

5.4

*IBM OMEGAMON for Db2 Performance  
Expert on z/OS  
Enhanced 3270 User Interface User's  
Guide*



**2021-03-23 edition**

This edition applies to Version 5 Release 4 of IBM® OMEGAMON for DB2® Performance Expert on z/OS (product number 5655-W37) and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright International Business Machines Corporation 2005, 2021.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

© **Rocket Software Inc. 2016, 2021.**

---

# Contents

<b>About this information.....</b>	<b>V</b>
<b>Chapter 1. Overview.....</b>	<b>1</b>
Where to find information.....	1
Service updates and support information.....	2
Accessibility features.....	2
How to send your comments.....	3
<b>Chapter 2. Using the enhanced 3270 user interface.....</b>	<b>5</b>
<b>Chapter 3. Overview of E3270UI.....</b>	<b>7</b>
<b>Chapter 4. All Active DB2 Data Sharing Groups.....</b>	<b>9</b>
Threads.....	10
T DSG Active Threads (KDPPTHRD).....	10
V Group Object Analysis Volume Thread (KDPGVOLT).....	11
P Group Object Analysis Thread Database (KDPGOATD).....	11
L Group Lock Conflicts (KDPGLKGN).....	12
G DSNZPARMs (KDPPZSYS).....	12
Group object analysis.....	14
D Group Object Analysis Database Activity (KDPGOATS).....	14
O Group Object Analysis (KDPGOA).....	14
Q Group Object Analysis Volume (KDPGVOL).....	15
F Group SQL Counts (KDPPSQL1).....	16
S Global and Group Buffer Pools (KDPPGPLL).....	16
X Coupling Facility Details (KDPXCFD).....	17
H History.....	18
<b>Chapter 5. All Active DB2 Subsystems.....</b>	<b>19</b>
Threads.....	19
T Active Threads (KDPTH52).....	19
C CICS Threads (KDPCICTH).....	21
I IMS Connections (KDPIMS).....	22
J DB2 Connect Server (KDPCONN).....	22
G DSNZPARMS (KDPZSYS).....	23
K Key Performance Indicators Display (KDPKPI1).....	24
L Locking Conflicts (KDPLKC2).....	25
M DB2 Messages (KDPMMSG).....	26
S System Statistics (KDPSUBSM).....	26
H History.....	29
<b>Chapter 6. Using thread history.....</b>	<b>31</b>
Viewing thread history.....	31
Filtering thread history by time ranges (timespan).....	31
Filtering thread history by event counts and times.....	32
Filtering thread history by thread IDs.....	32
Filtering thread history by end user.....	33
Viewing summary of all selected history threads.....	34
Viewing thread history detail accounting.....	34

Viewing thread history wait times.....	34
Configuring thread history.....	34
Thread history parameters.....	35
Setting new PARMGEN parameters.....	35
Saving disk space if thread history is not in use.....	36
Thread history parameters example.....	37
Adding Thread History Datasets.....	38
Accessing information about buffer pool performance.....	39

## **Chapter 7. About Anomaly Detection.....41**

Starting Anomaly Detection.....	41
Detecting anomalies.....	41

## **Chapter 8. User interface icons and PF keys..... 43**

## **Chapter 9. Enabling historical data collection..... 45**

## **Chapter 10. Workspace names and descriptions.....47**

## **Product legal notices..... 59**

## **Index..... 63**

## About this information

---

IBM OMEGAMON for Db2 Performance Expert on z/OS (also referred to as OMEGAMON for Db2 Performance Expert) is a performance analysis, monitoring, and tuning tool for Db2 on z/OS® environments.

The document is part of the OMEGAMON for Db2 Performance Expert documentation library which provides instructions for installing, configuring, and using OMEGAMON for Db2 Performance Expert and is designed to help database administrators, system programmers, application programmers, and system operators perform these tasks:

- Plan for the installation of OMEGAMON for Db2 Performance Expert
- Install and operate OMEGAMON for Db2 Performance Expert
- Customize your OMEGAMON for Db2 Performance Expert environment
- Diagnose and recover from OMEGAMON for Db2 Performance Expert problems
- Design and write applications for OMEGAMON for Db2 Performance Expert
- Use OMEGAMON for Db2 Performance Expert with other DB2 products

**Tip:** To find the most current version of this information, always use [IBM Knowledge Center](#), which is updated more frequently than PDF books.



---

# Chapter 1. Overview

OMEGAMON for Db2 Performance Expert is a performance analysis, monitoring, and tuning tool for Db2 on z/OS environments that enables you to perform a variety of tasks such as reporting, trend analysis, and buffer pool analysis.

## Where to find information

---

The OMEGAMON for Db2 Performance Expert documentation set includes the following documents.

**Full documentation library (Knowledge Center)**

SC27-9821-00

The OMEGAMON for Db2 Performance Expert Knowledge Center library includes all OMEGAMON for Db2 Performance Expert content.

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/kdp54\\_welcome.html](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/kdp54_welcome.html)

**Program Directory**

GI19-5019

<http://publibfp.dhe.ibm.com/epubs/pdf/i1950190.pdf>

**Full documentation library (PDF)**

SC27-9821-00

The IBM OMEGAMON for Db2 Performance Expert User's Guide PDF includes all of the OMEGAMON for Db2 Performance Expert content. It is the PDF version of the Knowledge Center library.

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/kdpuge4.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/kdpuge4.pdf)

The OMEGAMON for Db2 Performance Expert documentation is also divided into smaller individual documents for ease-of-use. These documents contain a subset of the topics in the full documentation library.

**Planning, Customization, and Migration Guide**

GH12-7072

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2cc540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2cc540.pdf)

**Buffer Pool Analyzer User's Guide**

SH12-7075

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/bpobp540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/bpobp540.pdf)

**Reporting User's Guide**

SH12-7071

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2ru540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2ru540.pdf)

**Classic Interface User's Guide**

SH12-7068

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2ci540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2ci540.pdf)

**ISPF Client User's Guide**

SH12-7070

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2mi540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2mi540.pdf)

**Enhanced 3270 User Interface User's Guide**

SH12-7074

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2ui540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2ui540.pdf)

**Performance Expert Client User's Guide**

SH12-7069

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2mp540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2mp540.pdf)

**Report Reference**

SH12-7065

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2rr540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2rr540.pdf)**Report Command Reference**

SH12-7066

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2rc540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2rc540.pdf)**Parameter Reference**

SH12-7073

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2pr540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2pr540.pdf)**Messages and Troubleshooting Guide**

GH12-7067

[https://www.ibm.com/support/knowledgecenter/SSUSPS\\_5.4.0/kdp54/ko2me540.pdf](https://www.ibm.com/support/knowledgecenter/SSUSPS_5.4.0/kdp54/ko2me540.pdf)**Other documents**

These OMEGAMON for Db2 Performance Expert documents are available for users who need information about special topics.

**Quick Start Guide - GI19-5019**

Quick start information for the SQL Dashboard and the end-to-end SQL monitoring functions.

<http://publibfp.dhe.ibm.com/epubs/pdf/h1270640.pdf>**DB2 Performance Expert for Multiplatforms**

SG24-6867

A guide to installing, configuring, and using OMEGAMON for Db2 Performance Expert.

<http://www.redbooks.ibm.com/redbooks/pdfs/sg246470.pdf>

## Service updates and support information

---

You can access support information for IBM Tivoli® OMEGAMON® for Db2 Performance Expert on z/OS and IBM OMEGAMON for Db2 Performance Monitor on z/OS on the Support home website, or you can use the IBM Support Assistant.

**Support home**

On the *Support home* website, you can find service updates and support information including software fix packs, PTFs, Frequently Asked Questions (FAQs), technical notes, troubleshooting information, and downloads.

## Accessibility features

---

Accessibility features help people with a physical disability, such as restricted mobility or limited vision, or with other special needs, to use software products successfully. This Knowledge Center is developed to comply with the accessibility requirements of software products according to Section 508 of the Rehabilitation Act of the United States.

The accessibility features in this Knowledge Center enable users to do the following tasks:

- Use assistive technologies, such as screen-reader software and digital speech synthesizer, to hear what is displayed on the screen. In this Knowledge Center, all information is provided in HTML format. Consult the product documentation of the assistive technology for details on using assistive technologies with HTML-based information.
- Operate specific or equivalent features using only the keyboard.
- Magnify what is displayed on the screen.



In addition, all images are provided with alternative text so that users with vision impairments can understand the contents of the images.

### **Navigating the interface by using the keyboard**

Standard shortcut and accelerator keys are used by the product and are documented by the operating system. Refer to the documentation provided by your operating system for more information.

### **Magnifying what is displayed on the screen**

You can enlarge information in the product windows using facilities provided by the operating systems on which the product is run. For example, in a Microsoft Windows environment, you can lower the resolution of the screen to enlarge the font sizes of the text on the screen. Refer to the documentation provided by your operating system for more information.

## **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 information or any other documentation, you can complete and submit the [Reader Comment Form](#).



---

## Chapter 2. Using the enhanced 3270 user interface

You can monitor the performance of the z/OS systems, applications, and devices in your environment using the OMEGAMON for Db2 Performance Expert enhanced 3270 user interface.



---

## Chapter 3. Overview of E3270UI

The IBM Tivoli OMEGAMON enhanced 3270 user interface (enhanced 3270UI) is the latest generation of user interfaces for the OMEGAMON monitoring products.

The Enhanced 3270 User Interface offers integration capability with certain performance monitoring products. If you have IBM Db2 Query Monitor for z/OS and/or IBM OMEGAMON for CICS® on z/OS you can see metrics originating from these products embedded in IBM OMEGAMON for Db2 Performance Expert (and Monitor) on z/OS screens. These products must be installed, configured, and running in the same OMEGAMON Monitoring environment. See the program directory and related PTFs for installation considerations.

### Using the enhanced 3270UI

This document does not provide you with instructions about how to use the enhanced 3270UI. For a detailed description of the enhanced 3270UI together with information about how to use it, see [OMEGAMON Enhanced 3270 User Interface Knowledge Center](#).

For quick reference information about PF keys and icons, which you can use to navigate the enhanced 3270UI, see [Chapter 8, “User interface icons and PF keys,” on page 43](#).

### Navigating to KDPSTART

When you log on to the enhanced 3270UI, the workspace Enterprise Summary (KOBSTART) is displayed. It shows data from the products that are installed on your system.

From this workspace you can drill down to any other screen.

However, depending on the following criteria, a different workspace might be displayed after the first logon to OMEGAMON for Db2 PE if:

- More than one product that supports the enhanced 3270UI is installed on your system
- A particular workspace is designated as the first workspace in the site profile or the user profile

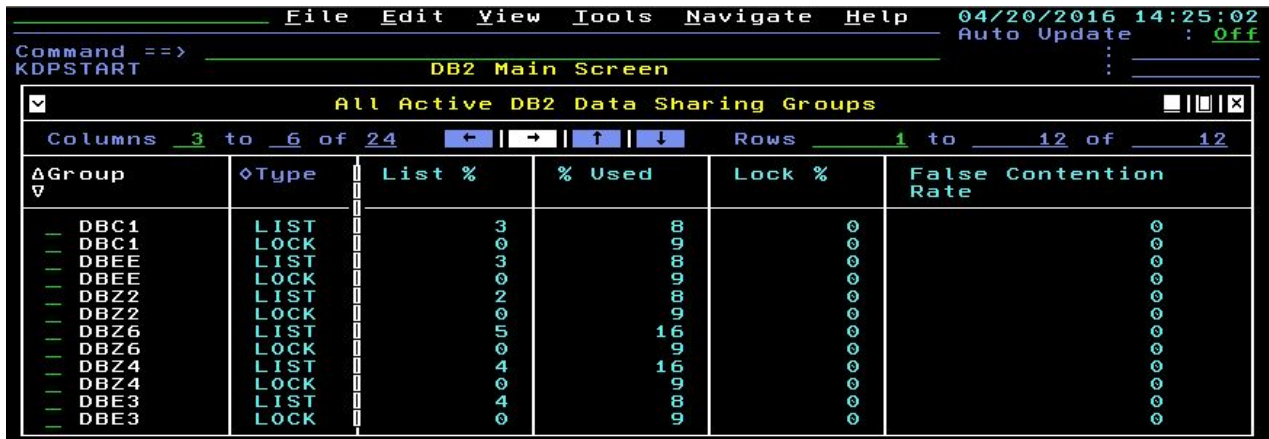


## Chapter 4. All Active DB2 Data Sharing Groups

The summary panel displays the DB2 data sharing groups that are active in your enterprise system.

It displays the general state and health of the active DB2 data sharing groups. This is the starting point for troubleshooting.

### Panel



ΔGroup	Type	List %	% Used	Lock %	False Contention Rate
DBC1	LIST	3	8	0	0
DBC1	LOCK	0	9	0	0
DBEE	LIST	3	8	0	0
DBEE	LOCK	0	9	0	0
DBZ2	LIST	2	8	0	0
DBZ2	LOCK	0	9	0	0
DBZ6	LIST	5	16	0	0
DBZ6	LOCK	0	9	0	0
DBZ4	LIST	4	16	0	0
DBZ4	LOCK	0	9	0	0
DBE3	LIST	4	8	0	0
DBE3	LOCK	0	9	0	0

Figure 1. All Active DB2 Subsystems

For more information about panels and workspaces, see [http://www-01.ibm.com/support/knowledgecenter/SSAUBV/com.ibm.omegamon\\_share.doc\\_6.3.0.2/e3270/workspaces\\_overview\\_beacon.htm](http://www-01.ibm.com/support/knowledgecenter/SSAUBV/com.ibm.omegamon_share.doc_6.3.0.2/e3270/workspaces_overview_beacon.htm).

### Navigating to All Active DB2 Sharing Groups

From **Enterprise Summary**, select the option **P** next to any DB2 subsystem to navigate to DB2 Main Screen. DB2 Main Screen consists of **All Active DB2 Data Sharing Groups**, followed by **All Active DB2 Subsystems**.

### Options menu

The following options exist:

1. D Group Object Analysis Database Activity ([KDPGOATS](#))
2. F System SQL Counts ([KDPPSQL1](#))
3. G DSNZPARAMs ([KDPPZSYS](#))
4. L Global Lock Conflicts ([KDPGLKGN](#))
5. O Group Object Analysis ([KDPGOA](#))
6. P Group Object Analysis Thread Database ([KDPGOATD](#))
7. Q Group Object Analysis Volume ([KDPGVOL](#))
8. S Global & Group Buffer Pools ([KDPPGPLL](#))
9. T DSG Active Threads ([KDPPTHRD](#))
10. V Group Object Analysis Volume Thread ([KDPGVOLT](#))
11. X Coupling Facility Details ([KDPXCFD](#))
12. H History

## Threads

---

A view of thread activity for DB2 data sharing groups.

### T DSG Active Threads (KDPPTHRD)

KDPPTHRD provides a global view of thread activity for an entire data sharing group.

With this information, you can identify all active application threads and track thread activity over a period of time. You can use the thread data to monitor critical application threads and to evaluate the thread elapsed times and the wait times for critical threads. You can also observe thread activity for threads within the same system, group, and member.

#### Navigating to KDPPTHRD

All Active DB2 Data Sharing Groups → T DSG Group Active Threads

Select the corresponding tab to navigate to:

##### **Coupling (KDPXCFD)**

Connection status information for all connections to a coupling facility structure. See [“X Coupling Facility Details \(KDPXCFD\)”](#) on page 17.

##### **GOA (KDPGOA)**

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

##### **SQLC (KDPPSQL1)**

Displays the system SQL counts for a thread for each member of a data sharing group. See [“F Group SQL Counts \(KDPPSQL1\)”](#) on page 16.

##### **DSNZPARMs (KDPPZSYS)**

Displays information about DSNZPARM parameters that are related to thread management. See [“G DSNZPARMs \(KDPPZSYS\)”](#) on page 12.

##### **Lock conf (KDPGLKGN)**

The lock conflicts that exist in a data sharing group. See [“L Group Lock Conflicts \(KDPGLKGN\)”](#) on page 12.

##### **Buf Pool (KDPPGPLL)**

A summary of all group buffer pools for all members of a data sharing group. See [“S Global and Group Buffer Pools \(KDPPGPLL\)”](#) on page 16..

#### Zoom-in from KDPPTHRD

##### **C Cancel Thread (KDPTCANC)**

Provides an option to cancel a thread.

##### **O Thread Locks Owned (KDPTHRL)**

Detailed information about the locks and the claims that are owned by an individual thread.

##### **S Thread Detail Accounting (KDPTHDA2)**

The accounting classes 1 and 2 for a selected thread.

##### **T Thread Detail SQL Text (KDPPSQLT)**

The SQL statement that a DB2 thread is currently executing.

##### **W Thread Detail Class 3 (KDPTHDR3)**

The accounting class 3 wait times for a selected thread.

##### **Q Thread Statistics (KDPPTHDS)**

Thread statistics for a specific application thread. If the application thread is a parallel thread, the table view displays thread statistics for all the associated parallel threads.

##### **X Multi-Thread Cancel No Confirmation (KDPPTKAC)**

Cancel multiple threads without being prompted individually to confirm each thread cancellation.



## V Group Object Analysis Volume Thread (KDPGVOLT)

KDPGVOLT displays an overview of the performance of volumes that contain DB2 objects. With this information, you can evaluate DASD performance by volume.

### Navigating to KDPGVOLT

All Active DB2 Data Sharing Groups → V Group Object Analysis Volume Thread

Select the corresponding tab to navigate to:

#### GOA DB (KDPGOATS)

A high-level analysis of getpage and I/O activity from a DB2 database perspective. See [“D Group Object Analysis Database Activity \(KDPGOATS\)”](#) on page 14.

#### GOA (KDPGOA)

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

#### GOA TDB (KDPGOATD)

Object Analysis database use by thread for a data sharing group. See [“P Group Object Analysis Thread Database \(KDPGOATD\)”](#) on page 11.

#### GOA VOL (KDPGVOL)

An overview of the performance of the volumes that contain DB2 objects. See [“Q Group Object Analysis Volume \(KDPGVOL\)”](#) on page 15.

#### GOA VTH (KDPGVOLT)

The volume activity by thread workspace. See [“V Group Object Analysis Volume Thread \(KDPGVOLT\)”](#) on page 11.

### Zoom-in from KDPGVOLT

#### S Group Object Analysis Volume Detail (KDPGVOL2)

The thread activity by volume workspace.

## P Group Object Analysis Thread Database (KDPGOATD)

KDPGOATD displays the usage of the Object Analysis database by thread for a data sharing group.

### Navigating to KDPGOATD

All Active DB2 Data Sharing Groups → P Group Object Analysis Thread Database

Select the corresponding tab to navigate to:

#### GOA (KDPGOA)

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

#### GOA DB (KDPGOATS)

A high-level analysis of getpage and I/O activity from a DB2 database perspective. See [“D Group Object Analysis Database Activity \(KDPGOATS\)”](#) on page 14.

#### GOA TDB (KDPGOATD)

Object Analysis database use by thread for a data sharing group. See [“P Group Object Analysis Thread Database \(KDPGOATD\)”](#) on page 11.

#### GOA VOL (KDPGVOL)

An overview of the performance of the volumes that contain DB2 objects. See [“Q Group Object Analysis Volume \(KDPGVOL\)”](#) on page 15.

#### GOA VTH (KDPGVOLT)

The volume activity by thread workspace. See [“V Group Object Analysis Volume Thread \(KDPGVOLT\)”](#) on page 11.

## Zoom-in from KDPGOATD

### S Group Object Analysis Spacename (KDPSPAC)

Provides information about the activity of DB2 databases and DB2 tablespaces. With this information, you can do a more detailed analysis of the activities for a DB2 databases and DB2 tablespaces.

## L Group Lock Conflicts (KDPGLKGN)

---

KDPGLKGN displays the lock conflicts that exist in a data sharing group.

### Navigating to KDPGLKGN

All Active DB2 Data Sharing Groups → L Group Lock Conflicts

Select the corresponding tab to navigate to:

#### Threads (KDPPTHRD)

Provides a global view of thread activity for an entire data sharing group. See [“T DSG Active Threads \(KDPPTHRD\)”](#) on page 10.

#### Coupling (KDPXCFD)

Connection status information for all connections to a coupling facility structure. See [“X Coupling Facility Details \(KDPXCFD\)”](#) on page 17.

#### GOA (KDPGOA)

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

#### SQLC (KDPPSQL1)

Displays the system SQL counts for a thread for each member of a data sharing group. See [“F Group SQL Counts \(KDPPSQL1\)”](#) on page 16.

#### DSNZPARMS (KDPPZSYS)

Displays information about DSNZPARM parameters that are related to thread management. See [“G DSNZPARMs \(KDPPZSYS\)”](#) on page 12.

#### Lock Conf (KDPGLKGN)

The lock conflicts that exist in a data sharing group. See [“L Group Lock Conflicts \(KDPGLKGN\)”](#) on page 12.

#### Buf Pool (KDPPGPLL)

A summary of all group buffer pools for all members of a data sharing group. See [“S Global and Group Buffer Pools \(KDPPGPLL\)”](#) on page 16.

## Zoom-in from KDPGLKGN

### Thread Locks Owned (KDPPLK)

The locks and claims that are owned by a thread that is linked from the data sharing group Lock Conflicts workspace.

## G DSNZPARMs (KDPPZSYS)

---

KDPPZSYS displays information about DSNZPARM parameters that are related to thread management. These parameters are defined on the DB2 panels DSNTIPE and DSNTIPE1.

### Navigation to KDPPZSYS

All Active DB2 Subsystems → G DSNZPARMs

Select the corresponding tab to navigate to:

#### TRC (Trace Parameters KDPPZTRC)

Parameters that are related to the trace. These parameters are defined on the DB2 panel, DSNTIPN.

**LOG (Logging Parameters KDPPZLOG)**

Parameters that are related to the active log. These parameters are defined on the DB2 panel, DSNTIPL.

**ARCH (Archiving Parameters KDPPZARC)**

Parameters that are related to log archiving. These parameters are defined on the DB2 panels DSNTIPA and DSNTIPH.

**CNTL (Authorizaation/RCF/DDF parameters KDPPZCTL)**

Parameters that are related to operator functions. These parameters are defined on the DB2 panels DSNTIPO, DSNTIPP, DSNTIPP1, DSNTIPR and DSNTIP5.

**IRLM (IRLM Parameters KDPPZIRLM)**

Parameters that are related to IRLM. These parameters are defined on the DB2 panels DSNTIPI and DSNTIPJ.

**STG (Storage Parameters KDPPZSTG)**

DSNZPARM parameters that are related to storage and sizes. These parameters are defined on the DB2 panels DSNTIPC and DSNTIPD.

**DSN (Dataset and Database parameters KDPPZDSN)**

Parameters that are related to datasets and databases. These parameters are defined on DB2 panels DSNTIP7, DSNTIP71, DSNTIP91, and DSNTIPS.

**DDCS (Data Definition Control Parameters KDPPZDDCS)**

Parameters that are related to data. These parameters are defined on the DB2 panel DSNTIPZ.

**DSG (Data Sharing Parameters KDPPZDSG)**

The parameters that are related to data sharing. These parameters are defined on the DB2 panel DSNTIPK.

**SP (Stored Procedure Parameters KDPPZSP)**

DSNZPARM parameters that are related to Stored Procedures. These parameters are defined on the DB2 panel DSNTIPX.

**UTIL (Utility Parameters KDPPZUTL)**

DSNZPARM parameters that are related to utilities. These parameters are defined on DB2 the panels DSNTIP6, DSNTIP61, and DSNTIP62.

**APPL (Application Parameters KDPPZAPP)**

Parameters that are related to applications. These parameters are defined on the DB2 panels DSNTIPF, DSNTIP4, and DSNTIP41.

**DATA (Data Parameters KDPPZDAT)**

Parameters that are related to data. These parameters are defined on the DB2 panels DSNTIPA2, DSNTIPO3, and DSNTIPM.

**PERF (Performance Parameters KDPPZPF)**

Parameters that are related to performance and optimization. These parameters are defined on the DB2 panels DSNTIP8, DSNTIP81, and DSNTIP82.

**BP (Buffer Pool Parameters KDPPZBP)**

Parameters that are related to the Default Buffer Pools. These parameters are defined on the DB2 panel DSNTIP1.

**OTHER (Other System Parameters KDPPZOTH)**

Miscellaneous parameters that are defined on the DB2 panels DSN6SYSP, DSN6LOGP, DSN6ARVP, DSN6SPRM, DSN6FAC, and DSNHDECP.

**Searching for DSNZPARM Parameters (KDPPZFND)**

To search for a DSNZPARM parameter:

1. At the command line, enter either:

- F
- FIND

- FINDM
- FINDMENU

The **Find DSNZPARM Parameters** (KDPZZFND) workspace is displayed.

2. Search for the parameter by field name or description.

## Group object analysis

---

A global view of object allocation data for a specific DB2 data sharing group.

### D Group Object Analysis Database Activity (KDPGOATS)

KDPGOATS displays a high-level analysis of getpage and I/O activity from a DB2 database perspective.

#### Navigating to KDPGOATS

All Active DB2 Data Sharing Groups → D Group Object Analysis Database Activity

Select the corresponding tab to navigate to:

##### GOA DB (KDPGOATS)

A high-level analysis of getpage and I/O activity from a DB2 database perspective. See [“D Group Object Analysis Database Activity \(KDPGOATS\)”](#) on page 14.

##### GOA (KDPGOA)

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

##### GOA DB (KDPGOATS)

Object Analysis database use by thread for a data sharing group. See [“P Group Object Analysis Thread Database \(KDPGOATD\)”](#) on page 11.

##### GOA VOL (KDPGVOL)

An overview of the performance of the volumes that contain DB2 objects. See [“Q Group Object Analysis Volume \(KDPGVOL\)”](#) on page 15.

##### GOA VTH (KDPGVOLT)

The volume activity by thread workspace. See [“V Group Object Analysis Volume Thread \(KDPGVOLT\)”](#) on page 11.

#### Zoom-in from KDPGOATS

##### S Object Analysis Activity by Spacename (KDPGOAT2)

Information about the activity of a group object by table space. With this information, you can do a more detailed analysis of the activities for a DB2 tablespace.

### O Group Object Analysis (KDPGOA)

KDPGOA displays global view of object allocation data for a specific data sharing group.

#### Navigating to KDPGOA

All Active DB2 Data Sharing Groups → O Group Object Analysis

Select the corresponding tab to navigate to:

##### GOA (KDPGOA)

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

##### GOA DB (KDPGOATS)

A high-level analysis of getpage and I/O activity from a DB2 database perspective. See [“D Group Object Analysis Database Activity \(KDPGOATS\)”](#) on page 14.

**GOA TDB (KDPGOATD)**

Object Analysis database use by thread for a data sharing group. See [“P Group Object Analysis Thread Database \(KDPGOATD\)”](#) on page 11.

**GOA VOL (KDPGVOL)**

An overview of the performance of the volumes that contain DB2 objects. See [“Q Group Object Analysis Volume \(KDPGVOL\)”](#) on page 15.

**GOA VTH (KDPGVOLT)**

The volume activity by thread workspace. See [“V Group Object Analysis Volume Thread \(KDPGVOLT\)”](#) on page 11.

**Zoom-in from KDPGOA****S Object Analysis Activity by Spacename (KDPGOAT2)**

Information about the activity of a group object by table space. With this information, you can do a more detailed analysis of the activities for a DB2 tablespace.

**Q Group Object Analysis Volume (KDPGVOL)**

KDPGVOL displays an overview of the performance of volume that contain DB2 objects. With this information you can evaluate DASD performance by volume.

**Navigating to KDPGVOL**

All Active DB2 Data Sharing Groups → Q Group Object Analysis Volume Group Statistics

Select the corresponding tab to navigate to:

**GOA DB (KDPGOATS)**

A high-level analysis of getpage and I/O activity from a DB2 database perspective. See [“D Group Object Analysis Database Activity \(KDPGOATS\)”](#) on page 14.

**GOA (KDPGOA)**

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

**GOA TDB (KDPGOATD)**

Object Analysis database use by thread for a data sharing group. See [“P Group Object Analysis Thread Database \(KDPGOATD\)”](#) on page 11.

**GOA VOL (KDPGVOL)**

An overview of the performance of the volumes that contain DB2 objects. See [“Q Group Object Analysis Volume \(KDPGVOL\)”](#) on page 15.

**GOA VTH (KDPGVOLT)**

The volume activity by thread workspace. See [“V Group Object Analysis Volume Thread \(KDPGVOLT\)”](#) on page 11.

**Zoom-in from KDPGVOL****D Group Object Analysis Database Activity (KDPGOATS)**

A high-level analysis of getpage and I/O activity from a DB2 database perspective. See [“D Group Object Analysis Database Activity \(KDPGOATS\)”](#) on page 14.

**O Group Object Analysis (KDPGOA)**

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)”](#) on page 14.

**P Group Object Analysis Thread Database (KDPGOATD)**

Object Analysis database use by thread for a data sharing group. See [“P Group Object Analysis Thread Database \(KDPGOATD\)”](#) on page 11.

### **S. Group Object Analysis Volume Database (KDPGVDB)**

Displays information you can use to analyze I/O activity for a single volume in a DB2 database. Based on the information that this workspace provides, you can recommend changes, set up situations, and verify that your recommended changes improve system performance.

### **V Group Object Analysis Volume Thread (KDPGVOLT)**

The volume activity by thread workspace. See [“V Group Object Analysis Volume Thread \(KDPGVOLT\)” on page 11.](#)

### **H History**

Near-term History provides the capability to investigate problems that occurred in the recent past.

## **F Group SQL Counts (KDPPSQL1)**

---

KDPPSQL1 displays the system SQL counts for Data Manipulation Language (DML) for each member of a data sharing group.

### **Navigating to KDPPSQL1**

All Active DB2 Data Sharing Groups → F Group SQL Counts

Select the corresponding tab to navigate to:

#### **DCL (Data Control Language KDPPSQL2)**

The system SQL counts for the Data Control Language (DCL) for each member of a data sharing group.

#### **DDL (Data Definition Language KDPPSQL3)**

The system SQL counts for the Data Definition Language (DDL) for each member of a data sharing group.

#### **RID (Record Identifier List Processing KDPPSQL4)**

The system SQL counts for Record Identifier (RID) List Processing for each member of a data sharing group.

#### **PARAL (Query Parallelism KDPPSQL5)**

The system SQL counts for query parallelism for each member of a data sharing group.

#### **NESTED (Stored Procedures, User Defined Functions, Triggers KDPPSQL6)**

The system SQL counts for Stored Procedures, User Defined Functions, and Triggers for each member of a data sharing group.

#### **PREP (Prepares KDPPSQL7)**

The system SQL counts for Prepares for each member of a data sharing group.

#### **ROWID (Row ID Access KDPPSQLD)**

The system SQL counts for Row ID Access for each member of a data sharing group.

#### **CON STMT (Concentrate Literals KDPPSQL8)**

The system SQL counts for Concentrate Literals for each member of a data sharing group.

#### **USE COMMITTED (KDPPSQLA)**

The system SQL counts for Use Committed for each member of a data sharing group.

#### **WORKFILE (KDPPSQLB)**

The system SQL counts for workfiles for each member of a data sharing group.

#### **MISC (Miscellaneous KDPPSQLE)**

The system miscellaneous SQL counts for each member of a data sharing group.

## **S Global and Group Buffer Pools (KDPPGPLL)**

---

KDPPGPLL displays a summary of all group buffer pools for all members of a data sharing group.

### **Navigating to KDPPGPLL**

All Active DB2 Data Sharing Groups → S Group Buffer Pools

Select the corresponding tab to navigate to:

**Global Buffer Pools (KDPPGBPO)**

The global buffer pools for all members of a data sharing group. See [“Zoom-in from KDPPGBPO” on page 17](#).

**Group Buffer Pools (KDPPGPLL)**

A summary of all group buffer pools for all members of a data sharing group.

**Zoom-in from KDPPGPLL**

**A Sync Read \ GBP Write (KDPPGBPS)**

Sync reads, writes and the hit ratio of a group buffer pool for all members of a data sharing group.

**B Prefetch \ Castout (KDPPGBPP)**

Prefetch information and castout information about a group buffer pool for all members of a data sharing group.

**L P-Locks (KDPPGBPL)**

The P-Lock information for a group buffer pool for all members of a data sharing group.

**S Secondary GBP (KDPPGBPC)**

The DB2 Group Buffer Pool secondary information for all members of a data sharing group.

**H History**

Near-term History provides the capability to investigate problems that occurred in the recent past.

**Zoom-in from KDPPGBPO**

**S Global Group Buffer Pool Details (KDPPGBPD)**

Group buffer pool detail for all members of a data sharing group.

**H History**

Near-term History provides the capability to investigate problems that occurred in the recent past.

## **X Coupling Facility Details (KDPXCFD)**

---

KDPXCFD displays connection status information for all connections to a coupling facility structure.

### **Navigating to KDPXCFD**

All Active DB2 Data Sharing Groups → X Coupling Facility Details

Select the corresponding tab to navigate to:

**Threads (KDPPTHRD)**

Provides a global view of thread activity for an entire data sharing group. See [“T DSG Active Threads \(KDPPTHRD\)” on page 10](#).

**Coupling (KDPXCFD)**

Connection status information for all connections to a coupling facility structure. See [“X Coupling Facility Details \(KDPXCFD\)” on page 17](#).

**GOA (KDPGOA)**

A global view of object allocation data for a specific data sharing group. See [“O Group Object Analysis \(KDPGOA\)” on page 14](#).

**SQLC (KDPPSQL1)**

Displays the system SQL counts for a thread for each member of a data sharing group. See [“F Group SQL Counts \(KDPPSQL1\)” on page 16](#).

**DSNZPARMS (KDPPZSYS)**

Displays information about DSNZPARM parameters that are related to thread management. See [“G DSNZPARMs \(KDPPZSYS\)” on page 12](#).

**Lock Conf (KDPGLKGN)**

The lock conflicts that exist in a data sharing group. See [“L Group Lock Conflicts \(KDPGLKGN\)”](#) on page 12.

**Buf Pool (KDPPGPLL)**

A summary of all group buffer pools for all members of a data sharing group. See [“S Global and Group Buffer Pools \(KDPPGPLL\)”](#) on page 16.

## H History

---

Use near-term history to investigate problems that occurred in the recent past.

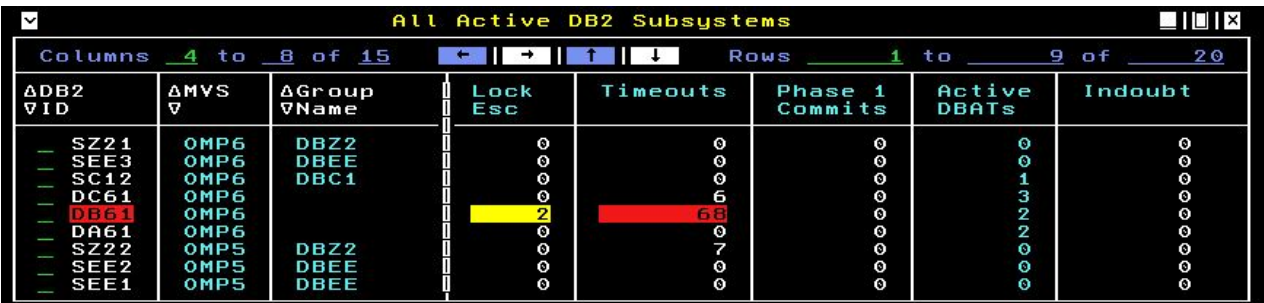
"H History" in the enhanced 3270UI refers to the OMEGAMON Family history based on the persistent datastore (PDS).



# Chapter 5. All Active DB2 Subsystems

The summary panel KDPSTART displays the DB2 subsystems that are active in your enterprise system. It displays the general state and health of the active DB2 subsystems. This is the starting point for troubleshooting.

## Panel



All Active DB2 Subsystems							
Columns 4 to 8 of 15				Rows 1 to 9 of 20			
ADB2 VID	AMYS V	AGroup VName	Lock Esc	Timeouts	Phase 1 Commits	Active DBATs	Indoubt
— SZ21	OMP6	DBZ2	0	0	0	0	0
— SEE3	OMP6	DBEE	0	0	0	0	0
— SC12	OMP6	DBC1	0	0	0	1	0
— DC61	OMP6		0	6	0	3	0
— DB61	OMP6		2	68	0	2	0
— DA61	OMP6		0	0	0	2	0
— SZ22	OMP5	DBZ2	0	7	0	0	0
— SEE2	OMP5	DBEE	0	0	0	0	0
— SEE1	OMP5	DBEE	0	0	0	0	0

Figure 2. All Active DB2 Subsystems

For more information about panels and workspaces, see [http://www-01.ibm.com/support/knowledgecenter/SSAUBV/com.ibm.omegamon\\_share.doc\\_6.3.0.2/e3270/workspaces\\_overview\\_beacon.htm](http://www-01.ibm.com/support/knowledgecenter/SSAUBV/com.ibm.omegamon_share.doc_6.3.0.2/e3270/workspaces_overview_beacon.htm).

## Options menu

The following options exist:

1. C CICS Threads ([KDPCICTH](#))
2. G DSNZPARMS ([KDPZSYS](#))
3. I IMS Connections ([KDPIMS](#))
4. J DB2 Connect Server ([KDPCONN](#))
5. K Key Performance Indicators Display ([KDPKPI1](#))
6. L Lock Conflicts ([KDPLKC2](#))
7. M DB2 Messages ([KDPMMSGs](#))
8. S System Statistics ([KDPSUBSM](#))
9. T Active Threads ([KDPTH52](#))
10. H History

## Threads

View information about thread activity for DB2 subsystems.

### T Active Threads (KDPTH52)

KDPTH52 displays a global view of thread activity for a specific DB2 subsystem.

It provides key performance data such as CPU rate, in-DB2 time, wait time, DB2 status, getpage, commits and updates that help you to identify any potential problem.

### Navigating to KDPTH52

All Active DB2 Subsystems → T Active Threads

Select the corresponding tab to navigate to:

**CICS (KDPTHCIS)**

Displays a CICS thread summary.

**Utilities (KDPUTILS)**

An overview of the active utilities. Workspace monitoring includes utilities that have not yet completed their run because of abnormal termination.

**Zoom-in from KDPTH52 and KDPTHCIS**

**C Cancel Thread (KDPTCANC)**

Provides an option to cancel a thread.

**A Thread Detail Accelerator (KDPTHRDC)**

Information about accelerator metrics for an active thread.

**D Thread Detail Distributed (KDPTHDD2)**

Information about the VTAM APPC conversations and TCP/IP conversations of a distributed (DDF) thread.

**E Thread Detail Enclave (KDPTHDE2)**

Detailed information about the workload manager (WLM) enclave service periods.

**L Thread Detail Locks Owned (KDPTHLDL)**

Detailed information about the locks and the claims that are owned by an individual thread.

**N Thread Detail Long Names (KDPTHNDN)**

The long names (identification fields) that are associated with a specific thread.

**Q Thread Detail SQL Counts (KDPTSQ1)**

The SQL counts for the Data Manipulation Language (DML) for a thread.

**S Thread Detail Accounting (KDPTHDA2)**

The accounting classes 1 and 2 for a selected thread. From the CICS Transaction Details subpanel, zoom in to:

- **CICS Region Summary (KCPRGNS)** : zoom into:
  - ! Take Actions on Task (**KDPTASAP**)
  - D CICS DB2 Connection Summary (**KCPD2S** or **KCPD2P**)
  - B CICS Bottlenecks (**KDPBOTS**)
  - F CICS File/Data Resources (**CICS File/Data** option menu)
  - R CICS Resources (**CICS Resources** option menu)
  - S CICS Region Overview (**KCPRGNO**)
  - T CICS Task Summary (**KDPTASS**)
- **Transaction ID**: navigate to CICS workspace **Transaction Details (KCPTTRND)**.
- **Current Program ID**: navigate to CICS workspace **Program Details (KDPPRGD)**.
- **Task Number**: navigate to CICS workspace **Details for Transaction Task (KCPTASD)**.

**T Thread Detail SQL Text (KDPTSQ1T)**

The SQL statement that a DB2 thread is currently executing.

**U Thread CICS Connection (KDPTHCIC)**

*Zoom-in from KDPTHCIS only.*

Display CICS connection information for a CICS thread.

**W Thread Detail Class 3 (KDPTHWD3)**

The accounting class 3 wait times for a selected thread.

**X Multi-thread Cancel No Confirm**

Cancel multiple threads without being prompted individually to confirm each thread cancellation.

## C CICS Threads (KDPCICTH)

KDPCICTH provides an overview of DB2 thread activity that originate from connected CICS regions. It provides key performance data such as CPU rate, in-DB2 time, wait time, DB2 status, getpage, commits and updates that help you to spot any potential problem.

### Navigating to KDPCICTH

All Active DB2 Subsystems → C CICS Threads

Select the corresponding tabs to navigate to:

#### Active Threads (KDPTH52)

A global view of thread activity for a specific DB2 subsystem. It provides key performance data such as CPU rate, in-DB2 time, wait time, DB2 status, getpage, commits and updates that help you to identify any potential problem.

#### CICS Connections (KDPCICS)

An overview of DB2 thread activity that is originating from connected CICS subsystems. Information about the CICS regions that are attached to DB2. See [“T Active Threads \(KDPTH52\)”](#) on page 19.

### Zoom-in from KDPCICTH

#### C Cancel Thread (KDPTCANC)

Provides an option to cancel a thread.

#### A Thread Detail Accelerator (KDPTHRDC)

Information about accelerator metrics for an active thread.

#### D Thread Detail Distributed (KDPTHDD2)

Information about the VTAM APPC conversations and TCP/IP conversations of a distributed (DDF) thread.

#### E Thread Detail Enclave (KDPTHDE2)

Detailed information about the workload manager (WLM) enclave service periods.

#### L Thread Detail Locks Owned (KDPTHRDL)

Detailed information about the locks and the claims that are owned by an individual thread.

#### N Thread Detail Long Names (KDPTHRDN)

The long names (identification fields) that are associated with a specific thread.

#### Q Thread Detail SQL Counts (KDPTSQL1)

The SQL counts for the Data Manipulation Language (DML) for a thread.

#### S Thread Detail Accounting (KDPTHDA2)

The accounting classes 1 and 2 for a selected thread. From the CICS Transaction Details subpanel, zoom in to:

- **CICS Region Summary (KCPRGNS)** : zoom into:
  - ! Take Actions on Task (**KDPTASAP**)
  - D CICS DB2 Connection Summary (**KCPD2S** or **KCPD2P**)
  - B CICS Bottlenecks (**KDPBOTS**)
  - F CICS File/Data Resources (**CICS File/Data** option menu)
  - R CICS Resources (**CICS Resources** option menu)
  - S CICS Region Overview (**KCPRGNO**)
  - T CICS Task Summary (**KDPTASS**)
- **Transaction ID**: navigate to CICS workspace **Transaction Details (KCPTRND)**.
- **Current Program ID**: navigate to CICS workspace **Program Details (KDPPRGD)**.
- **Task Number**: navigate to ICS workspace **Details for Transaction Task (KCPTASD)**.

**T Thread Detail SQL Text (KDPTSQLT)**

The SQL statement that a DB2 thread is currently executing.

**W Thread Detail Class 3 (KDPTHR3)**

The accounting class 3 wait times for a selected thread.

**X Multi-thread Cancel No Confirm**

Cancel multiple threads without being prompted individually to confirm each thread cancellation.

**Zoom-in from KDPCICS****R CICS RCT Summary for Region (KDPCICST)**

The CICS/DB2 Resource Control Table. This table shows the DB2 plan that is used for each CICS transaction.

**S CICS Thread Summary (KDPCICT1)**

CICS threads summary for a target CICS region.

**I IMS Connections (KDPIMS)**

KDPIMS provides an overview of the activity of each IMS region connected to DB2.

**Navigating to KDPIMS**

All Active DB2 Subsystems → I IMS Connections

**Zoom-in from KDPIMS****IMS Region Information (KDPIMSRG)**

Detailed status information for a specific IMS dependent region.

**J DB2 Connect Server (KDPCONN)**

KDPCONN displays key information about the active and inactive DB2 Connect gateways.

**Navigating to KDPCONN**

All Active DB2 Subsystems → J DB2 Connect Server

Zoom into, or select the corresponding tab to navigate to:

**K. Package statistics (KDPCPKG)**

Provides information about the size of the data exchanged between the DB2 Connect gateway and the host database and about the network time required. It enables you to measure the throughput between the host database and the DB2 Connect gateway and gives you a better idea of the database activity and network traffic at the application level.

**P. Performance (KDPCPERF)**

Displays the information obtained by running a sample SQL statement between the DB2 Connect gateway and the host database. It enables you to detect any bottlenecks.

**S. Gateway statistics (KDPCONNS)**

Statistics about the selected DB2 Connect gateway including details about the number of agents and pooled agents, the connections that are waiting for the host to reply, and the connections that are waiting for the client to send a request.

**T. Task list (KDPCTASK)**

Statistics about the processes at the selected DB2 Connect gateway, for example, the CPU and the working set. Use the information to determine whether the DB2 Connect gateway is overloaded by DB2 Connect or any other allocation application.

**H. History**

Near-term History provides the capability to investigate problems that occurred in the recent past.

## G DSNZPARMS (KDPZSYS)

---

KDPZSYS displays information about DSNZPARM parameters that are related to thread management. These parameters are defined on the DB2 panels DSNTIPE and DSNTIPE1.

### Navigating to KDPZSYS

All Active DB2 Subsystems → G DSNZPARMS

Select the corresponding tab to navigate to:

#### TRC (Trace Parameters KDPZTRC)

Parameters that are related to the trace. These parameters are defined on the DB2 panel, DSNTIPN.

#### LOG (Logging Parameters KDPZLOG)

Parameters that are related to the active log. These parameters are defined on the DB2 panel, DSNTIPL.

#### ARCH (Archiving Parameters KDPZARC)

Parameters that are related to log archiving. These parameters are defined on the DB2 panels DSNTIPA and DSNTIPH.

#### CNTL (Authorizaation/RLF/DDF parameters KDPZCTL)

Parameters that are related to operator functions. These parameters are defined on the DB2 panels DSNTIPO, DSNTIPP, DSNTIPP1, DSNTIPR and DSNTIP5.

#### IRLM (IRLM Parameters KDPZIRLM)

Parameters that are related to IRLM. These parameters are defined on the DB2 panels DSNTIPI and DSNTIPJ.

#### STG (Storage Parameters KDPZSTG)

DSNZPARM parameters that are related to storage and sizes. These parameters are defined on the DB2 panels DSNTIPC and DSNTIPD.

#### DSN (Dataset and Database parameters KDPZDSN)

Parameters that are related to datasets and databases. These parameters are defined on DB2 panels DSNTIP7, DSNTIP71, DSNTIP91, and DSNTIPS.

#### DDCS (Data Definition Control Parameters KDPZDDCS)

Parameters that are related to data. These parameters are defined on the DB2 panel DSNTIPZ.

#### DSG (Data Sharing Parameters KDPZDSG)

The parameters that are related to data sharing. These parameters are defined on the DB2 panel DSNTIPK.

#### SP (Stored Procedure Parameters KDPZSP)

DSNZPARM parameters that are related to Stored Procedures. These parameters are defined on the DB2 panel DSNTIPX.

#### UTIL (Utility Parameters KDPZUTIL)

DSNZPARM parameters that are related to utilities. These parameters are defined on DB2 the panels DSNTIP6, DSNTIP61, and DSNTIP62.

#### APP (Application Parameters KDPZAPPL)

Parameters that are related to applications. These parameters are defined on the DB2 panels DSNTIPF, DSNTIP4, and DSNTIP41.

#### DATA (Data Parameters KDPZDATA)

Parameters that are related to data. These parameters are defined on the DB2 panels DSNTIPA2, DSNTIPO3, and DSNTIPM.

#### PERF (Performance Parameters KDPZPERF)

Parameters that are related to performance and optimization. These parameters are defined on the DB2 panels DSNTIP8, DSNTIP81, and DSNTIP82.

#### BP (Buffer Pool Parameters KDPZBP)

Parameters that are related to the Default Buffer Pools. These parameters are defined on the DB2 panel DSNTIP1.

### **OTHERS (Other System Parameters KDPZOTH)**

Miscellaneous parameters that are defined on the DB2 panels DSN6SYSP, DSN6LOGP, DSN6ARVP, DSN6SPRM, DSN6FAC, and DSNHDECP.

### **ALL (DSNZPARM KDPZPARM)**

Parameters that are related to DSNZPARM.

## **Searching for DSNZPARM Parameters (KDPZFIND)**

To search for a DSNZPARM parameter:

1. At the command line, enter either:

- F
- FIND
- FINDM
- FINDMENU

The **Find DSNZPARM Parameters** (KDPZFIND) workspace is displayed.

2. Search for the parameter by field name or description.

## **K Key Performance Indicators Display (KDPKPI1)**

---

KDPKPI1 displays a summary of thread related Key Performance Indicators for a DB2 subsystem. It includes connections, transactions and locking Key Performance Indicators that help you quickly identify and resolve any performance issues. (Version 5.3.0 only)

### **Navigating to KDPKPI1**

All Active DB2 Subsystems → K Key Performance Indicators Display

Select the corresponding tabs to navigate to:

#### **Pools & Storage KPI (KDPKPI2)**

A summary of pool and storage related Key Performance Indicators for a DB2 subsystem. It includes DB2 pools, storage, buffer pools, sorting and group buffer pools Key Performance Indicators, which can help you quickly identify and resolve any performance issues. (Version 5.3.0 and higher).

#### **Miscellaneous KPI (KDPKPI3)**

Miscellaneous Key Performance Indicators for a DB2 subsystem. It includes monitoring, logging, stored procedures, user defined functions and query parallelism Key Performance Indicators, which can help you quickly identify and resolve any performance issues. (Version 5.3.0 and higher).

#### **System States (KDPKPI4)**

Key DB2 system and thread related performance data. This data includes thread, stored procedures, user defined functions, triggers, locks, and open datasets, which can help you quickly identify and resolve any performance issues.

### **Zoom-in from KDPKPI1**

Zoom-in to DBM1 and MVS Storage below 2GB (**KDPST02A**) from:

- **Avg Thread Footprint**

Zoom in to System Resource Manager (**KDPSUBSM**) from:

- **Transactions Per Second**
- **Indoubt-URs**
- **Resync attempted**

Zoom-in to Lock Conflicts (**KDPLKC2**) from:

- **Deadlocks**

- **Timeouts**
- **Lock Escalations**

### **Zoom-in from KDPKPI2**

Zoom-in to Storage Subsystems ([KDPST02A](#)) from:

- **EDM pool full**
- **ECSA used by DB2**
- **Real storage used by DB2**

Zoom-in to **Buffer Pools** ([KDPBP52](#)) from:

- **DM critical thresh reached**
- **DWQT reached**
- **Open DS thresh reached**
- **Pages read from Bps**
- **Pages read from DASD**
- **Migrated DS timed out**
- **Sort error BP shortage**
- **Merge error BP shortage**
- **Sort degraded BP too small**

Zoom-in to **Group Buffer Pools** ([KDPGPOOL](#)) from:

- **Write failed no storage**
- **Pages castout**
- **Class castout thresh reached**
- **GBP castout thresh reached**

### **Zoom-in from KDPKPI3**

Zoom-in to Log Manager ([KDPLOGS9](#)) from:

- **Tape volume contention**
- **Output buffer full**
- **Bytes written to log**
- **Resource unavailable**
- **No QP BP shortage**

## **L Locking Conflicts (KDPLKC2)**

---

KDPLKC2 displays the lock conflicts that exist for a DB2 subsystem.

### **Navigating to KDPLKC2**

All Active DB2 Subsystems → L Locking Conflicts

### **Zoom-in from KDPLKC2**

#### **Thread Locks Owned (KDPTHRL)**

Detailed information about the locks and the claims that are owned by an individual thread.

## M DB2 Messages (KDPMSGGS)

---

KDPMSGGS displays critical DB2 messages sorted by message identification number.

### Navigating to KDPMSGGS

All Active DB2 Subsystems → M DB2 Messages

### Zoom-in from KDPMSGGS

#### **S Critical DB2 Messages (KDPMSGC)**

Displays messages that can help you identify problems with your DB2 system.

#### **H History DB2 Messages (KDPMSGH)**

Display historical DB2 messages that can help you diagnose performance problems in the past.

## S System Statistics (KDPSUBSM)

---

KDPSUBSM shows an overview of workload-related information about the DB2 subsystem that you are monitoring.

### Navigating to KDPSUBSM

All Active DB2 Subsystems → S System Statistics

Select the corresponding tab to navigate to:

#### **BP (Buffer Pools KDPBP52)**

A summary of the buffer pools that are configured and are in use for a DB2 subsystem. A drill down to buffer pool details is available.

#### **Log (Log Management KDPLOGS9)**

An overview of the DB2 log manager active logging and archiving activity.

#### **EDM (EDM Pool KDPEDM2A)**

An overview of the Environmental Descriptor Manager (EDM) pool activity that is connected with DB2.

#### **SQL (SQL Count DML KDPSQL1)**

The SQL counts for the Data Manipulation Language (DML) for a DB2 subsystem. See [“Navigating from SQL Counts DML \(KDPSQL1\)”](#) on page 27.

#### **DSQL (DB2 Dynamic SQL Cache Filter Options KDPDSQLF)**

Filter options to manage the data returned from the Dynamic SQL cache especially when many rows are returned. The default filter option settings display the first 100 statements in descending order of the accumulated CPU time. The results are displayed in DB2 Dynamic SQL Cache Statement Statistics (KDPDSQLS), see [“Zoom-in from DB2 Dynamic SQL Cache Statement Statistics \(KDPDSQLS\)”](#) on page 28.

#### **SSQL (T Thread Detail SQL Text (KDPPSQLT) KDPSSQLS)**

A summary of the contents of the Static SQL cache so that you can determine their performance. See [“Zoom-in from T Thread Detail SQL Text \(KDPPSQLT\) \(KDPSSQLS\)”](#) on page 28.

#### **Accelerators (KDPACCN)**

Accelerator statistics for all configured accelerators. See [“Zoom-in from Accelerators \(KDPACCN\)”](#) on page 28.

#### **Storage (Storage Consumption KDPSTO2A)**

The DB2 subsystem storage consumption.

#### **ZOS Statistics (KDPZOS)**

Overall CPU usage, paging real and virtual storage usage by DB2.

#### **Lock Manager Information (Lok) KDPLOK1**

View current locking activity, latch statistics counters, and IRLM latch contention statistics. See [“Navigating from Lok - Lock Manager Information \(KDPLOK1\)”](#) on page 28.



## Navigating from BP (Buffer Pools KDPBP52)

Select the corresponding tab to navigate to:

### **Group Buffer Pools (KDPGPOOL)**

A list of active group buffer pools.

### **Global Buffer Pool (KDPGBPOL)**

A summary of active group buffer pools for this member of the data sharing group.

Zoom-in from KDPBP52 and KDPGBPOL:

### **S. Buffer Pool Details (KDPBPD52)**

The size and the usage of an individual DB2 buffer pool.

### **H History**

Near-term History provides the capability to investigate problems that occurred in the recent past.

Zoom in from KDPGPOOL:

### **A Sync Read \ GBP Write (KDPGBPSY)**

Sync reads, writes and the hit ratio of a group buffer pool.

### **B Prefetch \ Castout (KDPGBPPF)**

Prefetch information and castout information about a group buffer pool.

### **L P-Locks (KDPGBPLK)**

The P-Lock information for a group buffer pool.

### **S Secondary GBP (KDPGBPSC)**

The DB2 Group Buffer Pool secondary information.

### **H History**

Near-term History provides the capability to investigate problems that occurred in the recent past.

## Navigating from SQL Counts DML (KDPSQL1)

### **DCL (Data Control Language KDPSQL2)**

The system SQL counts for Data Control Language (DCL) for a DB2 subsystem.

### **DDL (Data Definition Language KDPSQL3)**

The system SQL counts for Data Definition Language (DDL) for a DB2 subsystem.

### **RID List Processing (KDPSQL4)**

The system SQL counts for Record Identifier (RID) List Processing for a DB2 subsystem.

### **PARAL (Query Parallelism KDPSQL5)**

The system SQL counts for Query Parallelism for a DB2 subsystem.

### **NESTED SQL (SQL Counts - SP/UDF/Triggers KDPSQL6)**

The system SQL counts for Stored Procedures, User Defined Functions, and Triggers for a DB2 subsystem.

### **PREP (SQL Counts - Prepares KDPSQL7)**

The system SQL counts for Prepares for a DB2 subsystem.

### **ROWID (Row ID KDPSQLD)**

The system SQL counts for Row ID access for a DB2 subsystem.

### **CON STMT (Concentrate Statements KDPSQL8)**

The system SQL counts for Concentrate Literals for a DB2 subsystem.

### **USE COMMITTED (User Currently Committed KDPSQLA)**

The system SQL counts for Use Committed for a DB2 subsystem.

### **WORKFILE (Workfile Storage KDPSQLB)**

The system SQL counts for work files for a DB2 subsystem.

**MISC (Miscellaneous KDPSQLE)**

The system miscellaneous SQL counts for a DB2 subsystem.

**Zoom-in from DB2 Dynamic SQL Cache Statement Statistics (KDPDSQLS)****S. Statistics (KDPDYNST)**

Displays the statistics for a statement in the Dynamic SQL cache.

**T. SQL Text (KDPDYNTX)**

Displays the SQL text of statements in the Dynamic SQL cache.

**Zoom-in from T Thread Detail SQL Text (KDPPSQLT) (KDPSSQLS)****S. Statistics (KDPSTAST)**

Displays the statistics for a statement in the Static SQL cache.

**T. SQL Text (KDPSTATX)**

Displays the SQL text of statement in the Static SQL cache.

**Zoom-in from Accelerators (KDPACCN)****Accelerator Perspective (KDPACC41)**

Accelerator statistics for a selected accelerator.

**DB2 Perspective (KDPACC42)**

Accelerator statistics for a selected DB2.

**Navigating from Storage (KDPSTO2A)****MVS (Storage Above 2 GB KDPSTA2A)**

The MVS Storage Above 2 GB workspace provides an overview of MVS storage above the 2 GB bar. It shows information about storage allocation within the DBM1 and DIST address space.

**Subsy Shr (Subsystem Shared Storage Above 2GB KDPSTO2B)**

The Subsy Shr workspace displays subsystem shared storage above 2 GB including real storage and auxiliary storage.

**Common (Common Storage Below and Above KDPSTC2A)**

The Common Storage workspace provides an overview of the common storage above and below the 2 GB bar.

**LPAR (MVS LPAR Shared Storage Above 2GB KDPSTOLA)**

The LPAR workspace provides an overview of MVS LPAR shared storage above 2 GB.

**Real Aux (Real and Auxiliary Storage KDPSTU2A)**

The Real Aux workspace provides an overview of real and auxiliary storage allocation within DBM1 and DIST address space.

**STMT (Shared Storage above 2GB KDPSTS2A)**

The STMT workspace provides an overview of DB2 subsystem shared storage and shared variable storage above 2 GB.

**IRLM (IRLM Storage KDPSTOIB)**

The IRLM workspace provides an overview of DB2 IRLM storage allocation including HWM and thresholds.

**Navigating from Lok - Lock Manager Information (KDPLOK1)****Lock Manager Information (LockMgr KDPLOK1)**

This panel shows current locking activity.

**Latch Counters (LatchCnt KDPLOK2)**

Each latch statistics counter is associated with a latch level. All latch counters are maintained by the Latch Manager.

**Secondary Latch Cont. Counters (IRLMCnt KDPLOK4)**

View IRLM latch contention counters in Db2 statistics trace.

**Global Lock Statistics (GlockCnt KDPLOK3)**

A summary of all locking activity in a data sharing group.

## H History

---

Use near-term history to investigate problems that occurred in the recent past.

"H History" in the enhanced 3270UI refers to the OMEGAMON Family history based on the persistent datastore (PDS).



---

## Chapter 6. Using thread history

OMEGAMON for DB2 thread history in the Enhanced 3270UI is the equivalent of near-term history in the Classic Interface.

Database administrators and systems analysts use thread history to analyze thread performance for recent DB2 application, system, and utility threads. Near-term history (Classic) and thread history (Enhanced 3270UI) data are stored in VSAM data sets. Thread history in the Enhanced 3270UI is approximately equivalent to "thread-related information" in the Classic Interface's near-term history.

An additional distinction is that thread history is different from a snapshot history. Thread history refers to completed thread activities, while snapshot history includes activities currently in progress.

For information on how to set up thread history collection, see [Configuring thread history](#).

Several configuration parameters are required in order to enable thread history in the Enhanced 3270UI. See [Parameters updated for thread history](#) for information on thread history configuration parameters. In addition, the HOLDDATA information for this PTF contains installation instructions and post-configuration steps required to enable thread history.

---

### Viewing thread history

This topic describes how to verify that the thread history data collector is running.

#### About this task

This task makes the following assumptions:

- Thread history data collector is running
- Tivoli Enterprise Monitoring Agent (TEMA) is running
- Tivoli Enterprise Monitoring Server (TEMS) is running
- Tivoli OMEGAMON Manager is running

#### Procedure

1. From the KOBSEVTS panel, which appears when you log in, select DB2. The active DB2 subsystems are displayed.
2. Enter R beside the name of the DB2 subsystem you want to verify. Press ENTER. If the thread history data collector is running for the DB2 subsystem you selected, the Thread History Selection panel (KDPHFIL1) is displayed. If the collector is not running, a message indicates that thread history is not active for DB2.

**Note:** The R option is also available from KOBSTART and KDPSTART.

---

### Filtering thread history by time ranges (timespan)

You can filter your thread history by time range, to identify threads with performance problems.

#### About this task

This task assumes the thread history data collector is running.

#### Procedure

1. From the **KOBSEVTS** panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
2. Enter R next to the DB2 subsystem you want to verify.

- From the **Timespan** tab, you can specify that you want to select threads from a span of time counting back from the present, such as (1) five minutes or (2) 100 hours. Or you can specify (3) a historical time range, with a start and end date and time. For example, you can select threads for a time range starting at 09:32:01 on 05/15/2017 and ending at 11:32:01 on 05/19/17. Set the Minute(s), Hour(s), or Time Range specification you want to use, then enter 1, 2, or 3 to the left, where 1 is entered in this example:

```
Timespan
KDPHFIL1      Thread History Timespan Selection
Select an action and then press ENTER

1  1. M Historical Last 005 Minute(s)
   2. H Historical Last 040 Hour(s)
   3. T Historical Time Range
      Time      Date
Start 14:21:51  02/20/2018 (HH:MM:SS MM/DD/YYYY)
End   14:26:51  02/20/2018 (HH:MM:SS MM/DD/YYYY)

                        OK  Clear  Cancel
```

- Select **OK**. The thread history summary is displayed.

## Filtering thread history by event counts and times

You can filter your thread history by event counts and times, to identify threads with performance problems.

### About this task

This task assumes the thread history data collector is running.

### Procedure

- From the KOBSEVTS panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
- Enter R next to the DB2 subsystem you want to verify.
- Select the **Counts/Times** tab. From this tab, you can specify that you want to select threads based on a range of system usage counts and CPU and database elapsed times. The supported operators are EQ (Equal), NE (Not Equal), LT (Less Than), LE (Less Equal), GT (Greater Than), GE (Greater Equal).
- When you have specified the counts and times you want to monitor, select **OK**. The thread history summary is displayed.

## Filtering thread history by thread IDs

You can filter your thread history by thread IDs, to identify threads with performance problems.

### About this task

This task assumes the thread history data collector is running.

### Procedure

- From the **KOBSEVTS** panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
- Enter R next to the DB2 subsystem you want to use.
- From the **Thread ID** tab, you can select threads by ID, using criteria such as Plan Name, Auth ID, Connect, Con Type, Correlation ID, CICS TX, and IMS PSB. Note that Correlation ID is case sensitive. You can use the EQ ("equal") or NE ("not equal") operators to specify that you want to

see results that match, or results that do not match, the string you enter. The question mark (?) wildcard can be used to represent one character in a string. For example, you might specify TS12?4 to see threads with Auth IDs such as TS1234 or TS1244.

The asterisk (\*) wildcard can be used to specify that you want to see any string. For example, you might specify OMPE\* to see threads with Auth IDs such as OMPEADMIN or OMPETEST. When you use the asterisk wildcard, any characters you enter after the asterisk will be ignored. For example, OMPE\*TEST would be treated the same as OMPE\*. You cannot use the asterisk at the beginning of a string, for example \*ABC. This would be treated as just a wildcard, with the ABC being ignored.

4. When you have specified the selection criteria you want to use, select **OK**. The thread history summary is displayed.

## Filtering thread history by end user

---

You can filter your thread history by end user, workstation, transaction, role, trusted context, or accounting string, from the End User tab.

### About this task

This task assumes the thread history data collector is running.

### Procedure

1. From the **KOBSEVTS** panel, which appears when you log in, select DB2. This displays the active DB2 subsystems.
2. From **KOBSTART** or **KDPSTART**, enter R next to the DB2 subsystem you want to use.
3. Select the End User tab. From this tab, you can specify that you want to select threads based on any of several case sensitive criteria:
  - End User ID (up to 56 bytes)
  - Workstation name (up to 56 bytes)
  - Transaction Name (up to 56 bytes)
  - Role Name (up to 56 bytes if running in a trusted context)
  - Trusted Context (up to 56 bytes if running in a trusted context)
  - Accounting String: up to 56 bytes for the agent. For DSN type, it is the first 56 bytes of QMDAACCT. For JCC/SQL types, it is the first 56 bytes of QMDASUFEX. For other types, it is the first 56 bytes of AMDAASTR.

You can use the EQ ("equal") or NE ("not equal") operators to specify that you want to see results that match, or results that do not match, the string you enter. The question mark (?) wildcard can be used to represent one character in a string. For example, you might specify John?Smith to see threads with End User IDs such as JohnBSmith or JohnQSmith.

The asterisk (\*) wildcard can be used to specify that you want to see any string. For example, you might specify John\* to see threads with End User IDs such as JohnSmith or JohnJones. When you use the asterisk wildcard, any characters you enter after the asterisk will be ignored. For example, John\*Smith would be treated the same as John\*.

4. When you have specified the selection criteria you want to use, select **OK**. The thread history summary is displayed.

## Viewing summary of all selected history threads

---

You can view a list of threads that meet your selection criteria.

### About this task

This task assumes the thread history collector is running and you have identified one or more selection criteria you want to use to identify current or recent threads that may have performance problems.

For information on how to specify the criteria, see [Using thread history](#).

Once you have specified the criteria, the thread summary is displayed. The summary shows columns of information that identify the workstation, transaction, user, usage, and other characteristics you can use to determine which threads need attention to improve system performance.

## Viewing thread history detail accounting

---

The thread history accounting detail helps you diagnose performance problems.

### About this task

This task assumes the thread history collector is running and you have identified one or more selection criteria you want to use to identify current or recent threads that may have performance problems.

For information on how to specify the criteria, see [Using thread history](#).

### Procedure

1. In the Thread History Summary, select the thread you want accounting detail on, by typing S next to it and pressing ENTER. The **DB2 Thread History Detail Accounting** panel is displayed.
2. The Accounting (Acct) and Class3 tabs present information about the thread, which you can use to diagnose performance problems.

## Viewing thread history wait times

---

The Class 3 Wait Times information helps you diagnose performance problems.

### About this task

This task assumes the thread history collector is running and you have identified one or more selection criteria you want to use to identify current or recent threads that may have performance problems.

For information on how to specify the criteria, see [Using thread history](#).

### Procedure

1. From the **Thread History Summary**, select the thread you want accounting detail on, by entering W next to it and pressing ENTER. The **DB2 Thread History Detail Wait Times** panel is displayed.
2. Examine the information in the Class 3 tab to diagnose performance problems.

## Configuring thread history

---

Several parameters are required to configure PARMGEN.

### About this task

For information about PARMGEN, see the [Implementation scenarios](#) in the IBM Knowledge Center.



## Procedure

1. Log into PARMGEN.
2. Use the instructions in the "Customizing the configuration profiles" step in the implementation scenario to edit the LPAR RTE configuration profile in the RTE's %RTE\_HILEV%.%RTE\_NAME% dataset and enable the following thread history parameters:
  - Verify that KD2\_PFn\_HIS\_START is set to Y.
  - Set KD2\_PFn\_HIS\_STORE to the value that includes THVSAM. If other options (for example, VSAM, SEQ) are included, make sure to set the dependent parameters such as KD2\_PFn\_HIS\_LOGn.
3. Set the following parameters to YES:
  - KD2\_PFn\_THRDHIS\_LOG\_NUM
  - KD2\_PFn\_THRDHIS\_DYN\_SQL
  - KD2\_PFn\_THRDHIS\_LOCK\_CNTN
  - KD2\_PFn\_THRDHIS\_LOCK\_SUSP
  - KD2\_PFn\_THRDHIS\_SCAN\_SUMM
  - KD2\_PFn\_THRDHIS\_SORT\_SUMM

**Note:** These parameters can be configured in PARMGEN, but they are not yet implemented for use with thread history in the Enhanced 3270UI.
4. Run the PARMGEN \$PARSE and SUBMIT steps. The jobs that need to run will depend on your SMP/E maintenance and upgrade scenario. For example, you might just need to run the KCIJPW2R job, or you might need to run allocation jobs such as ALLOCDS, TCRV&dbid, and/or HCRV&dbid. Consult the IBM Knowledge Center page on [SMP/E maintenance and upgrade scenarios](#).
5. Verify that the COPT&dbid file is generated correctly. Check that the THRD parameters are set according to the values you set in KD2\_PFn\_THRDHIS\_\* in PARMGEN:

```
THRDLOG(7)
THRDDATASET(D010MPE.VTS5815.DBA9.RKTH*)
THRDSQL(YES)
THRDCONT(YES)
THRDSUSP(YES)
THRDSCAN(YES)
THRDSORT(YES)
```

6. Verify that all data sets mentioned in COPT&dbid member have been generated.

## Thread history parameters

New PARMGEN parameters have been added, and existing parameters have new defaults or have been updated, for use with thread history. See the *Parameter Reference* for further information.

## Setting new PARMGEN parameters

### About this task

You can change the new PARMGEN parameters, then refresh the profile so your new settings take effect. Follow these steps to make changes:

### Procedure

1. Log into PARMGEN.
2. Create a new runtime environment.
3. Check the profile to make sure these parameters are set to their default values, as indicated:

KD2\_PFn\_HIS\_VSAM\_SU = MB

```
KD2_PFnHIS_VSAM_MB = 900
KD2_PFnHIS_ACCTG_CLASS = 1
KD2_PFnHIS_THRDHIS_DYN_SQL = N
KD2_PFnHIS_LOCK_CNTN = N
```

4. Verify that KD2\_PFnHIS\_START is set to Y.
5. Run the PARMGEN \$PARSE and SUBMIT steps. Note that the SUBMIT step may fail if there is insufficient free space. SUBMIT will try to allocate VSAM data sets of 900 MB each.
6. Verify that all VSAM data sets mentioned in the COPTxxxx member are generated and that they have the length you specified. If the SUBMIT job failed, verify that the \*\*.WKD2SAM (ALLOCD) member, which is used for dataset allocation, has 900 MB.

## Saving disk space if thread history is not in use

---

If you don't need thread history, there are several ways you can save disk resources by disabling collection and storage of unnecessary data.

### About this task

You can disable near term history data collection, sequential data collection, or Enhanced 3270UI thread history collection to save disk space.

By default, the thread history parameter (KD2\_PFnHIS\_START) is set to N. In such a case, the WRITEOPTION parameter is set to NONE and no data sets are allocated. If you change KD2\_PFnHIS\_START to Y, the WRITEOPTION parameter is set to VSAM, SEQ, THVSAM, or any combination of these, based on the value of the KD2\_PFnHIS\_STORE parameter. Corresponding data sets will be allocated as well.

**Note:** These space-saving steps will work only for new runtime environments (RTEs), as PARMGEN does not delete any thread history data sets allocated earlier.

If you are a new PARMGEN user, see [Implementation scenarios](#) in the OMEGAMON shared publications. This will explain how to use PARMGEN to configure OMEGAMON for DB2. The steps that follow assume that you have some knowledge of PARMGEN.

### Procedure

1. Log into PARMGEN.
2. Create a new runtime environment (RTE).
3. Set the KD2\_PFnHIS\_STORE parameter to, for example, THVSAM.
4. Set the KD2\_PFnHIS\_START parameter to Y.
5. Update dependent parameters: data set number, since you selected the THVSAM option.
6. Run the \$PARSE and SUBMIT steps in PARMGEN. The jobs that need to be run will depend on your SMP/E maintenance and upgrade scenario. For example, you may just need to run the KCIJPW2R job, or you may need to run allocation jobs such as ALLOCD, TCRV&dbid, and HCRV&dbid. Consult the IBM Knowledge Center topic [SMP/E maintenance and upgrade scenarios](#) for more information.
7. Verify that the COPT&dbid file has been generated correctly.
8. Verify that all data sets mentioned in the COPT&dbid member have been generated.

## Thread history parameters example

This code sample shows the thread history parameters fully configured.

### Thread history parameters

```
* *****
*
* OMEGAMON for DB2 PE Thread history data collector options for
* Classic & OMEGAMON enhanced 3270 user interface (TOM) thread history
* Notes:
* 1. OMEGAMON enhanced 3270UI thread history applies to V5.3.0 and
*    higher versions only.
*    Your OMEGAMON for DB2 PE/PM version installed is:
*    - FMID HKDB530
* 2. COPTDBA9 NTH collector options only apply if the NTH enablement
*    flag is set (KD2_PFnHIS_START = "Y")
*    Your NTH enablement flag is set to:
*    - KD2_PF01_HIS_START = "Y"
* *****
*
DB2SYS(DBA9)
*
* For both OMEGAMON enhanced 3270UI and Classic NTH options:
* Note: WRITEOPTION(VSAM,SEQ,THVSAM) options (or a variation of any of
*       these NTH storage options) are generated based on your
*       KD2_PF01_HIS_STORE setting. If KD2_PF01_HIS_START
*       = "N" (NTH collection is not enabled), WRITEOPTION defaults to
*       WRITEOPTION(NONE)
WRITEOPTION(VSAM,SEQ,THVSAM)
*
* For OMEGAMON Enhanced 3270UI thread history options:
* THRD* parameters are applicable to V5.3.0 and higher versions.
* Your OMEGAMON for DB2 PE/PM on z/OS version installed is:
* - FMID HKDB530
* *****
THRDLOG(7)
THRDDATASET(
  D010MPE.VTS5815.DBA9.RKTH*
)
THRDSQL(YES)
THRDCONT(YES)
THRDSUSP(YES)
THRDSCAN(YES)
THRDSORT(YES)
*
* For both OMEGAMON enhanced 3270UI and Classic NTH options:
ACCTG(1 2 3 7 8 10)
*AUTH()
*PLAN()
*CONN()
*CORR()
*ORIGAUTH()
*
* For Classic NTH options:
BUFSIZE(2048)
IFIREADTIME(010000)
INTERVAL(15)
NTAINTERVAL(5)
SUSPCOLL(YES)
POSTPCT(70)
*
STATISTICS(YES)
SCAN(NO)
SORT(NO)
*
DYNAMICSQL(NO)
LOCKCONT(NO)
LOCKSUSP(NO)
NEGSQL(NO)
*
* For Classic NTH options:
H2DATASET(
  D010MPE.VTS5815.QA530.DBA9.RKD2VS01
  D010MPE.VTS5815.QA530.DBA9.RKD2VS02
  D010MPE.VTS5815.QA530.DBA9.RKD2VS03
  D010MPE.VTS5815.QA530.DBA9.RKD2VS04
  D010MPE.VTS5815.QA530.DBA9.RKD2VS05
```

```

D010MPE.VTS5815.QA530.DBA9.RKD2VS06
D010MPE.VTS5815.QA530.DBA9.RKD2VS07
* *****
* MEMBER: KD2$PCOP
* Purpose:
*   WCONFIG(KD2$PCOP) to identify additional H2DATASET()
*   in WKD2PAR(COPT&dbid) OMEGAMON for DB2 Classic NTH history.
* Instructions:
*   1. Add your additional H2DATASET() VSAM entries
*      D010MPE.VTS5815.QA530.DBA9.RKD2VSnn
*      (where nn = 08..60)
*      if you need more than 7 VSAMs as specified in the PARMGEN LPAR
*      RTE WCONFIG(QA530) profile's "KD2_PF01_HIS_LOGn" parameter.
*      Note: Do not modify "DBA9" as this imbed will be used for each
*            DB2-specific COPT&dbid NTH collector options member.
*
*      WCONFIG(KD2$PCOP) is imbedded in the WKD2PRF(COPT&dbid) member
*      by $PARSE* "Create runtime members and job" (via spawned job
*      KD2JPCR8 job or KD2JPUPC job or standalone xKD2PRF(CRTDB2M*) job)
*      Placeholder examples have been provided for modeling. Uncomment
*      out the parameter and customize accordingly.
*   2. To allocate the additional RKD2VSnn VSAMs, use the tailored
*      HCRV&dbid standalone RKD2VSnn allocation job in the
*      RTE's RKD2SAM dataset.
* *****
* USER SECTION: IMBED FOR MEMBER WKD2PRF(COPT&dbid)
* *****
* ----- BEGIN - USER SECTION: OVERRIDE ----- *
*D010MPE.VTS5815.QA530.DBA9.RKD2VS08
*D010MPE.VTS5815.QA530.DBA9.RKD2VS60
* ----- END - USER SECTION: OVERRIDE ----- *
)
SEQDATASET(
  D010MPE.VTS5815.QA530.TESTS(+1)
)
SPACE(CYL,10,2)

```

## Adding Thread History Datasets

This topic discusses thread history datasets in OMEGAMON for Db2 on z/OS Performance Expert (OMPE) and explains how you can increase the number of datasets. The key is that you must restart the OMPE collector in order for new datasets to be recognized.

When you run OMPE with system substitution variables, a KCIPARSE step will run the next time OMPE starts. If you make changes to the permanent RKD2PAR file, the changes are not picked up until the next time KCIPARSE is run, which will happen when you start the OMPE collector.

The KCIPARSE step creates temporary files that are copies of the runtime files, but with substitutions made. The RKD2PAR file located where the COPT members are is copied to a temporary dataset. OMPE then runs from that temporary file; for example:

```

//KAND2PU DD DISP=SHR,
//DSN=&USERD2PU
//TMPD2PU DD DISP=(,PASS),DSN=&&TMPD2PU,DSNTYPE=(LIBRARY,1),
//UNIT=SYSDA,SPACE=(CYL,(5,5,440)),
//DCB=(RECFM=FB,LRECL=80,BLKSIZE=8880)

```

These startup messages show the RKD2PAR file as a temporary file:

```

K02Z056I OM02 V540 01-RKANPAR VOL=WKP100 DSN=SYS18283.T192035.RA000.OMPEPK3S.TMPPARU.H04
K02Z056I OM02 V540 02-RKANPAR VOL=WKP104 DSN=SYS18283.T192035.RA000.OMPEPK3S.TMPD2PU.H04

```

If you change the permanent RKD2PAR file, the change is not recognized until the next time KCIPARSE is run, when OMPE starts.

The only way to avoid this behavior is not to perform system variable substitution for the RKD2PAR dataset. In the OMPE Startup JCL, the following DSN names would have to be changed to the original names (not the temporary names):

```

//RKANPAR DD DISP=(OLD,PASS),
//DSN=*.KCIPARSE.TMPPARU

```

```
//DD DISP=(OLD,PASS),  
//DSN=*.KCIPARSE.TMPD2PU
```

## Accessing information about buffer pool performance

You can review buffer pool information (such as getpages and buffer pool hit ratios), to evaluate how well a thread is performing and to determine if excessive I/O is being consumed for a thread.

### About this task

**Note:** You can access information about buffer pool performance from either Db2 Active Threads or Thread History.

### Procedure

1. To access information about buffer pool performance from Db2 Active Threads:
  - a) From the OMEGAMON main menu, select the **DB2** tab (KOBSDB2).
  - b) In the entry field next to the appropriate Db2 subsystem, type T to access **Db2 Active Threads** panel (KDPTH52).
  - c) In the entry field next to the appropriate active thread:
    - Type B and press enter to access the **Db2 Thread Detail Buffer Pool** panel (KDPTHDBP). In the **Buffer Pools** section, type S next to the buffer pool of interest to access the **DB2 Thread Detail Buffer Pool** panel (KDPTHDBD).
    - Type G and press enter to access the **Db2 Thread Detail Group Buffer Pool** panel (KDPTHGBP). In the **Group Buffer Pools** section, type S next to the buffer pool of interest to access the **DB2 Thread Detail Group Buffer Pool** panel (KDPTHGBD).
2. To access information about buffer pool performance from Thread History:
  - a) From the OMEGAMON main menu, select the **DB2** tab (KOBSDB2).
  - b) In the entry field next to the appropriate DB2 subsystem, type R.
  - c) On the **Thread History Timespan Selection** panel (KDPHFIL1), specify the appropriate selection criteria and click **OK**.
  - d) On the **Thread History Summary** panel (KDPHISTL) panel:
    - Type B and press enter to access the **DB2 Thread History Detail Buffer Pools > BP** tab (KDPHBP). In the **Buffer Pools** section, type S next to the buffer pool of interest to access the **DB2 Thread History Detail Buffer Pool** panel (KDPHBPD).
    - Type G and press enter to access the **Db2 Thread History Detail Buffer Pools > GBP** tab (KDPHGBP). In the **Group Buffer Pools** section, type S next to the buffer pool of interest to access the **DB2 Thread History Detail Buffer Pool** panel (KDPHGBPD).



---

## Chapter 7. About Anomaly Detection

In performance monitoring, you can place thresholds on metrics to determine if a Db2 thread is using an excessive amount of resources. For example, you might set up thresholds on metrics such as CPU time, Elapsed Time, and Get Pages. The problem with setting such thresholds though is how do you determine what is normal and what is truly an error that needs attention.

For a CICS transaction to use less than 5 seconds of Db2 Elapsed time and setting a threshold to detect larger values makes sense. But what about a batch program? Its CPU Time, Elapsed Time and Get Pages will probably be much larger. You want to trigger an exception if a specific CICS transaction is running too long, but you do not want an exception condition to trigger for a batch program that is expected to run for a long time.

This is where machine learning and artificial intelligence for Anomaly Detection is valuable. Machine learning and artificial intelligence mean that OMEGAMON for Db2 Performance Expert has an initial learning period where metrics of thread executions grouped by specific Thread Identity fields are recorded.

Once the initial learning period is complete then Db2 threads that match the execution group are measured against previously learned metrics to look for anomalies. An anomaly is a thread that is outside the learned range by greater than the tolerance value. Learning continues if the value is within a reasonable range based on the discard tolerance value.

---

### Starting Anomaly Detection

After setting the required parameters for Anomaly Detection the persistent data store (PDS) collector for the anomalies attribute group must be started in the Enhanced 3270 UI.

#### Procedure

1. From the Enhanced 3270 UI, select **View > History Configuration**.
2. Select **OMEGAMON XE for DB2 PE and PM on z/OS** and scroll down to **DB2 Anomaly**.
3. Configure the Historical Collection for Db2 Anomaly.
  - a) On the **General** tab, specify a **Collection Name** and select the appropriate **Interval**.
  - b) On the **Distribution** tab, set the appropriate **distribution**.
  - c) Click the **General** tab.
  - d) Click **OK**.

The following message is displayed: The collection was successfully created and distributed.

---

### Detecting anomalies

When Anomaly Detection starts, it begins its learning phase. If for example, we have configured to use correlation ID for grouping, 100 occurrences of a CICS transaction (based on correlation id) would establish the average CPU, Elapsed and Get Page for that transaction. For example, 3 seconds average and 2 second standard deviation for elapsed time, .000005 average for CPU seconds and 100 average for get pages. If after the first 100 occurrences, if a transaction had an elapsed time of 14 seconds, this is more than 5 standard deviation away from the mean (5 being the tolerance), it would be reported as an elapsed time Anomaly.

## Procedure

1. From the Enhanced 3270 UI, you can set the range of historical data you want to see (the default is two hours). Selecting **Edit > Preferences** and select the **History** tab where you can then change the range of data displayed for history.
2. From the Db2 main menu, select **A** to view any anomalies within the range selected.
3. Select **S** to show more details for the thread that triggered an anomaly.

## Results

Using machine learning and artificial intelligence allows us to set smart thresholds based on what we have learned from experience. This reduces the number of false-positives where threads are flagged for exceeding a threshold but are not truly an error. In this way, we can concentrate performance tuning efforts to the specific threads that are causing performance problems.






## Chapter 8. User interface icons and PF keys

Reference of PF keys and icons.

### Icons

The enhanced 3270UI displays many different "icons" that perform various functions. Icons are typically displayed in reverse video white, which indicates an action occurs when you place your cursor on the icon and press Enter (or double-click if your emulator is configured to do so).

*Table 1. Subpanel manipulation icons*

Icon	Name	Description
v	Collapse	Displays the header of the subpanel and no data
>	Expand	Displays the entire subpanel with data
_	Minimize	Places the subpanel into the workspace footer
	Maximize	Causes the subpanel to occupy the full screen
	Normalize	Causes the subpanel to return from maximum size to normal size
	Close	Removes the subpanel from the workspace
←	Left arrow	Scrolls data to the left
→	Right arrow	Scrolls data to the right
↑	Up arrow	Scrolls data up
↓	Down arrow	Scrolls data down
▼▲	Sort	Denotes a column is sortable ascending/descending
◊	Static	Denotes a column is laterally non-scrollable

*Table 2. Workspace operation icons*

Icon	Name	Description
MORE	More	Indicates that more subpanels exist above or below.
CANCEL	Cancel	Exits current workspace/popup without changes.
OK	OK	Confirms a change, effective for current session only.
SAVE	Save	Saves a change, persisted across session logoff/logon.
EXIT	Exit	Confirms you would like to proceed to the next panel.

*Table 3. Application navigation icons*

Icon	Name	Description
«	Open drawer	Reveals the Application Navigation Drawer, which displays more icons that you can use to navigate or display administrative workspaces
»	Close drawer	Closes the Application Navigation Drawer

Table 3. Application navigation icons (continued)		
Icon	Name	Description
HUB	Hub	Goes to the Hub Connectivity Administration workspace
RTE	RTE	Goes to the Runtime Environment workspace
NAV	Navigate	Opens a product navigation area in the footer area. The icons that you see represent OMEGAMON products that are installed and available to be invoked.

## PF keys

The following Standard PF keys are defined.

**Note:** PF keys are not customizable.

Table 4. PF keys	
PF key	Description
PF1	Provides help for column headings.
PF2	Reserved for future use.
PF3	Returns you to a previous workspace, or exits a popup.
PF4	Displays a list of filters for a workspace, if defined.
PF5	Find string in a PDS member.
PF6	Reserved for future use.
PF7	Scrolls a workspace or subpanel up.
PF8	Scrolls a workspace or subpanel down.
PF9	Displays the Product Navigation Array.
PF10	Scrolls a workspace or subpanel left.
PF11	Scrolls a workspace or subpanel right.
PF12	Retrieves previously entered command(s).

## Associating a mouse click with the Enter key

If your emulator supports the option to associate a mouse click with the Enter key, you can use this feature to "double-click" where you normally "click and press Enter." Consult your emulator's documentation for details about how to enable this feature.

## Chapter 9. Enabling historical data collection

The enhanced 3270UI is designed for investigation of current problems or those that have occurred in the recent past.

Therefore, near-term history data can be displayed in the enhanced 3270UI workspaces. The Near-term history supports DB2 statistics, DSNZPARM, DB2 critical messages, DB2 connect server and object analysis.

Each workspace consists of one or multiple attribute groups. The history collection for the corresponding attribute groups must be started in order to see the history data in a workspace. Attribute groups that you need to enable historical collection for the workspaces are in [Table 5 on page 45](#) and [Table 6 on page 45](#):

*Table 5. Workspace and attribute group cross reference for history collection for DB2 Subsystems.*

For example, if you want to view the Group Buffer Pools history, you must start history collection for attribute group **DB2 Group Coupling Facility**, and **DSG\_GBP\_Pool**. Later, if you also want to see **Global Buffer Pools** history, then you start history collection for attribute group **DSG\_GBP\_CF\_Status**.

Workspace	Attribute group
DB2 Main Screen All Active DB2 Data Sharing Groups	DB2 Group Coupling Facility
Group Buffer Pools	DSG_GBP_Pool
Global Buffer Pools	DSG_GBP_CF_Status
Coupling Facility Details	DB2 Group Coupling Facility
Group Object Analysis	Group Object Analysis Group Object Spacename
Group Object Analysis Volume	GOA Volume Summary GOA Volume Database Summary
Group Object Analysis Database Activity	Group Object Activity Summary
DSG DSNZPARMs	DSG DSNZPARMs
DSG SQL Counts	DSG SQL Count

*Table 6. Workspace and attribute group cross reference for history collection for DB2 Subsystems.*

For example, if you want to see Subsystem Management history, you must start history collection for attribute group **DB2 System Status**, **DB2 SRM Subsystem Statistics** and **DB2 SRM Subsystem**. Later if you also want to see Group Buffer Pools history, then you start history collection for attribute group **DB2 GBP Pool**.

Workspace	Attribute group
Enterprise summary All Active DB2 Subsystems DB2 Main Screen All Active DB2 Subsystems	DB2 System Status

*Table 6. Workspace and attribute group cross reference for history collection for DB2 Subsystems.*

For example, if you want to see Subsystem Management history, you must start history collection for attribute group **DB2 System Status**, **DB2 SRM Subsystem Statistics** and **DB2 SRM Subsystem**. Later if you also want to see Group Buffer Pools history, then you start history collection for attribute group **DB2 GBP Pool**.

(continued)

Workspace	Attribute group
Key Performance Indicators	DB2 System Status DB2_Memory DB2_Memory_DBM1_DIST
Subsystem Management	DB2 SRM Subsystem Statistics DB2 SRM Subsystem
Log Management	LOG Stats ( DB2 Version 11) DB2 SRM Log Statistics DB2 SRM Log Manager
EDM Pool	EDM Pool Statistics (DB2 Version 11) EDM STATS (DB2 Version 11) DB2 SRM EDM Statistics EDM POOL
Buffer Pools	DB2 BP Statistics (DB2 v12) DB2 BP Attributes (DB2 v12) DB2 SRM BPM DB2 SRM BPD
Group Buffer Pools	DB2 GBP Pool
Global Buffer Pools	DB2 GBP CF Stats
DB2 Connect Server	DB2 CONNECT TASKLIST DB2 CONNECT PACKAGE DB2 CONNECT SERVER
Storage Consumption	DB2 Memory DBM1 DIST DB2 Memory MVS™ Storage
DSNZPARMs	DB2 Parameters
System SQL Counts	Stat SQL Count SQL COUNTER
z/OS System Statistics	ZOS System Statistics
Accelerators	Accelerator Statistics
Lock Statistics	Lock Statistics
DB2 Message	DB2 Message

## Chapter 10. Workspace names and descriptions

Enabling historical data collectionFor reference, the following table lists the OMEGAMON XE for DB2 on z/OS workspaces that display in the enhanced 3270UI.

Table 7. enhanced 3270UI workspace names and descriptions

Workspace Name	Panel Identification (ID)	Workspace Content
Accelerator Selection	KDPACCN	Accelerator statistics for all configured accelerators. See <a href="#">“Zoom-in from Accelerators (KDPACCN)”</a> on page 28.
Accelerator Statistics for a Selected Accelerator	KDPACC41	Accelerator statistics for a selected accelerator.
Accelerator Statistics for a Selected DB2	KDPACC42	Accelerator statistics for a selected DB2.
Active Threads	KDPTHD52	A global view of thread activity for a specific DB2 subsystem. It provides key performance data such as CPU rate, in-DB2 time, wait time, DB2 status, getpage, commits and updates that help you to identify any potential problem.
All Active DB2 Subsystems	KOBSTART	A list of the DB2 subsystems that are active in your enterprise system. It shows the general state and health of the active DB2 subsystems. This is the starting point for troubleshooting.
Buffer Pool Detail	KDPBPDTL	The size and the usage of an individual DB2 buffer pool.
Buffer Pool Details	KDPBPD52	The size and the usage of an individual DB2 buffer pool.
Buffer Pools	KDPBP52	A summary of the buffer pools that are configured and are in use for a DB2 subsystem. A drill down to buffer pool details is available.
Cancel Thread results	KDPTCAN2	The results from the cancel thread command that was issued. Version 5.2.0.
CICS	KDPTHCIS	Displays a CICS thread summary.
CICS RCT Summary for Region	KDPCICST	The CICS/DB2 Resource Control Table. This table shows the DB2 plan that is used for each CICS transaction.
CICS Threads	KDPCICTH	Provides an overview of DB2 thread activity that originate from connected CICS regions. It provides key performance data such as CPU rate, in-DB2 time, wait time, DB2 status, getpage, commits and updates that help you to spot any potential problem.
CICS Thread Summary	KDPCICT1	CICS threads summary for a target CICS region.
Common storage below and above the 2 GB bar.	KDPSTC2A	The Common Storage workspace provides an overview of the common storage above and below the 2 GB bar.
Coupling Facility Connections	KDPXCFD	Connection status information for all connections to a coupling facility structure. See <a href="#">“X Coupling Facility Details (KDPXCFD)”</a> on page 17.
Critical DB2 Messages	KDPMSGC	Displays messages that can help you identify problems with your DB2 system.

Table 7. enhanced 3270UI workspace names and descriptions (continued)

Workspace Name	Panel Identification (ID)	Workspace Content
Critical DB2 Messages by Message ID	KDPMSGS	Critical DB2 messages sorted by message identification number.
Data Sharing Group Lock Conflicts	KDPGLKGN	The lock conflicts that exist in a data sharing group. See <a href="#">“L Group Lock Conflicts (KDPGLKGN)”</a> on page 12.
Data Sharing Thread Activity	KDPPTHRD	Provides a global view of thread activity for an entire data sharing group.  With this information, you can identify all active application threads and track thread activity over a period of time. You can use the thread data to monitor critical application threads and to evaluate the thread elapsed times and the wait times for critical threads. You can also observe thread activity for threads within the same system, group, and member.
Data Sharing Thread Statistics	KDPPTHDS	Thread statistics for a specific application thread. If the application thread is a parallel thread, the table view displays thread statistics for all the associated parallel threads.  With this information, you can investigate a thread that consumed excessive elapsed time.
DB2 All DSNZPARM	KDPZPARM	Parameters that are related to DSNZPARM.
DB2 Buffer Pools	KDPBPOOL	A list of active group buffer pools.
DB2 CICS Connections	KDPCICS	An overview of DB2 thread activity that is originating from connected CICS subsystems. Information about the CICS regions that are attached to DB2.
DB2 Connect/Gateway Statistics	KDPCONNS	Statistics about the selected DB2 Connect gateway including details about the number of agents and pooled agents, the connections that are waiting for the host to reply, and the connections that are waiting for the client to send a request.
DB2 Connect Performance	KDPCPERF	Displays the information obtained by running a sample SQL statement between the DB2 Connect gateway and the host database. It enables you to detect any bottlenecks.
DB2 Connect Server	KDPCONN	Key information about the active and the inactive DB2 Connect gateways.
DB2 Connect Tasks List	KDPCTASK	Statistics about the processes at the selected DB2 Connect gateway, for example, the CPU and the working set. Use the information to determine whether the DB2 Connect gateway is overloaded by DB2 Connect or any other allocation application.
DB2 DSNZPARM Active Log Parameters	KDPZLOG	Parameters that are related to the active log. These parameters are defined on the DB2 panel, DSNTIPL.
DB2 DSNZPARM Application Parameters	KDPZAPPL	Parameters that are related to applications. These parameters are defined on the DB2 panels DSNTIPF, DSNTIP4, and DSNTIP41.
DB2 DSNZPARM Archive Log Parameters	KDPZARC	Parameters that are related to log archiving. These parameters are defined on the DB2 panels DSNTIPA and DSNTIPH.

<i>Table 7. enhanced 3270UI workspace names and descriptions (continued)</i>		
<b>Workspace Name</b>	<b>Panel Identification (ID)</b>	<b>Workspace Content</b>
DB2 DSNZPARM Data Definition Control Parameters	KDPZDDCS	Parameters that are related to data. These parameters are defined on the DB2 panel DSNTIPZ.
DB2 DSNZPARM Data Parameters	KDPZDATA	Parameters that are related to data. These parameters are defined on the DB2 panels DSNTIPA2, DSNTIPO3, and DSNTIPM.
DB2 DSNZPARM Dataset and Database Parameters	KDPZDSN	Parameters that are related to datasets and databases. These parameters are defined on DB2 panels DSNTIP7, DSNTIP71, DSNTIP91, and DSNTIPS.
DB2 DSNZPARM Data Sharing Parameters	KDPZDSG	The parameters that are related to data sharing. These parameters are defined on the DB2 panel DSNTIPK.
DB2 DSNZPARM Default Buffer Pool Parameters	KDPZBP	Parameters that are related to the Default Buffer Pools. These parameters are defined on the DB2 panel DSNTIP1.
DB2 DSNZPARM IRLM Parameters	KDPZIRLM	Parameters that are related to IRLM. These parameters are defined on the DB2 panels DSNTIPI and DSNTIPJ.
DB2 DSNZPARM Operator Functions Parameters	KDPZCTL	Parameters that are related to operator functions. These parameters are defined on the DB2 panels DSNTIPO, DSNTIPP, DSNTIPP1, DSNTIPR and DSNTIP5.
DB2 DSNZPARM Other Parameters	KDPZOTH	Miscellaneous parameters that are defined on the DB2 panels DSN6SYSP, DSN6LOGP, DSN6ARVP, DSN6SPRM, DSN6FAC, and DSNHDECP.
DB2 DSNZPARM Performance and Optimization	KDPZPERF	Parameters that are related to performance and optimization. These parameters are defined on the DB2 panels DSNTIP8, DSNTIP81, and DSNTIP82.
DB2 DSNZPARM Storage and sizes	KDPZSTG	DSNZPARM parameters that are related to storage and sizes. These parameters are defined on the DB2 panels DSNTIPC and DSNTIPD.
DB2 DSNZPARM Stored Procedure	KDPZSP	DSNZPARM parameters that are related to Stored Procedures. These parameters are defined on the DB2 panel DSNTIPX.
DB2 DSNZPARM Thread Management	KDPZSYS	DSNZPARM parameters that are related to thread management. These parameters are defined on the DB2 panels DSNTIPE and DSNTIPE1.
DB2 DSNZPARM Trace	KDPZTRC	Parameters that are related to the trace. These parameters are defined on the DB2 panel, DSNTIPN.
DB2 DSNZPARM Utility	KDPZUTIL	DSNZPARM parameters that are related to utilities. These parameters are defined on DB2 the panels DSNTIP6, DSNTIP61, and DSNTIP62.
DB2 Dynamic SQL Cache Filter Options	KDPDSQLF	Filter options to manage the data returned from the Dynamic SQL cache especially when many rows are returned. The default filter option settings display the first 100 statements in descending order of the accumulated CPU time.

Table 7. enhanced 3270UI workspace names and descriptions (continued)

Workspace Name	Panel Identification (ID)	Workspace Content
DB2 Dynamic SQL Cache Statement Statistics	KDPDSQLS	A summary of the contents of the Dynamic SQL cache so that you can determine their performance. See <a href="#">“Zoom-in from DB2 Dynamic SQL Cache Statement Statistics (KDPDSQLS)”</a> on page 28.
DB2 Environmental Descriptor Manager (EDM) Pool	KDPEDM2A	An overview of the Environmental Descriptor Manager (EDM) pool activity that is connected with DB2.
DB2 Environmental Descriptor Manager (EDM) Pool (DB2 10)	KDPEDMA	An overview of the Environmental Descriptor Manager (EDM) pool activity that is connected with DB2.  The layout of the workspace depends on the DB2 version that is installed. The panel KDPEDMA applies to DB2 10.
DB2 Environmental Descriptor Manager (EDM) Pool (DB2 11)	KDPEDMB	An overview of the Environmental Descriptor Manager (EDM) pool activity that is connected with DB2.  The layout of the workspace depends on the DB2 version that is installed. The panel KDPEDMB applies to DB2 11.
DB2 Global Buffer Pool Detail	KDPGBPDT	Details about a specific global buffer pool for a member of a data sharing group.
DB2 Global Buffer Pool Detail	KDPPGBPD	Group buffer pool detail for all members of a data sharing group.
DB2 Global Buffer Pools Summary	KDPPGBPO	The global buffer pools for all members of a data sharing group. See <a href="#">“Zoom-in from KDPPGBPO”</a> on page 17.
DB2 Group All DSNZPARM	KDPPZPRM	Parameters that are related to DSNZPARM.
DB2 Group Buffer Pool Detail Castout	KDPPGBPP	Prefetch information and castout information about a group buffer pool for all members of a data sharing group.
DB2 Group Buffer Pool P-Lock	KDPGBPLK	The P-Lock information for a group buffer pool.
DB2 Group Buffer Pool P-Lock	KDPPGBPL	The P-Lock information for a group buffer pool for all members of a data sharing group.
DB2 Group Buffer Pool Secondary Buffer Pools Group level	KDPPGBPC	The DB2 Group Buffer Pool secondary information for all members of a data sharing group.
DB2 Group Buffer Pool Statistics	KDPPGPLL	A summary of all group buffer pools for all members of a data sharing group. See <a href="#">“S Global and Group Buffer Pools (KDPPGPLL)”</a> on page 16.
DB2 group buffer Pool Sync and GBP write	KDPPGBPS	Sync reads, writes and the hit ratio of a group buffer pool for all members of a data sharing group.
DB2 Group DSNZPARM Active Log Parameters	KDPPZLOG	Parameters that are related to the active log. These parameters are defined on the DB2 panel, DSNTIPL.
DB2 Group DSNZPARM Application Parameters	KDPPZAPP	Parameters that are related to applications. These parameters are defined on the DB2 panels DSNTIPF, DSNTIP4, and DSNTIP41.



Table 7. enhanced 3270UI workspace names and descriptions (continued)		
Workspace Name	Panel Identification (ID)	Workspace Content
DB2 Group DSNZPARM Archive Log Parameters	KDPPZARC	Parameters that are related to log archiving. These parameters are defined on the DB2 panels DSNTIPA and DSNTIPH.
DB2 Group DSNZPARM Data Definition Control Parameters	KDPPZDDCS	Parameters that are related to data. These parameters are defined on the DB2 panel DSNTIPZ.
DB2 Group DSNZPARM Data Parameters	KDPPZDAT	Parameters that are related to data. These parameters are defined on the DB2 panels DSNTIPA2, DSNTIPO3, and DSNTIPM.
DB2 Group DSNZPARM Dataset and Database Parameters	KDPPZDSN	Parameters that are related to datasets and databases. These parameters are defined on DB2 panels DSNTIP7, DSNTIP71, DSNTIP91, and DSNTIPS.
DB2 Group DSNZPARM Data Sharing Parameters	KDPPZDSG	The parameters that are related to data sharing. These parameters are defined on the DB2 panel DSNTIPK.
DB2 Group DSNZPARM Default Buffer Pool Parameters	KDPPZBP	Parameters that are related to the Default Buffer Pools. These parameters are defined on the DB2 panel DSNTIP1.
DB2 Group DSNZPARM IRLM Parameters	KDPPZIRL	Parameters that are related to IRLM. These parameters are defined on the DB2 panels DSNTIPI and DSNTIPJ.
DB2 Group DSNZPARM Operator Functions Parameters	KDPPZCTL	Parameters that are related to operator functions. These parameters are defined on the DB2 panels DSNTIPO, DSNTIPP, DSNTIPP1, DSNTIPR and DSNTIP5.
DB2 Group DSNZPARM Other Parameters	KDPPZOTH	Miscellaneous parameters that are defined on the DB2 panels DSN6SYSP, DSN6LOGP, DSN6ARVP, DSN6SPRM, DSN6FAC, and DSNHDECP.
DB2 Group DSNZPARM parameters	KDPPZSYS	Displays information about DSNZPARM parameters that are related to thread management. See <a href="#">“G DSNZPARMs (KDPPZSYS)”</a> on page 12.
DB2 Group DSNZPARM Performance and Optimization	KDPPZPF	Parameters that are related to performance and optimization. These parameters are defined on the DB2 panels DSNTIP8, DSNTIP81, and DSNTIP82.
DB2 Group DSNZPARM Storage and sizes	KDPPZSTG	DSNZPARM parameters that are related to storage and sizes. These parameters are defined on the DB2 panels DSNTIPC and DSNTIPD.
DB2 Group DSNZPARM Stored Procedure	KDPPZSP	DSNZPARM parameters that are related to Stored Procedures. These parameters are defined on the DB2 panel DSNTIPX.
DB2 Group DSNZPARM Trace	KDPPZTRC	Parameters that are related to the trace. These parameters are defined on the DB2 panel, DSNTIPN.
DB2 Group DSNZPARM Utility	KDPPZUTL	DSNZPARM parameters that are related to utilities. These parameters are defined on DB2 the panels DSNTIP6, DSNTIP61, and DSNTIP62.
DB2 Group Object Analysis Database Spacename	KDPPGOAS	The table spaces within a database. With this information, you can do an analysis of a group object.

*Table 7. enhanced 3270UI workspace names and descriptions (continued)*

<b>Workspace Name</b>	<b>Panel Identification (ID)</b>	<b>Workspace Content</b>
DB2 Group Object Analysis Thread Database	KDPGOATD	Object Analysis database use by thread for a data sharing group. See <a href="#">“P Group Object Analysis Thread Database (KDPGOATD)”</a> on page 11.
DB2 Group Object Analysis Volume Thread	KDPGVOL2	The thread activity by volume workspace.
DB2 Group SQL Counts Data Control Language (DCL)	KDPPSQL2	The system SQL counts for the Data Control Language (DCL) for each member of a data sharing group.
DB2 Group SQL Counts Data Definition Language (DDL)	KDPPSQL3	The system SQL counts for the Data Definition Language (DDL) for each member of a data sharing group.
DB2 Group SQL Counts Data Manipulation Language (DML)	KDPPSQL1	Displays the system SQL counts for a thread for each member of a data sharing group. See <a href="#">“F Group SQL Counts (KDPPSQL1)”</a> on page 16.
DB2 Group SQL Counts for Concentrate Literals	KDPPSQL8	The system SQL counts for Concentrate Literals for each member of a data sharing group.
DB2 Group SQL Counts for Prepares	KDPPSQL7	The system SQL counts for Prepares for each member of a data sharing group.
DB2 Group SQL Counts for Stored Procedures, User Defined Functions and Triggers	KDPPSQL6	The system SQL counts for Stored Procedures, User Defined Functions, and Triggers for each member of a data sharing group.
DB2 Group SQL Counts Miscellaneous	KDPPSQLE	The system miscellaneous SQL counts for each member of a data sharing group.
DB2 Group SQL Counts Query Parallelism	KDPPSQL5	The system SQL counts for query parallelism for each member of a data sharing group.
DB2 Group SQL Counts Record Identifier (RID) List Processing	KDPPSQL4	The system SQL counts for Record Identifier (RID) List Processing for each member of a data sharing group.
DB2 Group SQL Counts Row ID Access	KDPPSQLD	The system SQL counts for Row ID Access for each member of a data sharing group.
DB2 Group SQL Counts Use Committed	KDPPSQLA	The system SQL counts for Use Committed for each member of a data sharing group.
DB2 Group SQL Counts Workfiles	KDPPSQLB	The system SQL counts for workfiles for each member of a data sharing group.
DB2 Main	KDPSTART	The active Data Sharing Groups and the active DB2 subsystems. From this workspace, you can drill down to any other screens.
DB2 SQL Counts Data Control Language (DCL)	KDPSQL2	The system SQL counts for Data Control Language (DCL) for a DB2 subsystem.
DB2 SQL Counts Data Definition Language (DDL)	KDPSQL3	The system SQL counts for Data Definition Language (DDL) for a DB2 subsystem.

<i>Table 7. enhanced 3270UI workspace names and descriptions (continued)</i>		
<b>Workspace Name</b>	<b>Panel Identification (ID)</b>	<b>Workspace Content</b>
DB2 SQL Counts Data Manipulation Language (DML)	KDPSQL1	The SQL counts for the Data Manipulation Language (DML) for a DB2 subsystem. See <a href="#">“Navigating from SQL Counts DML (KDPSQL1)”</a> on page 27.
DB2 SQL Counts for Concentrate Literals	KDPSQL8	The system miscellaneous SQL counts for each member of a data sharing group.
DB2 SQL Counts for Prepares	KDPSQL7	The system SQL counts for Prepares for a DB2 subsystem.
DB2 SQL Counts for Stored Procedures, User Defined Functions and Triggers	KDPSQL6	The system SQL counts for Stored Procedures, User Defined Functions, and Triggers for a DB2 subsystem.
DB2 SQL Counts Miscellaneous	KDPSQLE	The system miscellaneous SQL counts for each member of a data sharing group.
DB2 SQL Counts Query Parallelism workspace	KDPSQL5	The system SQL counts for Query Parallelism for a DB2 subsystem.
DB2 SQL Counts Record Identifier (RID) List Processing	KDPSQL4	The system SQL counts for Record Identifier (RID) List Processing for a DB2 subsystem.
DB2 SQL Counts Row ID Access	KDPSQLD	The system SQL counts for Row ID access for a DB2 subsystem.
DB2 SQL Counts Use Committed	KDPSQLA	The system SQL counts for Use Committed for each member of a data sharing group.
DB2 SQL Counts Workfiles	KDPSQLB	The system SQL counts for workfiles for each member of a data sharing group.
DB2 Thread Detail Locks Owned	KDPPLK	The locks and claims that are owned by a thread that is linked from the data sharing group Lock Conflicts workspace.
Distributed Thread Detail	KDPTHRDD	Information about the VTAM® APPC conversations and TCP/IP conversations of a distributed (DDF) thread. Version 5.1.1.
Find DSNZPARM Parameters	KDPPZFND	Parameters that are related to DSNZPARM.  With the information in this workspace, you can find DB2 parameters by field name or description for all members in a data sharing group.
Find DSNZPARM Parameters	KDPZFIND	DB2 parameters by field name or field description for a DB2 subsystem.
Global Buffer Pools	KDPPGPLL	A summary of all group buffer pools for all members of a data sharing group. See <a href="#">“S Global and Group Buffer Pools (KDPPGPLL)”</a> on page 16.
Global Buffer Pool Summary	KDPGBPOL	A summary of active group buffer pools for this member of the data sharing group.
Global Lock Statistics	KDPLOK3	A summary of all locking activity in a data sharing group.
Group Buffer Pool Prefetch Castout	KDPGBPPF	Prefetch information and castout information about a group buffer pool.

Table 7. enhanced 3270UI workspace names and descriptions (continued)

Workspace Name	Panel Identification (ID)	Workspace Content
Group Buffer Pool Secondary GBP	KDPGBPSC	The DB2 Group Buffer Pool secondary information.
Group Buffer Pool Summary	KDPGPOOL	A list of active group buffer pools.A drill down for more details is also available.
Group Buffer Pool Sync and GBP write	KDPGBPSY	Sync reads, writes and the hit ratio of a group buffer pool.
Group Object Activity by Tablespace	KDPGOAT2	Information about the activity of a group object by table space. With this information, you can do a more detailed analysis of the activities for a DB2 tablespace.
Group Object Analysis Database Activity	KDPGOATS	A high-level analysis of getpage and I/O activity from a DB2 database perspective. See <a href="#">“D Group Object Analysis Database Activity (KDPGOATS)”</a> on page 14.
Group Object Analysis Spacename	KDPGSPAC	Provides information about the activity of DB2 databases and DB2 tablespaces. With this information, you can do a more detailed analysis of the activities for a DB2 databases and DB2 tablespaces.
Group Object Analysis Space Name	KDPSPAC	Provides information about the activity of DB2 databases and DB2 tablespaces. With this information, you can do a more detailed analysis of the activities for a DB2 databases and DB2 tablespaces.
Group Object Analysis Spacename Detail	KDPGSPAD	The Group Object Analysis tablespace detail workspace.
Group Object Analysis	KDPGOA	A global view of object allocation data for a specific data sharing group. See <a href="#">“O Group Object Analysis (KDPGOA)”</a> on page 14.
Group Object Volume Database	KDPGVDB	Displays information you can use to analyze I/O activity for a single volume in a DB2 database. Based on the information that this workspace provides, you can recommend changes, set up situations, and verify that your recommended changes improve system performance.
History DB2 Messages	KDPMSGH	Display historical DB2 messages that can help you diagnose performance problems in the past.
IMS Connections	KDPIMS	An overview of DB2 thread activity that is originating from connected IMS subsystems.
IMS Region Information	KDPIMSRG	Detailed status information for a specific IMS dependent region.
Key Performance Indicators	KDPKPI1	A summary of thread related Key Performance Indicators for a DB2 subsystem. It includes connections, transactions and locking Key Performance Indicators, which can help you quickly identify and resolve any performance issues. (Version 5.3.0 and higher).
Latch Counters	KDPLOK2	View latch statistics counters associate with a latch level.
Lock Conflicts	KDPLOCKS	An overview of the DB2 database lock conflicts.
Lock Manager Information	KDPLOK1	A view of current locking activity.

<i>Table 7. enhanced 3270UI workspace names and descriptions (continued)</i>		
<b>Workspace Name</b>	<b>Panel Identification (ID)</b>	<b>Workspace Content</b>
Locking Conflicts	KDPLKC2	Displays the lock conflicts that exist for a DB2 subsystem.
Log Manager	KDPLOGSB	An overview of the DB2 log manager active logging and archiving activity. This workspace applies to DB2 11.
Log Manager	KDPLOGSM	An overview of the DB2 log manager active logging and archiving activity. This workspace applies to DB2 10.
Log Manager	KDPLOGS9	An overview of the DB2 log manager active logging and archiving activity.
Miscellaneous Key Performance Indicators	KDPKPI3	Miscellaneous Key Performance Indicators for a DB2 subsystem. It includes monitoring, logging, stored procedures, user defined functions and query parallelism Key Performance Indicators, which can help you quickly identify and resolve any performance issues. (Version 5.3.0 and higher).
MVS Storage above 2 GB	KDPSTA2A	The MVS Storage Above 2 GB workspace provides an overview of MVS storage above the 2 GB bar. It shows information about storage allocation within the DBM1 and DIST address space.
Navigation options popup	KDPCPDBZ	
Package Statistics	KDPCPKG	Provides information about the size of the data exchanged between the DB2 Connect gateway and the host database and about the network time required. It enables you to measure the throughput between the host database and the DB2 Connect gateway and gives you a better idea of the database activity and network traffic at the application level.
Pools and Storage Key Performance Indicators	KDPKPI2	A summary of pool and storage related Key Performance Indicators for a DB2 subsystem. It includes DB2 pools, storage, buffer pools, sorting and group buffer pools Key Performance Indicators, which can help you quickly identify and resolve any performance issues. (Version 5.3.0 and higher).
Real and auxiliary storage	KDPSTU2A	The Real Aux workspace provides an overview of real and auxiliary storage allocation within DBM1 and DIST address space.
Secondary Latch Cont. Counters	KDPLOK4	View IRLM latch contention counters in Db2 statistics trace.
Shared storage above 2 GB	KDPSTS2A	The STMT workspace provides an overview of DB2 subsystem shared storage and shared variable storage above 2 GB.
SQL Text	KDPDYNTX	Displays the SQL text of statements in the Dynamic SQL cache.
SQL Text	KDPSTATX	Displays the SQL text of statement in the Static SQL cache.
Statistics	KDPDYNST	Displays the statistics for a statement in the Dynamic SQL cache.
Statistics	KDPSTAST	Displays the statistics for a statement in the Static SQL cache.
Storage Consumption	KDPSTO2A	The DB2 subsystem storage consumption.

<i>Table 7. enhanced 3270UI workspace names and descriptions (continued)</i>		
<b>Workspace Name</b>	<b>Panel Identification (ID)</b>	<b>Workspace Content</b>
Storage Consumption Common Storage Below and Above	KDPSTOCA	The DB2 subsystem storage consumption for common storage below and above 2 GB. For DB2 10 or higher. Version 5.1.1
Storage Consumption DBM1 and MVS Storage Below 2 GB	KDPSTOAA	The DB2 subsystem storage consumption for DBM1 Storage and MVS Storage below 2 GB. For DB2 10 or higher. Version 5.1.1.
Storage Consumption DBM1 and MVS Storage Below 2 GB	KDPSTOA9	The DB2 subsystem storage consumption for DBM1 and MVS Storage below 2 GB. Version 5.1.1.
Storage Consumption IRLM	KDPSTOIB	The IRLM workspace provides an overview of DB2 IRLM storage allocation including HWM and thresholds. For DB2 11 or higher. Version 5.2.0.
Storage Consumption LPAR	KDPSTOLA	The LPAR workspace provides an overview of MVS LPAR shared storage above 2 GB. For DB2 10 or higher. Version 5.2.0.
Storage Consumption Real and Auxiliary	KDPSTOM9	The DB2 subsystem consumption in MB for real and auxiliary storage. Version 5.1.1.
Storage Consumption Real and Auxiliary Pages	KDPSTOUA	The DB2 subsystem storage consumption for real and auxiliary pages. For DB2 10 or higher. Version 5.1.1.
Storage Consumption Shared Storage Above 2GB	KDPSTOSA	The DB2 subsystem storage consumption for shared storage above 2 GB. For DB2 10 or higher. Version 5.1.1.
Storage Consumption Storage Below 2 GB	KDPSTORA	The DB2 subsystem storage consumption for storage below 2 GB. For DB2 10 or higher. Version 5.1.1.
Storage Consumption Subsystem Shared Storage Above 2GB	KDPSTOBA	The DB2 subsystem storage consumption for shared storage above 2 GB. For DB2 10 or higher. Version 5.2.0.
Subsystem Shared Storage above 2 GB	KDPSTO2B	The Subsy Shr workspace displays subsystem shared storage above 2 GB including real storage and auxiliary storage.
System Resource Manager	KDPSUBSM	An overview of workload related information about the DB2 subsystem that you are monitoring.

Table 7. enhanced 3270UI workspace names and descriptions (continued)

Workspace Name	Panel Identification (ID)	Workspace Content
System States	KDPKPI4	Key DB2 system and thread related performance data. This data includes thread, stored procedures, user defined functions, triggers, locks, and open datasets, which can help you quickly identify and resolve any performance issues.
The Cancel Thread Pop-up	KDPTCANC	Provides an option to cancel a thread.
Thread CICS Connection	KDPTHICIC	Display CICS connection information for a CICS thread.
Thread Detail Accelerator	KDPTHRDC	Information about accelerator metrics for an active thread.
Thread Detail Accounting Class 1 and 2	KDPTHDA2	The accounting classes 1 and 2 for a selected thread.
Thread Detail Accounting Class 1 and 2	KDPTHRDA	The accounting classes 1 and 2 for a selected thread. Version 5.1.1.
Thread Detail Accounting Class 3 Wait Times	KDPTHR3D	The accounting class 3 wait times for a selected thread.
Thread Detail Distributed	KDPTHDD2	Information about the VTAM APPC conversations and TCP/IP conversations of a distributed (DDF) thread.
Thread Detail Long Names	KDPTHRDN	The long names (identification fields) that are associated with a specific thread.
Thread Detail SQL Text	KDPTSQLT	The SQL statement that a DB2 thread is currently executing.
Thread Enclave Detail	KDPTHDE2	Detailed information about the workload manager (WLM) enclave service periods.
Thread Enclave Detail	KDPTHRDE	Detailed information about the workload manager (WLM) enclave service periods. Version 5.1.1.
Thread Locks Owned	KDPTHRDL	Detailed information about the locks and the claims that are owned by an individual thread.
Thread SQL Counts Data Control Language (DCL)	KDPTSQL2	Displays the SQL counts for the Data Control Language (DCL) for a thread. Version 5.2.0.
Thread SQL Counts Data Definition Language (DDL)	KDPTSQL3	The SQL counts for the Data Definition Language (DDL) for a thread. Version 5.2.0.
Thread SQL Counts Data Manipulation Language (DML)	KDPTSQL1	The SQL counts for the Data Manipulation Language (DML) for a thread. Version 5.2.0.
Thread SQL Counts for Concentrate Literals	KDPTSQL8	The SQL counts for Concentrate Literals for a thread. Version 5.2.0.
Thread SQL Counts for Prepares	KDPTSQL7	The SQL counts for Prepares for a thread. Version 5.2.0.
Thread SQL Counts for Stored Procedures, User Defined Functions and Triggers	KDPTSQL6	The SQL counts for Stored Procedures, User Defined Functions, and Triggers for a thread. Version 5.2.0.
Thread SQL Counts Miscellaneous	KDPTSQLE	The miscellaneous SQL counts for a thread. Version 5.2.0.

Table 7. enhanced 3270UI workspace names and descriptions (continued)

Workspace Name	Panel Identification (ID)	Workspace Content
Thread SQL Counts Query Parallelism	KDPTSQL5	The SQL counts for query parallelism for a thread. Version 5.2.0.
Thread SQL Counts Record Identifier (RID) List Processing	KDPTSQL4	The SQL counts for the Record Identifier (RID) List Processing for a thread. Version 5.2.0.
Thread SQL Counts Row ID Access	KDPTSQLD	The SQL counts for row ID access for a thread. Version 5.2.0.
Thread Summary	KDPTHRD	A global view of thread activity for a specific DB2 subsystem. You can sort differently by changing the Sort field.
T Thread Detail SQL Text (KDPPSQLT)	KDPSSQLS	A summary of the contents of the Static SQL cache so that you can determine their performance. See <a href="#">“Zoom-in from T Thread Detail SQL Text (KDPPSQLT) (KDPSSQLS)”</a> on page 28.
Utility Jobs	KDPUTILS	An overview of the active utilities. Workspace monitoring includes utilities that have not yet completed their run because of abnormal termination.
Volume Activity	KDPGVOL	An overview of the performance of the volumes that contain DB2 objects. See <a href="#">“Q Group Object Analysis Volume (KDPGVOL)”</a> on page 15..  With this information, you can evaluate DASD performance by volume.
Volume Detail Activity	KDPGVOLD	A detail view of the performance of volumes that contain DB2 objects. With this information, you can evaluate DASD performance.
Volume Thread	KDPGVOLT	The volume activity by thread workspace. See <a href="#">“V Group Object Analysis Volume Thread (KDPGVOLT)”</a> on page 11.
z/OS System Statistics	KDPZOS	Overall CPU usage, paging real and virtual storage usage by DB2.



## Product legal 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 Armonk, NY 10504-1785 U.S.A.

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 Director of Licensing IBM Corporation North Castle Drive Armonk, NY 10504-1785 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 OMEGAMON for Db2 Performance Expert.

This publication documents information that is NOT intended to be used as Programming Interfaces of OMEGAMON for Db2 Performance Expert.

This publication primarily documents intended Programming Interfaces that allow the customer to write programs to obtain the services of OMEGAMON for Db2 Performance Expert.

This publication also documents information that is NOT intended to be used as Programming Interfaces of OMEGAMON for Db2 Performance Expert. 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 OMEGAMON for Db2 Performance Expert.

This publication also documents intended Programming Interfaces that allow the customer to write programs to obtain the services of OMEGAMON for Db2 Performance Expert. This information is identified where it occurs by an introductory statement to a topic or section.

## **Trademarks**

IBM, the IBM logo, and [ibm.com](http://www.ibm.com/legal/copytrade.html)® 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>.

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.

## Terms and conditions for product documentation

Permissions for the use of these publications are granted subject to the following terms and conditions:

**Applicability:** These terms and conditions are in addition to any terms of use for the IBM website.

**Personal use:** You may reproduce these publications for your personal, noncommercial use provided that all proprietary notices are preserved. You may not distribute, display or make derivative work of these publications, or any portion thereof, without the express consent of IBM.

**Commercial use:** You may reproduce, distribute and display these publications solely within your enterprise provided that all proprietary notices are preserved. You may not make derivative works of these publications, or reproduce, distribute or display these publications or any portion thereof outside your enterprise, without the express consent of IBM.

**Rights:** Except as expressly granted in this permission, no other permissions, licenses or rights are granted, either express or implied, to the publications or any information, data, software or other intellectual property contained therein.

IBM reserves the right to withdraw the permissions granted herein whenever, in its discretion, the use of the publications is detrimental to its interest or, as determined by IBM, the above instructions are not being properly followed.

You may not download, export or re-export this information except in full compliance with all applicable laws and regulations, including all United States export laws and regulations.

IBM MAKES NO GUARANTEE ABOUT THE CONTENT OF THESE PUBLICATIONS. THE PUBLICATIONS ARE PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE.

## 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.

For more information about the use of various technologies, including cookies, for these purposes, see IBM's Privacy Policy at <http://www.ibm.com/privacy> and the section titled "Cookies, Web Beacons, and Other Technologies" in IBM's Online Privacy Statement at <http://www.ibm.com/privacy/details>. Also, see the "IBM Software Products and Software-as-a-Service Privacy Statement" at <http://www.ibm.com/software/info/product-privacy>.

---

# Index

## A

about this information [5](#)  
accessibility features [2](#)  
Active Threads  
    CICS [19](#)  
    Utilities [19](#)  
All Active DB2 Subsystems [19](#)

## C

Cancel Thread [19](#)  
CIC Threads [21](#)  
comments, sending [3](#)  
Common [28](#)  
CON STMT [28](#)  
cookie policy [59](#), [61](#)  
coupling facility details [17](#)

## D

database activity [14](#)  
DB2 connect server  
    KDPCONN [22](#)  
    KDPCONNS [22](#)  
    KDPCPERF [22](#)  
    KDPCPKG [22](#)  
    KDPCTASK [22](#)  
DB2 Messages (KDPMSGs)  
    KDPMSGC [26](#)  
    KDPMSGH [26](#)  
DCL [27](#)  
DDL [27](#)  
descriptions [47](#)  
DSNZPARMs [12](#)  
DSNZPARMS [23](#)

## G

global buffer pools [16](#)  
Group Active Threads  
    KDPPTHDS [10](#)  
    KDPPTHRD [10](#)  
group lock conflicts [12](#)  
group object analysis  
    KDPGOATD [11](#)  
    KDPSPAC [11](#)  
    thread database [11](#)  
Group Object Analysis  
    KDPGOA [14](#)  
Group SQL Counts [16](#)

## H

history [18](#), [29](#)

## I

IMS Connections  
    KDPIMS [22](#)  
    KDPIMSRG [22](#)  
IRLM [28](#)

## K

KDPCONN [22](#)  
KDPCONNS [22](#)  
KDPCPERF [22](#)  
KDPCPKG [22](#)  
KDPCTASK [22](#)  
KDPGBPOL [27](#)  
KDPGOA [14](#)  
KDPGOAS [14](#)  
KDPGOATD [11](#)  
KDPGOATS [14](#)  
KDPGPOOL [27](#)  
KDPIMS [22](#)  
KDPIMSRG [22](#)  
KDPMSGC [26](#)  
KDPMSGH [26](#)  
KDPMSGs [26](#)  
KDPPTHDS [10](#)  
KDPPTHRD [10](#)  
KDPSPAC [11](#)  
KDPSQL2 [27](#)  
KDPSQL3 [27](#)  
KDPSQL4 [27](#)  
KDPSQL5 [27](#)  
KDPSQL6 [27](#)  
KDPSQL7 [27](#)  
KDPSQL8 [27](#)  
KDPSQLA [27](#)  
KDPSQLB [27](#)  
KDPSQLD [27](#)  
KDPSQLE [27](#)  
KDPSTA2A [28](#)  
KDPSTART [19](#)  
KDPSTC2A [28](#)  
KDPSTO2B [28](#)  
KDPSTOIB [28](#)  
KDPSTOLA [28](#)  
KDPSTS2A [28](#)  
KDPSTU2A [28](#)  
KDPTCANC [19](#)  
KDPTHCIS [19](#)  
KDPTHD52 [19](#)  
KDPTHDA2 [19](#)  
KDPTHDD2 [19](#)  
KDPTHDE2 [19](#)  
KDPTHRD3 [19](#)  
KDPTHRDC [19](#)  
KDPTHRDL [19](#)  
KDPTHRDN [19](#)

KDPTSQL1 [19](#)  
KDPTSQLT [19](#)  
KDPUTILS [19](#)  
Key Performance Indicators Display [24](#)  
KPDGSPAD [14](#)

## L

legal notices  
    cookie policy [59](#), [61](#)  
    notices [59](#)  
    programming interface information [59](#), [60](#)  
    trademarks [59–61](#)  
Locking Conflicts [25](#)  
LPAR [28](#)

## M

MISC [28](#)  
MVS [28](#)

## N

NESTED SQL [27](#)  
notices [59](#), [60](#)

## O

options menu [19](#)  
overview [7](#)

## P

package statistics KDPCPKG [22](#)  
PARAL [27](#)  
performance KDPCPERF [22](#)  
product overview [7](#)  
programming interface information [59](#), [60](#)

## R

Real Aux [28](#)  
RID [27](#)  
ROWID [27](#)

## S

sending comments [3](#)  
server statistics KDPCONNS [22](#)  
service [2](#)  
spacename detail (KPDGSPAD) [14](#)  
SQL Counts DML (KDPSQL1)  
    KDPSQL2 [27](#)  
    KDPSQL3 [27](#)  
    KDPSQL4 [27](#)  
    KDPSQL5 [27](#)  
    KDPSQL6 [27](#)  
    KDPSQL7 [27](#)  
    KDPSQL8 [27](#)  
    KDPSQLA [27](#)  
    KDPSQLB [27](#)  
    KDPSQLD [27](#)

SQL Counts DML (KDPSQL1) *(continued)*

    KDPSQLE [27](#)  
STMT [28](#)  
Storage (KDPSTO2A)  
    KDPSTA2A [28](#)  
    KDPSTC2A [28](#)  
    KDPSTO2B [28](#)  
    KDPSTOIB [28](#)  
    KDPSTOLA [28](#)  
    KDPSTS2A [28](#)  
    KDPSTU2A [28](#)  
Subsy Shr [28](#)  
support home website [2](#)  
system statistics [26](#)

## T

tasks list KDPCTASK [22](#)  
Thread Detail Accelerator [19](#)  
Thread Detail Accounting [19](#)  
Thread Detail Class 3 [19](#)  
Thread Detail Distributed [19](#)  
Thread Detail Enclave [19](#)  
Thread Detail Locks Owned [19](#)  
Thread Detail SQL Counts [19](#)  
Thread Detail SQL Text [19](#)  
threads  
    CICS [19](#)  
    KDPPTHDS [10](#)  
    KDPPTHRD [10](#)  
    KDPTCANC [19](#)  
    KDPTHDA2 [19](#)  
    KDPTHDD2 [19](#)  
    KDPTHDE2 [19](#)  
    KDPTHRD3 [19](#)  
    KDPTHRDL [19](#)  
    KDPTHRDN [19](#)  
    KDPTSQL1 [19](#)  
    KDPTSQLT [19](#)  
    statistics (KDPPTHDS) [10](#)  
    Utilities [19](#)  
trademarks [59–61](#)

## U

updates [2](#)  
USE COMMITTED [28](#)  
Utilities  
    Threads [19](#)

## W

WORKFILE [28](#)  
workspace [47](#)





Product Number: 5655-W37

SH12-7074

