs.

\begin{flushleft}
\textbf{About this task}
\end{flushleft}

The \textsc{csetup} command uses the following syntax:
CSETUP
Launches the CSETUP Primary Option Menu.

To access and use the CSETUP Primary Option Menu:

**Procedure**
1. On any dynamic display (for example, the Objects Profile Display panel, the Utilities Profile Display panel, or the Jobs Profile Display panel), type **CSETUP** (or **CSET**) in the Option line and press Enter. The Setup Primary Option Menu displays as shown in the following figure:

   ![](figure106.png)

   **Figure 106. Setup Primary Option Menu panel**

   2. Type the number corresponding to the option you want to access in the Command line and press Enter. The following options are available on the Setup Primary Option Menu:

   - **CFIX** Option 1, **CFIX**, enables you to fix and unfix columns.
   - **CORDER** Option 2, **CORDER**, enables you to reposition columns.
   - **CSIZE** Option 3, **CSIZE**, enables you to change the displayed width of columns.
   - **CSORT** Option 4, **CSORT**, enables you to select one or more columns for sorting and thus modify the order of the rows displayed.
   - **CRESET** Option 5, **CRESET**, enables you to reset all customizations.
   - **CREMOVE** Option 6, **CREMOVE**, enables you to remove all customizations.
   - **PVIEW** Option 7, **PVIEW**, enables you to toggle between permanent view and temporary view.

   **Note:** You can also directly invoke each **CSETUP** option by typing the corresponding command (for example, **CFIX**, **CORDER**, **CSIZE**, **CSORT**, **CRESET**, **CREMOVE**, or **PVIEW**) in the option line on any dynamic display and pressing Enter.

   **Fixing a column**
   
The **CFIX** option enables you to fix and unfix columns. A fixed column is always located at the far left side of the display.
About this task

It does not shift horizontally (as unfixed columns do) when scrolling to the left or right. INNER COLUMN SCROLLING and CEXPAND may be used on a fixed column if the column is narrower than its maximum width. Certain columns may be permanently fixed in the report and cannot be unfixed by the user. Such a column has a fix status of P (permanently fixed).

A column cannot be fixed if it is larger than the available display area. There are also restrictions for fixing columns related to the size requirements of other columns.

To fix a column:

Procedure

1. Type **CFIX** in the option line on any display panel and press Enter. The Define Fixed Columns panel displays as shown in the following figure:

![Define Fixed Columns panel](image)

The following fields appear on the Define Fixed Columns panel:

**Column Function**

Enables you to jump to any of the CSET functions by typing in the appropriate number. The number corresponding to the current option displays in this field.

**Permanent View**

Indicates whether the view you define is permanent or temporary. Valid values are:

- Y–View customizations are permanent.
- N–View customizations are temporary.

**Reset View**

Resets all customizations.

**Device_Width**

Shows the current display device size (screen width).
Old_Fixed_Width
Shows the sum of the FIXED column widths prior to any changes in the current CFIX panel.

Old_Unfixed_Width
Shows the UNFIXED area prior to any changes in the current CFIX panel. Old_Unfixed_Width = Device_Width - Old_Fixed_Width.

New_Fixed_Width
Shows the sum of the FIXED column widths that will result if the FIX/UNFIX changes are saved.

New_Unfixed_Width
Shows the UNFIXED area that will result if the FIX/UNFIX changes are saved. New_Unfixed_Width = Device_Width - New_Fixed_Width.

Cmd
Field where you specify line commands. Valid line commands are F (fix) and U (unfix).

New
Displays the new CFIX view settings.

Old
Displays the previous CFIX view settings.

Len
Shows the length of the column.

Column_Name
Shows the name of the column.

2. Type F in the Cmd field next to column(s) you want to fix.
3. Type U in the Cmd field next to column(s) you want to unfix.
4. Press Enter. The changed values display in the New column next to the corresponding column(s).
5. Press PF3 to save changes and return to the display panel.

Repositioning columns
The CORDER option enables you to reposition report columns. If any columns are fixed, they are grouped together as the leftmost report columns. The unfixed columns are grouped together to the right of any fixed columns.

About this task

CORDER does not move a column out of its group. A fixed column cannot be relocated to the right of an unfixed column. Likewise, an unfixed column cannot be relocated to the left of a fixed column.

To reposition columns:

Procedure
1. Type CORDER in the option line on any display panel and press Enter. The Define Column Display Order panel displays as shown in the following figure:
The following fields appear on the Define Column Display Order panel:

**Column Function**
Enables you to jump to any of the CSET functions by typing in the appropriate number. The number corresponding to the current option displays in this field.

**Permanent View**
Indicates whether the view you define is permanent or temporary. Valid values are:
- Y–View customizations are permanent.
- N–View customizations are temporary.

**Reset View**
Resets all customizations.

**Cmd**
Field where you specify the number for column position.

**Fix**
Displays fixed columns. Valid values are:
- F–Indicates the column is fixed.
- P–Indicates the column is permanently fixed.

**New**
Displays the new CORDER view settings.

**Old**
Displays the previous CORDER view settings.

**Column_Name**
Shows the name of the column.

2. Type a number next to a column to specify its order.
3. Press Enter. The new column order numbers display in the **New** column next to each column.
4. Press PF3 to return to the display panel.

**Resizing columns**
The CSIZE option enables you to change the displayed width of columns.
About this task

This function is primarily intended for non-numeric data where there are large blank areas in all (or most) rows in a given column. Although the displayed width may change, the underlying data does not change.

If a column’s size is less than the column maximum, it is possible that some data is not displayed. INNER COLUMN SCROLLING and CEXPAND can be used to see data outside the display range of the resized column.

Note: If the minimum and maximum column widths are equal, the column cannot be resized.

To resize columns:

Procedure

1. Type CSIZE in the option line on any display panel and press Enter. The Define Column Size panel displays as shown in the following figure:

   ![Define Column Size panel](image)

   **Figure 109. Define Column Size panel**

   The following fields appear on the Define Column Size panel:

   **Column Function**
   Enables you to jump to any of the CSET functions by typing in the appropriate number. The number corresponding to the current option displays in this field.

   **Permanent View**
   Indicate whether the view you define is permanent or temporary. Valid values are:
   - Y—View customizations are permanent.
   - N—View customizations are temporary.

   **Reset View**
   Resets all customizations.

   **Device_Width**
   Shows the current display device size (screen width).
Old_Fixed_Width
Shows the sum of the FIXED column widths.

Old_Unfixed_Width
Shows the UNFIXED area.

New_Fixed_Width
Shows the sum of the FIXED column widths.

New_Unfixed_Width
Shows the UNFIXED area.

Cmd  Field where you specify the number for column position.

New  Displays the new CSIZE view settings.

Old  Displays the previous CSIZE view settings.

Min  Displays the minimum column length.

Note: If the minimum and maximum column widths are equal, the column cannot be resized.

Max  Displays the maximum column length.

Note: If the minimum and maximum column widths are equal, the column cannot be resized.

Fix  Displays fixed columns. Valid values are:
• F–Indicates the column is fixed.
• P–Indicates the column is permanently fixed.

Column_Name
Shows the name of the column.

2. Type the desired column size in the Cmd field next to the column you want to resize.

Note: The column size you specify must be between the Min and Max values shown for that column.


4. Press PF3 to return to the display panel.

Sort functionality
CSORT functionality enables you to select one or more columns for sorting and thus modify the order of the rows displayed on many product panels.

Columns are selected by sort priority and direction. Direction is either ascending (default) or descending. When more than one column is selected for sorting, the second column only differentiates when rows have matching data in the first column. Similarly, a third column only impacts the sort when data in both the first two columns are identical.

Defining sort columns
You can sort display data by columns. You can select up to nine columns for sorting.
About this task

A maximum of nine columns can be selected for sorting at one time. Internal requirements may create a smaller maximum. A message is issued if the maximum number of columns selected for sorting is exceeded.

Note: CSORT and SORT are synonymous.

Procedure

1. Type CSORT (or SORT) in the option line on any display panel and press Enter. The Define Sort Columns panel displays as shown in the following figure:

   ![Define Sort Columns panel](image)

   **Figure 110. Define Sort Columns panel**

   The following fields appear on the Define Sort Columns panel:

   **Column Function**
   Enables you to jump to any of the CSET functions by typing in the appropriate number. The number corresponding to the current option displays in this field.

   **Permanent View**
   Indicate whether the view you define is permanent or temporary. Valid values are:
   - **Y**–View customizations are permanent.
   - **N**–View customizations are temporary.

   **Stop Sorting**
   Indicates whether to stop sorting as specified. Valid values are:
   - **Y**–Stop sorting.
   - **N**–Continue sorting.

   **Cmd** Field where you specify the sort order.
   **Dir** Specifies the lexicographic order for the column. Valid values are:
   - **A**–(Default) Values are listed in ascending order, smallest to largest.
   - **D**–Values are listed in descending order, largest to smallest.

   **New** Displays the new CSORT view settings.
Old  Displays the previous CSORT view settings.

Column_Name  Shows the name of the column.

2. Type A or D in the Cmd field next to the columns on which you want to base your sort.
3. Press Enter. The new sort preferences are displayed in the New column.
4. Press PF3 to return to the display panel.

Fast-path SORT command
The SORT command can be used as a primary (fast-path) command by typing the appropriate SORT syntax in the Option line of any report panel and pressing Enter.

The functionality supports both single and multi-column sorting and enables users to specify sort order (ascending or descending) for each column in the sort.

Syntax for single-column sorting
The syntax for single-column sorting is as follows:

SORT column_identifier dir

Where column_identifier is either the column name or the relative column number and dir is the direction in which to sort the column data. Valid values for dir are:

- asc  (Default) Sorts data in ascending order.
- desc  Sorts data in descending order.

Notes:
1. There must be a space between the column_identifier and its dir (if used).
2. The relative column number for a column is determined based on the column's placement when visible on the screen. Thus, relative column numbers are only available for columns currently visible on the screen. Relative column numbers are determined by counting the displayed columns from left to right, with the leftmost visible column being assigned the number '1' and each successive column (reading left to right) being assigned a relative column number that is incremented by 1. Hint: To quickly determine the column number, use the CNUM command to toggle on the column numbers for each display column.
3. You can sort on a column that is not displayed if you use the column name (instead of the relative column number) as the column_identifier in the SORT syntax.

Multi-column sorting
The syntax for multi-column sorting is as follows:

SORT column_identifier dir column_identifier dir

Where column_identifier is either the column name or the relative column number and dir is an optional indication of the direction in which to sort the column data. Valid values for dir are:

- asc  (Default) Sorts data in ascending order.
- desc  Sorts data in descending order.
The column_identifier and dir values must all be separated by spaces. The maximum number of columns that can be sorted at once is 9.

Usage examples

For a report display that has three columns, all of which display on the screen:

Column 1: Name

Column 2 Creator

Column 3: Status

The following examples show how you can sort these columns:

SORT NAME
   Sorts display data in ascending order based on the value in the Name column (when no dir value is specified, the default sort order is ascending, thus SORT NAME and SORT NAME A are synonymous).

SORT NAME D
   Sorts display data in descending order based on the value in the Name column.

SORT NAME DESC
   Sorts display data in descending order based on the value in the Name column.

SORT NAME A CREATOR D
   Sorts display data first in ascending order based on the value in the Name column and then sorts data in descending order based on the value in the Creator column.

SORT NAME ASC CREATOR DESC
   Sorts display data first in ascending order based on the value in the Name column and then sorts data in descending order based on the value in the Creator column.

SORT 1 A
   Sorts display data in ascending order based on the value in the Name column.

SORT 1 A CREATOR D
   Sorts display data first in ascending order based on the value in the Name column and then sorts data in descending order based on the value in the Creator column.

SORT 3 2 1
   Sorts the display data first in ascending order based on the value in the Status column, then in ascending order based on the value in the Creator column, and finally in ascending order based on the value in the Name column.

Note: When you specify a column name using any of the above formats, you may enclose it in single quotes, double quotes, or be without any quotes. For example, the following are equivalent:

SORT NAME D

SORT 'NAME' D
Reseting CSET customizations

The **CRESET** option enables you to reset all customizations.

**About this task**

After **CRESET** is issued, all fixed columns are unfixed (except for any permanently fixed columns), all selected sort columns are deselected and sorting is disabled, all column sizes are set to the initial values or maximum values if no suggested value previously existed, and original column locations are restored.

**Procedure**

1. To issue the **CRESET** option, access the Setup Primary Option Menu by typing **CSET** in the option line of any report display and pressing Enter. The Setup Primary Option Menu displays.
2. Type 5 in the command line and press Enter. **CRESET** is issued and all fixed columns are unfixed (except for any permanently fixed columns), all selected sort columns are deselected and sorting is disabled, all column sizes are set to the initial values or maximum values if no suggested value previously existed, and original column locations are restored.
3. Alternatively, you can issue the **CRESET** command as a primary command using the following syntax:

   ```plaintext
   CRESET
   ```
   
   Resets all customizations (unfixes fixed columns, deselects selected sort columns, sorting disabled, column sizes set to initial values, original column locations restored).

   **Note:** **CRESET** differs from **CREMOVE** in that **CREMOVE** sets all column sizes to their maximum values ignoring any initial, suggested sizes.

Removing CSET customizations

The **CREMOVE** option enables you to remove all customizations.

**About this task**

After you issue the **CREMOVE** command, all fixed columns are unfixed (except for those that are permanently fixed), all selected sort columns are deselected and sorting is disabled, all column sizes are set to their maximum values, and original column locations are restored.

**Procedure**

1. To issue the **CREMOVE** option, access the Setup Primary Option Menu by typing **CSET** in the option line of any report display and pressing Enter. The Setup Primary Option Menu displays.
2. Type 6 in the Command line and press Enter. The **CREMOVE** command is issued.
3. Alternatively, you can issue the **CREMOVE** command as a primary command using the following syntax:

   ```plaintext
   CREMOVE
   ```
   
   Removes all customizations (unfixes fixed columns, deselects selected sort columns, sorting disabled, column sizes set to maximum values, original column locations restored).
Note: CREMOVE differs from CRESET in that CREMOVE sets all column sizes to their maximum values ignoring any initial, suggested sizes.

Column scroll
Column scrolling enables you to scroll horizontally between columns, in both left and right directions.

Use the following commands when viewing any dynamic display panel to scroll horizontally between columns:

**CRIGHT** \( n \)
- Enables you to scroll the left side of the display window \( n \) report columns to the right.

**CLEFT** \( n \)
- Enables you to scroll the left side of the display window \( n \) report columns to the left.

Inner column scroll
Inner column scroll enables you to scroll horizontally within a single report column while other report columns remain stationary on the screen.

Inner column scrolling may be useful for columns that have been shortened using the CSIZE functionality. Use the following commands when viewing any dynamic display panel to scroll horizontally within a single report column:

**ICRIGHT**
- Enables you to scroll to the right within one report column while the other report columns remain stationary.

**ICLEFT**
- Enables you to scroll to the left within one report column while the other report columns remain stationary.

Column numbers
Column numbers can be inserted above each display column.

The inserted column numbers are relative to the leftmost display column. Use the following command to invoke column numbering:

**CNUM**
- Enables you to toggle on/off the column numbers above each display column.

Notes:
1. The leftmost displayed column is always numbered one (1) regardless of how far to the right you scroll.
2. You can use column numbers when issuing the **SORT** fast-path command.
3. Column numbers are not removed by **CRESET** nor **CREMOVE**. To remove column numbers, reissue the **CNUM** command.

Ruler display
The **COLS** command enables you to generate a ruler at the top of the report columns beneath the headings.
This ruler tracks the current position within the column. The < > symbols indicate whether there is additional column data to the left or right of the displayed data. For example:

<---5----2----5-->

In this example, positions 13 through 28 are displayed. There is data both to the left and right of the currently displayed area.

The COLS command can be issued by itself, as a toggle switch, or with one parameter (ON OFF). The syntax is as follows:

COLS (ON | OFF)

Enables you to generate a ruler at the top of the report columns to track the current position within the column.

Expanding columns

The CEXPAND command enables you to display an entire row-column data element.

About this task

This command can be useful in instances when the CSIZE command has reduced a column to a width that is too narrow to display all data. Expanding columns using the CEXPAND command provides you with an alternative to inner column scrolling.

Procedure

To invoke CEXPAND, place the cursor on a row-column element and issue the CEXPAND command. The cursor position determines the row-column that expands. The CEXPAND command can be issued by itself or with two parameters (row and column). The syntax is as follows:

CEXPAND (row column)

Enables you to display an entire row-column data element where row is the number of the row and column is the number of the column (non-heading lines only) that you want to expand.

Restrictions

The following restrictions apply to CSET options.

- Total fixed column sizes cannot exceed screen width.
- Total fixed column sizes must leave enough unfixed space for the minimum allowed size for all unfixed columns. If a column is not eligible to be re-sized, the column's minimum size requirement is the same as its maximum size. Minimum and maximum sizes for all columns are shown in the CSIZE display.
- If a column has been re-sized, then its current width is treated as its smallest allowable size. When a column is re-sized its current size must fit on the screen completely. For example, on an 80-byte screen with no fixed columns, a 128-byte column can only be re-sized to 80 bytes or less (assuming no conflicting minimum size associated with the column). If there were two 10-byte fixed columns, for a total fixed area size of 20-bytes, the 128-byte column would be limited to 60 bytes or its minimum allowed size, whichever was smaller.

Tools Customizer reference

Before you use Tools Customizer, you should understand the Tools Customizer terminology and the data sets that Tools Customizer uses during customization.
Tools Customizer terminology

Tools Customizer uses several unique terms that you should be familiar with before you begin to use Tools Customizer.

Products and components

How an IBM Tool is packaged determines whether it is referred to as a product or as a component in the Tools Customizer documentation and interface. An IBM Tool that is ordered as a stand-alone entity (that is, not as part of a solution pack) is referred to as a product. An IBM Tool that is part of a solution pack is referred to as a component. Some IBM Tools are available in both formats; therefore, the same IBM Tool can be referred to as a product or as a component depending on how it is packaged.

Db2 entry

You can customize Db2 Change Accumulation Tool on one or more Db2 entries. A Db2 entry can be any of the following items:

Db2 subsystem

A distinct instance of a relational database management system (RDBMS) that is not part of a data sharing group. An example of a Db2 subsystem name is DB01.

Db2 group attach name

Db2 Change Accumulation Tool does not support Db2 group attach names.

Db2 data sharing member

A Db2 subsystem that is assigned by the cross-system coupling facility (XCF) to a data sharing group. An example of a Db2 data sharing member name is DB02.

Tools Customizer maintains the following lists of Db2 entries:

Associated list

The list of Db2 entries that are associated with Db2 Change Accumulation Tool. If the product to be customized requires Db2 entries, you can customize Db2 Change Accumulation Tool only on Db2 entries that are in the associated list. When you customize Db2 Change Accumulation Tool, this list is displayed in the DB2 Entries, Associations, and Parameter Status section of the Customizer Workplace panel.

You can add and copy Db2 entries to the associated list. When you add or copy Db2 entries to the associated list, the entries are associated with Db2 Change Accumulation Tool.

Master list

The list of all Db2 entries that are defined but are not associated with Db2 Change Accumulation Tool. Tools Customizer obtains information about these Db2 entries either from entries that were created manually or from the customizations of other products that were discovered. If you remove a Db2 entry from the associated list, the Db2 entry is added to the master list. When you create a new Db2 entry, it is added to the master list, and when you associate the new entry with Db2 Change Accumulation Tool, it is removed from the master list and added to the associated list. The master list is displayed on the Associate a DB2 Entry for Product panel.
If the associated list does not have the Db2 entries on which you want to customize Db2 Change Accumulation Tool, you can associate existing entries from the master list to the associated list.

You can create new Db2 entries and copy existing entries to the master list.

**High-level qualifier**

The high-level qualifier is considered to be all of the qualifiers except the lowest level qualifier. A high-level qualifier includes a mid-level qualifier.

**Product parameters**

Parameters that are specific to Db2 Change Accumulation Tool. These parameters are defined by Db2 Change Accumulation Tool and are stored in a data member that is defined by Db2 Change Accumulation Tool.

**Db2 parameters**

Parameters for a Db2 entry. These parameters are defined by Tools Customizer and are stored in a Db2 parameter data member.

**Status type**

**Product, LPAR, and Db2 entry status type**

After you specify the product that you want to customize, the product, the LPAR, and the Db2 entries have a status. The status is partly based on whether required parameters are defined. For some products, LPAR parameters or Db2 parameters might not be required. In these cases, the status is Not Required.

To customize Db2 Change Accumulation Tool, all of the required parameters must be defined.

If required parameters for the the product parameters or Db2 parameters are not defined, the status of the parameters is Incomplete. Define values for parameters by manually editing them or by generating the customization jobs and specifying values for all of the required parameters that are displayed on the panels.

When values for all of the required parameters are defined, the status is Ready to Customize. Customization jobs can be generated only when all of the required parameters are defined and the status is Ready to Customize or Customized for the product parameters and Db2 parameters for the Db2 entries on which Db2 Change Accumulation Tool will be customized.

The following table shows the meaning of the status types. Each status is defined differently for each type of parameter.

<table>
<thead>
<tr>
<th>Status</th>
<th>Product</th>
<th>LPAR</th>
<th>Db2 entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomplete</td>
<td>The required product parameters are not defined.</td>
<td>The required parameters are not defined.</td>
<td>The required parameters are not defined.</td>
</tr>
<tr>
<td>Discovered</td>
<td>The product parameter definitions were discovered by using the product Discover EXEC.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Table 8. Status types for the product, the LPAR, and the Db2 entries (continued)

<table>
<thead>
<tr>
<th>Status</th>
<th>Product</th>
<th>LPAR</th>
<th>Db2 entries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ready to Customize</td>
<td>The required product, is Ready to Customize or Customized for the LPAR and at least one associated Db2 entry. You can generate the customization jobs.</td>
<td>The required LPAR parameters are defined or LPAR parameters are not required.</td>
<td>The required Db2 parameters are defined or Db2 parameters are not required.</td>
</tr>
<tr>
<td>Verify Values</td>
<td>The required product or component parameter values are defined but they either have not been verified or verification is not enabled on the Product or Component Parameters panel.</td>
<td>The required LPAR parameter values are defined, but they either have not been verified or verification is not enabled on the LPAR Parameters panel.</td>
<td>The required Db2 parameter values are defined, but they either have not been verified or verification is not enabled on the Db2 Parameters panel.</td>
</tr>
<tr>
<td>Customized</td>
<td>The jobs are customized on the local LPAR.</td>
<td>The jobs are customized for the product or for all of the associated Db2 entries on the local LPAR.</td>
<td>The jobs are customized for the Db2 entry.</td>
</tr>
<tr>
<td>Errors in Customization</td>
<td>N/A</td>
<td>N/A</td>
<td>Errors occurred while the customization jobs were being generated.</td>
</tr>
<tr>
<td>Not Required</td>
<td>N/A</td>
<td>LPAR parameters are not required.</td>
<td>Db2 parameters are not required.</td>
</tr>
</tbody>
</table>

Related tasks:

“Creating and associating Db2 entries” on page 70
You can create new Db2 entries and associate them with Db2 Change Accumulation Tool.

“Copying Db2 entries” on page 80
You can copy associated and not associated Db2 entries to other Db2 entries or to new Db2 entries.

“Removing Db2 entries” on page 81
You can remove Db2 entries from the associated list.

Data sets that Tools Customizer uses during customization

Tools Customizer uses several unique data sets during the customization process. Familiarize yourself with these data sets before you begin to use Tools Customizer.

Several different data sets are required to customize Db2 Change Accumulation Tool with Tools Customizer. These data sets are supplied by Db2 Change Accumulation Tool, supplied by Tools Customizer, or allocated by Tools Customizer.

Db2 Change Accumulation Tool provides the following data sets:
**Metadata library**
Contains the metadata for the product to be customized. Tools Customizer uses the metadata to determine which tasks, steps, and parameters to display on the Product Parameters panel, the LPAR Parameters panel, and the DB2 Parameters panel. This data set also contains the templates that Tools Customizer uses to generate the customization jobs.

The metadata library naming convention is high_level_qualifier.SGGCDENU, where high_level_qualifier is all of the segments of the data set name except the lowest-level qualifier.

You specify the metadata library on the Specify the Metadata Library panel. READ access to this data set is required.

**Discover EXEC library**
Contains the Db2 Change Accumulation Tool Discover EXEC. When you customize Db2 Change Accumulation Tool, you can use the Discover EXEC to automatically retrieve and store product information, such as parameter values from an already customized product. Tools Customizer saves the discovered information in the data store.

The default name of the data set is the high-level qualifier for the metadata library plus a lowest-level qualifier. For Db2 Change Accumulation Tool, the lowest-level qualifier is SGGCDENU. You can change the default value on the Discover Customized Product Information panel. EXECUTE access to this data set is required.

Tools Customizer provides the following data sets:

**Tools Customizer metadata library**
Contains the metadata for the Db2 and LPAR parameters that are required to customize Db2 Change Accumulation Tool. Tools Customizer uses the metadata to determine which parameters to display on the DB2 Parameters panel and the LPAR Parameters panel. In addition, Tools Customizer uses information in the metadata library to determine whether additional Db2 and LPAR parameters need to be displayed on these panels. As you customize different products, different Db2 and LPAR parameters might need to be defined.

The default name of the data set is DB2TOOL.CCQ110.SCCQDENU. You can change the default value on the Tools Customizer Settings panel. READ access to this data set is required.

**Tools Customizer table library**
Stores information about jobs that are customized. Job information that is stored includes a description of the job, its member name and template name, the SSID, and when the job was generated.

The default name of the data set is DB2TOOL.CCQ110.SCCQTENU. WRITE access to this data set is required.

Tools Customizer requires that the following data sets exist during the customization process. If the data sets do not exist, Tools Customizer automatically allocates them.

**Discover output data set**
Contains the output that is generated when you run the Db2 Change Accumulation Tool Discover EXEC. The Db2 Change Accumulation Tool Discover EXEC retrieves the metadata and values for the parameters from a previous customization of Db2 Change Accumulation Tool.
The default name of the data set is DB2TOOL.CCQ110.DISCOVER. You can change the default value on the Tools Customizer Settings panel or the Discover Customized Product Information panel. WRITE access to this data set is required.

**Data store data set**
Contains product, LPAR, and Db2 parameter values, and Db2 entry associations. Tools Customizer uses this data set to permanently store all information that is acquired about the product, Db2 subsystems, and LPAR when you customize products on the local LPAR.

The default name of the data set is DB2TOOL.CCQ110.DA\*TOR. You can change the default value on the Tools Customizer Settings panel. WRITE access to this data set is required.

**Customization library**
Contains the customization jobs that Tools Customizer generates for Db2 Change Accumulation Tool.

Tools Customizer checks whether a customization library name was specified for more than one instance of the same version of the same product. If the same customization library name is specified for more than one product of the same version, the CCQD123E message is issued to prevent you from overwriting previously generated customization jobs. Ensure that you specify unique qualifier for the customization library for each instance of the product.

To customize Db2 Change Accumulation Tool, submit the members of the data set in the order in which they are displayed on the Finish Product Customization panel.

The data set naming convention is *hlq.*$LPAR_name$.*xyzvrm*, where:
- *hlq* is the value of the **Customization library qualifier** field on the Tools Customizer Settings panel (CCQPSET)
- *LPAR_name* is the four-character LPAR name
- *xyzvrm* is the three-letter product identifier with the version, release, and modification level

For example, the data set name might be DB2TOOL.PRODUCT.CUST.$MVS1$.XYZ410.

WRITE access to this data set is required.

Tools Customizer allocates the data sets for the discover output, the data store, and the customization library with the attributes that are shown in the following table:

<table>
<thead>
<tr>
<th>Data set</th>
<th>Organization</th>
<th>Record format</th>
<th>Record length</th>
<th>Block size</th>
<th>Data set name type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discover output data set</td>
<td>PO</td>
<td>Variable block</td>
<td>16383</td>
<td>32760</td>
<td>LIBRARY</td>
</tr>
<tr>
<td>Data store data set</td>
<td>PO</td>
<td>Variable block</td>
<td>16383</td>
<td>32760</td>
<td>LIBRARY</td>
</tr>
<tr>
<td>Product customization library</td>
<td>PO</td>
<td>Fixed block</td>
<td>80</td>
<td>32720</td>
<td>LIBRARY</td>
</tr>
</tbody>
</table>
Restrictions:

- Multiple users cannot simultaneously share the discover output data set, data store data set, Tools Customizer metadata library, and metadata library.
Notices

This information was developed for products and services offered in the U.S.A.

This material may be available from IBM in other languages. However, you may be required to own a copy of the product or product version in that language in order to access it.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user’s responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  IBM Corporation  North Castle Drive, MD-NC119  Armonk, NY

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing Legal and Intellectual Property Law IBM Japan Ltd. 19-21, Nihonbashi-Hakozakicho, Chuo-ku Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.
Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
J64A/G4
555 Bailey Avenue
San Jose, CA 95141-1003
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM’s future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample
programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work, must include a copyright notice as follows:

© (your company name) (year). Portions of this code are derived from IBM Corp. Sample Programs. © Copyright IBM Corp. _enter the year or years_. All rights reserved.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

**Programming interface information**

This publication documents intended Programming Interfaces that allow the customer to write programs to obtain the services of Db2 Change Accumulation Tool.

This publication documents information that is NOT intended to be used as Programming Interfaces of Db2 Change Accumulation Tool.

This publication primarily documents intended Programming Interfaces that allow the customer to write programs to obtain the services of Db2 Change Accumulation Tool.

This publication also documents information that is NOT intended to be used as Programming Interfaces of Db2 Change Accumulation Tool. This information is identified where it occurs by an introductory statement to a topic or section.

This publication primarily documents information that is NOT intended to be used as Programming Interfaces of Db2 Change Accumulation Tool.

This publication also documents intended Programming Interfaces that allow the customer to write programs to obtain the services of Db2 Change Accumulation Tool. This information is identified where it occurs by an introductory statement to a topic or section.

**Trademarks**

IBM, the IBM logo, and ibm.com® are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the web at "Copyright and trademark information" at [http://www.ibm.com/legal/copytrade.html](http://www.ibm.com/legal/copytrade.html).

Adobe, the Adobe logo, PostScript, and the PostScript logo are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States, and/or other countries.

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Xeon, Intel SpeedStep, Itanium, and Pentium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.
Java™ and all Java-based trademarks and logos are trademarks or registered trademarks of Oracle and/or its affiliates.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product, and service names may be trademarks or service marks of others.

**Privacy policy considerations**

IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user or for other purposes. In many cases no personally identifiable information is collected by the Software Offerings. Some of our Software Offerings can help enable you to collect personally identifiable information. If this Software Offering uses cookies to collect personally identifiable information, specific information about this offering’s use of cookies is set forth below.

This Software Offering does not use cookies or other technologies to collect personally identifiable information.

If the configurations deployed for this Software Offering provide you as customer the ability to collect personally identifiable information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for notice and consent.

Index

A
accessibility overview 21
APF authorization 34
architecture 18

C
change accumulation process flow overview 18
changing display options 60
coeexistence 28, 31
column display functions about 541
CEXPAND 553
CFIX 543
CLEFT 552
CNUM 552
COLS 553
CORDER 544
CREMOVE 551
CRESET 551
CRIGHT 552
CSIZE 546
CSORT 547, 548
 fastpath SORT 549
ICLEFT 552
ICRIGHT 552
restrictions 553
cookie policy 561, 564
Copy DB2 Entries panel 80
CSETUP 541
customization 23, 25
 associated list
 adding Db2 entries 70
 overview 554
 associating Db2 entries 70
 browsing parameters 79
 changing display options 60
 changing parameters 63
 component 554
 copying Db2 entries 80
 Create a DB2 Entry panel 70
 creating Db2 entries 70
customization jobs
deleting 83
 displaying 82
 generating 76
 maintaining 83
 regenerating 76
 renaming 83
 sort sequence 77
 submitting 77, 82
 customization library
deleting jobs 83
 maintaining 83
 overview 556
 recustomizing 83
 renaming jobs 83
customization (continued)
customization library qualifier
 specifying 57
Customized status 554
Customizer Workplace panel 76
customizing a new version of a product 63
customizing a product for the first time 63
customizing settings 57
data sets
customization library 556
data store 52, 556
 DATASTOR 52
 Discover EXEC library 556
 metadata library 52, 556
data store
 overview 556
data store data set
 specifying 57
Db2 data sharing members
 adding 70
 associating 70
 copying 80
 creating 70
 Db2 entries 554
 adding 70
 associating 70
 copying 80
 creating 70
 defining 76
 deleting 81, 82
 generating jobs for 76
 removing 81
 selecting 76
 specifying 76
 unassociating 81, 82
 Db2 group attach field
 specifying 57
 Db2 group attach names
 adding 70
 associating 70
 copying 80
 creating 70
 Db2 parameters
 defining 74
 editing 74
 DB2 Parameters panel 74
 Db2 subsystems
 adding 70
 associating 70
 copying 80
 creating 70
 defining Db2 parameters 74
 defining parameters 72, 76
 defining product parameters 72
deleting Db2 entries 82
deleting jobs 65
 Discover Customized Product Information panel 68
customization (continued)
 Discover EXEC
 customizing a new version of a product 63, 64
 overview 556
 retrieving product information automatically 68
 Discovered status 554
 discovering previous versions 64
 discovering product information 68
 display options 60
 displaying jobs 82
 displaying panel text 60
 editing parameters 63
 editing product parameters 72
 Errors in Customization status 554
 finding trace data set 470
 Finish Product Customization panel 77
 first-time 63
 first-time customization 63
 generating jobs 76
 hiding panel text 60
 high-level qualifier 554
 Incomplete status 554
 job sort order 77
 jobs
deleting 83
 displaying 82
 maintaining 83
 renaming 83
 sort order 77
 submitting 77, 82
 jobs generated 475
 LPARs 83
 maintaining jobs 83
 master list
 adding Db2 entries 70
 Associate DB2 Entry for Product panel 70
 overview 554
 maximizing information panels 60
 metadata libraries
 specifying 67
 metadata library
 maintenance, best practices 52
 overview 556
 specifying 57
 modifying parameters 63
 modifying settings 57
 multiple instances 57
 multiple-LSAR environment 83
 Not Required status 554
 options 60
 panel display options 60
 panels
 Associate DB2 Entry for Product 70
 Create a DB2 Entry 70
 Customizer Workplace 76
 DB2 Parameters 74
customization (continued)  
panels (continued)  
  Discover Customized Product Information 68  
  Finish Product Customization 77  
  Product Parameters 72  
  Specify the Metadata Library 67  
parameter values 35  
parameters  
  browsing 79  
  defining 72, 76  
  viewing 79  
preparing to use Tools  
  Customizer 57  
product 554  
product parameters  
  changing 65  
  defining 72  
  editing 65, 72  
  modifying 65  
Product Parameters panel 72  
  Ready to Customize status 554  
  recustomization 63, 65  
  recustomizing 65  
  recustomizing a product 63  
reference 475  
removing Db2 entries 81  
roadmaps 63  
  customizing for the first time 63  
  first-time customization 63  
  recustomization 65  
Specify the Metadata Library panel 67  
specifying data sets 57  
specifying metadata libraries 67  
starting Tools Customizer 56  
status types  
  Customized 554  
  Discovered 554  
  Errors in Customization 554  
  Incomplete 554  
  Not Required 554  
  Ready to Customize 554  
submitting jobs 77  
terminology 554  
trace data set 470  
troubleshooting 470  
  finding trace data set 470  
user job card settings  
  specifying 57  
  viewing parameters 79  
customization library  
  overview 556  
customization library qualifier  
  specifying 57  
customizing settings 57  

Db2 group attach field  
  specifying 57  
Db2 shared profile support 91  
Db2 subsystem parameters 88  
DEFINE CLUSTER 7  
diagnostic information  
  gathering 468, 470  
Discover EXEC  
  overview 556  
disk failure  
  recovering 221  
display options 60  
displaying panel text 60  
documentation  
  accessing 19  
  sending feedback 19  
documentation changes 1, 2, 471  
dynamic allocation 8  
job profiles (continued)  
  viewing 185  

L  
legal notices  
  cookie policy 561, 564  
  notices 561  
  programming interface  
    information 561, 563  
  trademarks 561, 563  
load libraries  
  APF authorizing 34  
LOBs 9  
log tape devices 8  

M  
main menu 85  
maximizing information on panels 60  
MEMLIMIT 469  
messages 223  
metadata library  
  maintenance, best practices 52  
  overview 556  
  specifying 57  
migration 31  
mini log control table 536, 537  
mini log mode 152  
mini logs 4, 9  
data set considerations 220  
  modifying settings 57  

N  
  notices 561, 563  
NROW 538  

O  
OBIDXLAT 127, 131, 134, 135, 167, 498, 
503, 506, 512, 534  
OBIDXLAT with REBUILD INDEXES 504  
object processing 7  
object profiles  
  adding indexes 108, 109  
  adding table spaces 97, 98, 100, 102, 
  104  
  advanced SQL 98, 102  
  columns 111  
  creating 95  
  deleting 116  
  exporting 118  
  importing 119  
  overview 95  
  processing clone tables 107  
  processing cloned indexes 110  
  processing dependent indexes 105  
  processing referentially dependent 
    table spaces 106  
  renaming 117  
  updating 114  
  viewing 116  
  viewing job profiles 124
object profiles (continued)
  wildcards 100, 102
online compression dictionary 469
online rebuild index 165
options 60

P
panel display options 60
panels
  Copy DB2 Entries 80
parameters
  customization 35
partitioned table space change accumulation 481
preparing to use Tools Customizer 57
prerequisites 26
primary commands 538
PRINTX 538
problems
  diagnostic information about 468, 470
product description 1
product overview 85
programming interface information 561, 563
PROW 538

Q
qualifier codes 154
quick build 119

R
RBA determination 7
reader comment form 19
rebuild index 499
recovery 7
  sample scenario 482
  scenarios
  recovery 28
  recovery procedures overview 221
reference
  sample scenarios 478
  sample SYSOUT report 514
requirements 26
  APF authorization 28
  DB2 authorization 26
  mainframe 26
  operating system 26
  RACF authorization 26
  USS authorization 26
roadmaps
  customizing for the first time 63
  first-time customization 63

S
sample JCL 189
sample scenarios 478
  GROUP level mini log 486
  multiple object change accumulation 479
sample scenarios (continued)
  OBIDXLAT 503
  OBIDXLAT with REBUILD INDEXES 504
  partitioned table space change accumulation 481
  rebuild index 499
  single object change accumulation 478
  write to BOTH 488
  write to VSAM 483
  write to VSAM indexes 501
  write to VSAM OBIDXLAT 497
  write to VSAM table space 503
  sample scenarios image copy 484, 485
  sample scenarios image copy OBIDXLAT 489
  sample scenarios space level mini log 487
  sample scenarios write to VSAM OBIDXLAT 493
  sample SYSOUT report 514
  scenarios
  recovery 28
  screen readers and magnifiers 21
  service information 19
  SHRLEVEL REFERENCE 6
  single object change accumulation 478
  SORT 538
  sorting data 61
  specifying data sets 57
  subsystem termination
    recovering 222
  summary of changes 1, 2, 471
  support
    required information 468, 470
    support information 19
  syntax 189
    diagram 214
    overview 189, 190
    sample JCL 189
  syntax diagrams
    how to read 473
T
target OBID 8
 technotes 19
terminology 4
 Tools Customizer
  associated list
    adding DB2 entries 70
    overview 554
  associating DB2 entries 70
  browsing parameters 79
  changing display options 60
  component 554
  Copy DB2 Entries panel 80
  copying DB2 entries 80
  Create a DB2 Entry panel 70
  creating DB2 entries 70
  customization jobs
    deleting 83
    displaying 82
    generating 76
    maintaining 83
  Tools Customizer (continued)
  customizing jobs (continued)
    renaming 83
    sort sequence 77
    submitting 77, 82
  customizing library
    deleting jobs 83
    maintaining 83
    recustomizing 83
    renaming jobs 83
  customizing library qualifier
    specifying 57
  Customized status 554
  Customizer Workplace panel 76
  customizing a new version of a product 63, 64
  customizing a product for the first time 63
  data sets
    customization library 556
    data store 52, 556
    DATABASE 52
    Discover EXC library 556
    metadata library 52, 556
  data store data set
    specifying 57
  DB2 data sharing members
    adding 70
    associating 70
    copying 80
    creating 70
  DB2 entries 554
    adding 70
    associating 70
    copying 80
    creating 70
    defining 76
    deleting 81
    generating jobs for 76
    removing 81
    selecting 76
    specifying 76
    unassociating 81
  DB2 entries 554
  DB2 group attach field
    specifying 57
  DB2 group attach names
    adding 70
    associating 70
    copying 80
    creating 70
  DB2 parameters
    defining 74
    editing 74
  DB2 Parameters panel 74
  DB2 subsys
    adding 70
    associating 70
    copying 80
    creating 70
  DB2 entries
    deleting 82
    unassociating 82
    defining DB2 parameters 74
    defining parameters 72, 76
    defining product parameters 72
    deleting DB2 entries 82
  Index 567
Tools Customizer (continued)
deleting jobs 65
Discover Customized Product Information panel 68
Discover EXEC
customizing a new version of a product 63, 64
retrieving product information automatically 68
Discovered status 554
discovering product information 68
displaying jobs 82
displaying panel text 60
editing product parameters 72
Errors in Customization status 554
features 51
finding trace data set 470
Finish Product Customization panel 77
first-time customization 63
generating jobs 76
hiding panel text 60
high-level qualifier 554
Incomplete status 554
job sort order 77
jobs
deleting 83
displaying 82
maintaining 83
renaming 83
submitting 82
maintaining jobs 83
master list
adding Db2 entries 70
Associate DB2 Entry for Product panel 70
overview 554
maximizing information on panels 60
metadata libraries 67
specifying 67
metadata library
specifying 57
multiple instances 57
multiple-LPAR environment 83
Not Required status 554
overview 51
panels
Associate DB2 Entry for Product 70
Copy DB2 Entries 80
Create a DB2 Entry 70
Customizer Workplace 76
DB2 Parameters 74
Discover Customized Product Information 68
Finish Product Customization 77
Product Parameters 72
Specify the Metadata Library 67
parameters
browsing 79
viewing 79
preparing to use 57
product 554
product parameters
changing 65
editing 65
Tools Customizer (continued)
product parameters (continued)
modifying 65
Product Parameters panel 72
Ready to Customize status 554
recustomization 63
recustomizing a product 63, 65
removing Db2 entries 81
roadmaps
customizing a new version of a product 64
recustomizing a product 65
using the Discover EXEC 64
Specify the Metadata Library panel 67
specifying metadata libraries 67
starting 56
status types
Customized 554
Discovered 554
Errors in Customization 554
Incomplete 554
Not Required 554
Ready to Customize 554
submitting jobs 77
terminology 554
trace data set 470
troubleshooting 470
user job card settings
specifying 57
using the Discover EXEC 64
viewing parameters 79
trace data set
finding 470
trademarks 561, 563
troubleshooting 221

U
upgrading 31
usage considerations 28, 477
usage scenarios 477
user job card settings
specifying 57
user settings 86
utility profiles 168
columns 140
creating 137, 173
deleting 171
exporting 171
generating DSN for 153
importing 172
overview 137
viewing 170
write to BOTH 161
write to VSAM 161

W
what’s new 1, 2, 471
write to BOTH 488
write to VSAM 5, 483
write to VSAM indexes 501
write to VSAM OBIDXLAT 497
write to VSAM table space 503