Abstract

Updates that apply to DB2 Automation Tool for z/OS Version 4.3 User's Guide (SC27-8893-00)

Content

The most recent update is listed first.

Update 1
Date of change: May 2017
Topics: Multiple
Change description: For the PTF containing APARs PI70228, PI71589, PI71590, PI71592, and PI71598, enhancements were added to DB2 Automation Tool V4.3 to support DB2 V12.

- Topic: "Setting RECOVER options"
- Topic: "Specifying an alternate copy pool"
- Topic: "Recovery using the log"
- Topic: "Recovering an error range or a page"
- Topics: "REBUILD INDEX utility", "RUNSTATS options", "Setting statistics options" in the "Table space REORG options" topic, "Setting statistics options" in the "Index REORG options" topic
- Topic: "Specifying RUNSTATS INDEX and REBUILD INDEX column statistics"
- Topic: "Specifying RUNSTATS TABLE column statistics"
- Topic: "Setting FREQVAL and HISTOGRAM options"
- Topic: "Setting statistics options"
- Topic: "Object" in the "Statistics types on the Update Exceptions Profile Display" topic
- Topic: "Messages"

1. Topic: "Setting RECOVER options"

Add the following field descriptions:

> **Scope**
> (DB2 V12 and later) Type U to only recover objects that have changed after the point of recovery. Type A to recover all objects in the list regardless of whether they were updated.
>
> **Update alternate copy pool**
> (DB2 V12 and later) Type Y to select an alternate copy pool. Type C to clear the current copy pool name.
>
> **Alternate copy pool**
> (DB2 V12 and later) This field specifies the selected alternate copy pool which will be used for the system-level backup. If this field is specified, then only the system-level backups with the specified copy pool will be candidates as a restore base.

2. Topic: "Specifying an alternate copy pool"

Add the following topic to "Chapter 8, Creating utility profiles", under the "Recover options" topic.

Specifying an alternate copy pool

DB2 V12 and later allows additional copy pools to be specified when making system-level backups. In a RECOVER utility profile, you can specify an alternate copy pool to limit which system-level backups that RECOVER can use. If you specify an alternate copy pool, RECOVER will consider only those system-level backups that are associated with the specified copy pool.

Procedure

1. On the Recover Utility Profile Options panel, enter Y in the **Update alternate copy pool** field and press Enter. A list of copy pools that are available on your LPAR is displayed on the Recover Utility copy pool selection panel.
2. On the Recover Utility copy pool selection panel, enter S in the **CMD** field next to a copy pool to select it. Only one alternate copy pool can be selected.
3. Press Enter. A message is displayed to confirm that the alternate copy pool was selected.
4. Press PF3. The Recover Utility Profile Options panel is displayed. The selected alternate copy pool is listed in the **Alternate copy pool** field.

3. Topic: "Recovery using the log"

Add the following field description:

FLASHCOPY_PPRCP
(DB2 V12 and later) This field specifies the behavior for DFSMShsm FlashCopy requests when the DB2 target volumes are primary volumes in a metro mirror relationship and the recovery base is a system-level backup or FlashCopy image copy.

Type N to disallow a data set level FlashCopy of the system-level backup, or FlashCopy image copy to the DB2 target volumes.

Type P to allow the PPRC pair to be placed in a duplex pending state when the FlashCopy image copy or data sets from the system level backup are restored when the DB2 target volumes are primary volumes in PPRC pairs.

Type M to note that it is preferred that the volume pairs not be placed in a duplex pending state when the FlashCopy image copy or data sets from the system level backup are restored when the DB2 target volumes are metro mirror primary volumes.

Type R to ensure the mirror is preserved and the volume pairs not be placed in a duplex pending state when the FlashCopy image copy or data sets from the system-level backup are restored when the DB2 target volumes are metro mirror primary volumes.

4. Topic: "Recovering an error range or a page"

The Page dsnum field was added to the panel in this topic. Add the following to the last bullet in the topic as follows:

> In addition, if you want to recover a specific page and the object is a range-partitioned table space with relative page numbering, you must enter the data set number in the Page dsnum field.

5. Topics:
"REBUILD INDEX utility"
"RUNSTATS options"
"Setting statistics options" in the "Table space REORG options" topic
"Setting statistics options" in the "Index REORG options" topic

> Add the following field description to these topics:
>
> **Invalidate Cache**
>
> (DB2 V12 and later) This keyword indicates whether the dynamic cache will be invalidated. Type Y if you want the statements in the dynamic cache to be invalidated for the objects specified in the job statement. Type N if you do not want the statements in the dynamic cache to be invalidated for the objects specified in the job statement.

6. Topic: "Specifying RUNSTATS INDEX and REBUILD INDEX column statistics"

> This topic was revised to include the REORG INDEX utility statistics, and is now titled "Specifying RUNSTATS INDEX, REBUILD INDEX, and REORG INDEX column statistics." Column statistics for these three utilities are specified by using the same procedure and the same panels. The RUNSTATS index panels are shown in the topic as examples.

7. Topic: "Specifying RUNSTATS TABLE column statistics"

> This topic was revised to include the REORG TABLE utility column statistics, and is now titled "Specifying RUNSTATS and REORG table column statistics." Column statistics for these two utilities are specified by using the same procedure and the same panels.

8. Topic: "Setting FREQVAL and HISTOGRAM options"

> Add the following field to this topic under step 3:
>
> **Freqval Occurrence**
>
> Enter M to specify that the most frequently occurring values for the specified set of key columns are to be collected. Enter L to specify that the least frequently occurring values for the specified set of key columns are to be collected. Enter B to specify that both most and least frequently occurring values are to be collected.

9. Topic: "Setting statistics options"

Add the following field to this topic:

Profile

(DB2 V10 NFM and above only) This option is used to manage (create, delete, update, or use) one or more tables' statistics profiles. These profiles define the set of statistics that are to be collected when running AUTOSTATS. The following are valid values:

- blank - A profile will not be used.
- U - Use profile. This indicates to gather statistics that were previously created in a profile for the given table.
- I - Use profile, include NPI. This is the same as U(se) profile above, except it also includes the non-partitioned indexes. This is only valid for partitioned objects.
- D - Delete profile. Delete the existing profile from the catalog table.
- P - Update profile. Change the definition of an existing profile.
- S - Set profile. Create a profile for a given table.
- E - Set profile from existing stats. Refer to the DB2 Utility Guide for DB2 V10 for information.

10. Topic: "Object" in the "Statistics types on the Update Exceptions Profile Display" topic

An exception condition was added to check for the new pending ALTER INDEX COMPRESS definition change for indexes. Add the following to "Table 11. Statistics type: Object":

PEND_IX_COMPRESS: (DB2 V12 and later) Triggers an exception for an index if the index has a pending ALTER INDEX COMPRESS.

11. Topic: "Messages"

The following messages were added or changed:

HAAB168I Invalidatecache Yes is required for [RUNSTATS Update None Report No | Reset Accesspath] Invalidatecache has been set to Yes.

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. INVALIDATECACHE is set to YES.

HAAB363W: *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.

HAAB606E 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.

HAAB607E: 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.

HAAB608I: 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.

HAAB609E: 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.

HAAM427I Copy pool name has already been selected.

Explanation: The selected copy pool name already exists as the alternate copy pool name for this RECOVER utility profile.

User response: Press PF3 or enter the Cancel command to retain the copy pool name that has already been selected, or choose a different copy pool name.

HAAM428I: *copy-pool-name* **has been selected as the alternate copy pool name.**

Explanation: The copy pool name that is listed in the message has been selected as the alternate copy pool for the current RECOVER utility profile.

User response: No action is required.

HAAM429E Only one copy pool name can be selected. Choose one copy pool name and resubmit.

Explanation: You entered multiple select line commands.

User response: Remove the additional line commands and enter S next to only one copy pool name to select it.

HAAM562E Dsnum number must be decimal digits or hex digits enclosed in single quotation marks.

Explanation: An invalid value was entered in the Page Dsnum field. If specified, the DSNUM must be a 1- through 8-character base 10 number, or a 1- through 5-character base 16 number that is enclosed in a hexadecimal indicator (for example, X'89ABC').

User response: Correct the invalid value and press Enter.

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HAAM815E 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.

HAAM816E: 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.

HAAM817E 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.