MainView for IMS Online User Guide

Supporting

Version 5.1 of MainView for IMS Online

January 2014
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About this book

This book documents how to use the MainView for IMS Online product, including the Online Resource Analyzer, Workload Analyzer, Resource Monitor, Workload Monitor, and trace services.

For information about implementing, configuring, and customizing MainView for IMS Online, see the MainView for IMS and MainView for DBCTL Customization Guide.

For information about new features in the current release of the product, see the product's release notes, which are available on the Support Central website at http://www.bmc.com/support.

The software also offers online Help. To access Help, press F1 or click Help.

Related publications

From the BMC Support Central website, you can use the following methods to access related publications that support your product or solution:

- Link to the BMC Documentation Center (https://webapps.bmc.com/infocenter/index.jsp) to browse documentation sets.

- View BMC Quick Course demos (short overviews of selected product concepts, tasks, or features), which are included in the BMC Documentation Center.

- Read individual product documents (books and notices) within the “A – Z Supported Product List.”

You can order hardcopy documentation from your BMC sales representative or from the support site. You can also subscribe to proactive alerts to receive e-mail messages when notices are issued.

Tip
You can access the BMC Support Central site at http://www.bmc.com/support.
Conventions

This document uses the following special conventions:

- All syntax, operating system terms, and literal examples are presented in this typeface.

- Variable text in path names, system messages, or syntax is displayed in italic text: 
  testsys/instance/file

- This document uses a symbol to show menu sequences. For example, Actions => Create Test instructs you to choose the Create Test command from the Actions menu.
MainView for IMS Online overview

MainView for IMS Online consists of the following components:

- Event Collector
  The Event Collector collects and records IMS event data. The collected data is used as input to the MainView for IMS Online views. The Event Collector is shared by the MainView for IMS Online and MainView for DBCTL products.
  For detailed information about the Event Collector, see the MainView for IMS and MainView for DBCTL Customization Guide.

- Online views
  The online views provide single system image (SSI) information for resources and bottlenecks across single or multiple IMS regions and systems. MainView for IMS Online exploits IBM Parallel Sysplex technology and simplifies the management of IMS applications on traditional mainframes.

Benefits of using MainView for IMS Online

From a single user session, you can monitor and analyze the performance of one or more IMS subsystems.

You can transfer quickly to other MainView products and you can manage CICS and DB2 subsystems and the operating system from a single point of control.

MainView for IMS Online collects and organizes the information you want into categories of online views:

- Optimize system performance
- Solve real-time problems
- Manage IMS operations

The following figure provides an overview of how MainView *for IMS* Online works:

**Figure 1: MainView *for IMS* Online overview**

---

**Optimize system performance**

Use MainView *for IMS* Online to discover performance and workload problems wherever they occur, across multiple operating systems and IMS subsystems.

With MainView *for IMS* Online, you can:
- Manage the progress, throughput, and response times of IMS workloads and transactions

- Examine workload throughput and capacity, as well as region occupancy for IMS and IMSplex systems

- Identify workload bottlenecks and delays caused by resource and capacity constraints

- Find alternative resources to eliminate workload queuing

The following types of views are provided to optimize system performance:

- **Workflow**
  These views allow system programmers to determine how much IMS transaction processing capacity is available and how much is being used at any given time. The views show any capacity shortages and recommend the number of regions needed to avoid creating a backlog of messages. Dynamic workload reconfiguration allows system programmers to dynamically change class assignments and transaction attributes directly from the display.

- **Transaction delay analysis**
  These views categorize transaction or workload delays and help you analyze individual resources that are causing delays. System programmers can use these views to ascertain which lock or DASD volume is causing delays and whether the delay affects a single IMS subsystem, a data-sharing group, the operating system, or a group of IMS subsystems.

- **Response time**
  These views show a picture of the life cycle of IMS transactions. System programmers can use the views to determine whether a transaction is being held up in queuing, scheduling, application processing, database access, or sync point processing.
The following figure shows how to use MainView for IMS Online to optimize system performance:

**Figure 2: Using MainView for IMS Online to optimize system performance**

Solve real-time problems

Use MainView for IMS Online to solve real-time problems quickly.

MainView for IMS Online makes it easy to:

- Analyze IMS subsystem activity
- Monitor region activity
- Recognize and resolve program isolation resource contention problems
- Recognize and resolve N-way data sharing contention
- Monitor users and terminals across single or multiple systems
- Monitor total response time by transaction and by LTERM
- Monitor the status of Open Transaction Manager Access (OTMA) clients, servers, and the transactions they are running

Real-time problem-solving views help operators and system programmers solve real-time problems involving resources and users across single or multiple IMS subsystems. The views allow easy monitoring of IMS system status, region activity, total transaction response time, users and terminals, and OTMA clients and servers. They also permit a quick analysis of lock problems, making it much easier to recognize and resolve program isolation lock contention or N-way data sharing resource contention.
The following figure shows how to use MainView for IMS Online to solve real-time problems:

**Figure 3: Using MainView for IMS Online to solve real-time problems**

Manage IMS operations

MainView for IMS Online is a powerful tool for managing IMS operations.

Use MainView for IMS Online to:

- Control and manage Fast Path DEDB areas
- Control and manage full-function databases
- Control and manage application programs
- Cross reference IMS resources, databases, programs, and transactions
- Recognize and solve problems with IMS database activity
- Monitor a multiple systems coupling (MSC) network
- Manage and solve problems with IMS shared message queuing

MainView for IMS Online puts you in the MainView windows environment as it monitors and reports the information you need to see.

Views for managing IMS operations allow database administrators, system programmers, and application programmers to manage Fast Path DEDB areas, full-function databases, and application programs. The views allow easy cross-referencing of IMS resources and assist in the management of IMS database activity, an MSC network, and shared message queuing.

The following figure shows how to use MainView for IMS Online to manage IMS operations:

**Figure 4: Using MainView for IMS Online to manage IMS operations**

To access a list of the views shown with asterisks above, enter VIEWSMAN* or VIEWSNAM*, where the variable represents the first three characters of the view name. You can then select a specific view from the list.
Where to start

Use the following starting points for understanding how to view information:

- Look at the figures in “MainView for IMS Online overview” on page 21 to get a visual overview.

- Look at the list of contents and pick an area of interest.

- Look at the view categories in the MAIN view, and then hyperlink from a category that interests you to see subcategories and specific views.

- Begin by looking at one of the EZ menus and selecting options from the menu (see “Interface and menus” on page 29).

If you are new to the product, try using one of the basic EZ menus (such as EZIMS for single-system information or EZISSI for multiple systems).

If you have previous experience with IMS or know what information you want to access, you might try using the IMS Fast Menu (EZIFAST).

If you are quite experienced and already know the views that you want to access, you can go directly to a view by typing the view name on the COMMAND line.
Interface and menus

The interface takes advantage of the MainView windows mode technology and MainView Explorer.

The MainView windows mode environment and MainView Explorer are described in the *MainView User Guide*.

**Interface**

The interface enhances the basic MainView windows mode technology in several ways.

**Capabilities of the interface**

The user interface displays information in views.

With the views, you can:

- Set targets for the system or subsystem you want to monitor
- Monitor multiple targets together in a single system image (SSI) context
- View historical data
- Issue primary commands in any view and line commands in many views
- Hyperlink between views
- Open multiple windows to see different views simultaneously and then save the configuration
- Sort information by any field
- Filter views to display only the information you want to see
Customize views to:

— Include or exclude any field
— Rearrange fields
— Change the width or heading of a field
— Create hyperlinks between views
— Summarize and display data from many resources in a single row
— Set thresholds, assigning a color or character display

Access and customize online Help

You can make use of these functions by following the procedures described in the MainView User Guide or the MainView Administration Guide.

Context overview

A context is a name that identifies a MainView product running on one or more target systems.

A context can be a single target system or a single system image (SSI) that includes multiple target systems.

On some menus, the context is displayed in the target field. On views, the context is displayed in the window information line. To change the context, select the target field or use the CONText command.

Dynamic SSI contexts are automatically populated by MainView for IMS to represent natural groupings of targets. MainView for IMS provides the following dynamic SSI contexts:

<table>
<thead>
<tr>
<th>Context name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSPLEX</td>
<td>Represents all members of the IMSplex groups associated with your current IMS target.</td>
</tr>
<tr>
<td>MSGROUP</td>
<td>Represents all members of the message sharing groups associated with your current IMS target.</td>
</tr>
<tr>
<td>DSGROUP</td>
<td>Represents all members of the data sharing groups associated with your current IMS target.</td>
</tr>
</tbody>
</table>

When a MainView for IMS PAS connects to an IMS target, the PAS automatically creates a dynamic context for any of the group types that the IMS belongs to. For
example, if the target IMS belongs to an IMSplex group named CSLPLX11 you can enter `CONTEXT IMSPLEX:CSLPLX11` and your SSI context will automatically include all members of that IMSplex group.

**View navigation**

Navigation between views is designed to be "point and shoot." In other words, you can position the cursor on any highlighted field in a view, press the **Enter** key, and access a new view containing related information.

You can start by displaying one of the EZ menus (such as EZIMS for a single system or EZISSI for multiple systems). Position the cursor on any menu item of interest and press **Enter** to access a view that provides the information you want.

In most views that you access from an EZ menu, you can hyperlink from any object in the far left information column to access an object menu. From the object menu, you can hyperlink to other views that provide detailed, in-context information about the object (resource, job, or workload) you selected. (For a description of the EZ menus and object menus, see “Menus” on page 41.)

Rather than hyperlinking to a view, you can access it directly by typing the view name on any COMMAND line, or you can select the view from a list of views.

You can type **MAIN** on any COMMAND line to access a functional list of view categories and then select a category to access a list of all the views in the category. From the category list, you can hyperlink to the individual views. Once you are familiar with the category names, you can simply type the category name on any COMMAND line to access the list of views in the category without having to start with the MAIN view.

You can also type **VIEWS** on any COMMAND line to access a list of all views and then select a view from the VIEWS list. Or you can type **VIEWS** and the beginning of a view name, followed by as asterisk, to access a list of views that start with the characters you entered. For example, you could enter **VIEWS IDA*** to get a list of all the database activity views, which start with IDA.

**Advantage of hyperlinking**

Hyperlinking from one view to another, or from an object menu to a related view, has the advantage of keeping a "filter" on the data in the view.

For example, if you hyperlink to the Program Overview view (IPGSUMR) from the **Count** field in the Program Count by Type view (IPGTYPR), the IPGSUMR view is filtered to show all application programs of the type you selected.
By contrast, if you navigate to the IPGSUMR view by typing its name on the COMMAND line, you see an unfiltered view that shows all application program types, not just the programs of the type that interest you.

**Advantages of typing the view name**

Navigating by typing the view name on the COMMAND line is faster and more direct, and you do not have to remember the navigation path to the data.

As you gain experience, you may want to remember and enter the names of views you use often, and then hyperlink from those views to related views.

If you split your screen into multiple windows (as described in the MainView User Guide), you can see more than one view at a time. For example, in one window you can see a tabular view and in another window you can see the data displayed as a result of hyperlinking from a specific row within the tabular view.

**Keyboard functions**

In the MainView environment, many key functions are the same as they are in ISPF.

For example, the END, DOWN, UP, LEFT, and RIGHT keys are defined and function the same way in both environments.

The **Enter** key performs multiple functions. You can use it to refresh data in a view if you have not cursor-selected any field and if you do not have any commands entered. If you have multiple windows open, the data is refreshed in all the windows.

You can use the **Enter** key to execute commands once you have typed them in the primary command field or line command column. If you have multiple windows open, a command is executed only in the window where the cursor was last active.

If you press **Enter** after cursor-selecting a field with a highlighted header, a hyperlink is executed, taking you to a view containing related information.

If you press **Enter** after cursor-selecting a field that contains summarized data (a field in a summary view), you will access a detail view displaying all the data that was summarized in the first view. Most summary views provide a hyperlink to detailed views, displaying the data that was summarized. Typically, the detail view is hyperlinked to from the count field.
Online Help

The **PF1** key is used to access online Help.

For information about the view you are in, position the cursor on the view name in the window information line and press **PF1**. For a description of a particular field within a view, position the cursor on the field, then press **PF1**.

To see line commands available within a certain view, position the cursor in the line command column (located to the far left in views that support line commands), and then press **PF1**. You can also access line command information by selecting the ACTIONS hyperlink in the view help.

Issue IMS commands

You can issue IMS Type-1 and Type-2 commands by using the Issue IMS Commands dialog, which is shown in the following figure:

**Figure 5: Issue IMS Commands dialog**

<table>
<thead>
<tr>
<th>COMMAND ===&gt;</th>
<th>SCROLL ===&gt; CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target IMS ID: I13H</td>
<td>Context: I13H51CT</td>
</tr>
<tr>
<td>Enter the IMS Command (Prefix classic Type-1 commands with a forward slash)</td>
<td></td>
</tr>
<tr>
<td>=&gt; QUERY PGM NAME(DFSIVP4) SHOW(ALL)</td>
<td></td>
</tr>
<tr>
<td>=&gt;</td>
<td>=&gt;</td>
</tr>
</tbody>
</table>

Response:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PgmName</td>
<td>DFSIVP4</td>
</tr>
<tr>
<td>MbrName</td>
<td>I13H</td>
</tr>
<tr>
<td>CC</td>
<td>0000</td>
</tr>
<tr>
<td>Lrntype</td>
<td>IFP</td>
</tr>
<tr>
<td>LbMtype</td>
<td>N</td>
</tr>
<tr>
<td>Lfp</td>
<td>E</td>
</tr>
<tr>
<td>Ldopt</td>
<td>N</td>
</tr>
<tr>
<td>Lgpsb</td>
<td>N</td>
</tr>
<tr>
<td>Lrsnt</td>
<td>Y</td>
</tr>
<tr>
<td>Ltranstat</td>
<td>N</td>
</tr>
<tr>
<td>Lschdtype</td>
<td>SERIAL</td>
</tr>
</tbody>
</table>

Access the Issue IMS Commands dialog

Access the Issue IMS Commands dialog in the following ways:

- Select the ISSUE IMS COMMANDS option on any EZ menu.
- Enter the IMSCMDS command on the COMMAND line of any EZ menu.
Select the ISSUE IMS COMMANDS option from the:

- Database Menu (IDBMR)
- Program Menu (IPGMR)
- Fast Path DEDB Area Menu (IFPMR)
- Transaction Menu (ITRMSR)
- Region Menu (IRGNMR)

Enter the IMSCMDS command on the COMMAND line of the:

- Database views (IDB*)
- Program views (IPG*)
- Fast Path area views (IFP*)
- Transaction views (ITR*)
- Region views (IRGN* and DRGN*)
- MSC views (IMC*)
- OTMA views (IOTM* and ITPI*)
- Cross-reference views (IX*)

**Use the Issue IMS Commands dialog**

IMS commands are typed in the input area toward the top of the dialog.

The following rules apply:

- Type-1 commands must be preceded by a / (slash).
- The IMSCMDS command is not valid in SSI mode.

Results from the commands are displayed as follows:

- Results from Type-2 commands are displayed in the Response area in the bottom of the dialog.
Results from Type-1 commands are logged in the PAS journal. You can use the LOGJRNL or LOGMSG views to look at responses as long as the PAS journal messages are being routed to the MVI Logger.

View Containers

A View Container is displayed in MainView Explorer (under EZExplorer) and contains multiple views and charts. BMC provides the following predefined View Containers:

- “IMS Overview (target mode) View Container” on page 35
- “IMS Status (target mode) View Container” on page 36
- “Data Base Activity (target mode) View Container” on page 37
- “PSB DMB Pool Utilization (target mode) View Container” on page 38
- “IMS Systems Overview (SSI mode) View Container” on page 39
- “IMS Systems Status (SSI mode) View Container” on page 40

IMS Overview (target mode) View Container

This container displays data graphed over a 4-hour period.

The views in the container show average transaction times, average transaction rates, IMS system and control region CPU utilization, and message queuing.
IMS Status (target mode) View Container

This container displays data graphed over a 4-hour period.

The views in the container show a dashboard for a single IMS system identifying key interval metrics, the average transaction times, and message queuing.
Data Base Activity (target mode) View Container

This container displays data graphed over a 4-hour period.

The views in the container show I/O rate per second for VSAM/OSAM buffer pools and DEDB databases, average response time for VSAM/OSAM buffer pools and DEDB databases, worst hit ratio for VSAM/OSAM buffer pools, and average DLI call time for Full Function and Fast Path databases.
PSB DMB Pool Utilization (target mode) View Container

This container displays data graphed over a 4-hour period.

The views in the container show data collected by the PSBP, PBPW, DMBP, and DBWP resource monitors.
IMS Systems Overview (SSI mode) View Container

This container displays data graphed over a 4-hour period.

The views in the container show average processing rate, average response time, input queue time, and IMS system CPU utilization.
IMS Systems Status (SSI mode) View Container

This container displays data graphed over a 4-hour period.

The views in the container show a dashboard for all IMS systems identifying key interval metrics, the average response times, and average processing rates.
Conventions for view names

Views follow a simple naming convention:

The first character is usually the letter *I*. The next two or three characters are based on the view category (such as *RGN* for region views and *DL* for delay views).

If the letters *DTL* follow the category characters, the view is a detail view. If the letters *SUM* follow the category characters, the view is a summarized view, a tabular view, or both. If the view name ends with the letter *R*, the view is usually a real-time view. If the view name does not end with an *R*, the view is usually an interval view.

Easy and fast menus (such as EZIMS, EZISSI, and EZIFAST) begin with the letters *EZ*. EZ menus are standard entry points for MainView products.

Menus

Menus help you access different views and information by grouping information.
Access to MainView for IMS Online

To enter the MainView for IMS Online product, begin at the MainView Selection Menu.

Select the MVIMS (MainView for IMS) option from the MainView Selection Menu to access the IMS Solutions menu, shown in the following figure.

For information about how to access the MainView Selection Menu, see the MainView User Guide.

Figure 6: IMS Solutions menu

<table>
<thead>
<tr>
<th>OPTION</th>
<th>IMS Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
<td>-- 2013/02/11</td>
</tr>
<tr>
<td>TIME</td>
<td>-- 12:32:36</td>
</tr>
<tr>
<td>USERID</td>
<td>userid</td>
</tr>
<tr>
<td>MODE</td>
<td>-- ISPF 6.1</td>
</tr>
</tbody>
</table>

---

Performance

1 MVIMS MainView for IMS ONLINE
2 BATCH MainView for IMS OFFLINE (4.5 and above)

Application Management and Operations

T MVTA MainView Transaction Analyzer
V MVVP MainView VistaPoint
A AUTOMATION MainView AutoOPERATOR
E ALERTS Alert Management

General Services

M MESSAGES Messages and Codes
J JOURNAL Journal Log
P PARMS Parameters and Options

When you select the MVIMS option, one of the following panels is displayed:

- The default EZ menu EZISSI if you have not specified a different menu as the initial screen in the Parameter Confirmation panel
- A different EZ menu if you have specified a menu other than EZISSI as the initial screen in the Parameter Confirmation panel
- The Parameter Confirmation panel if you have specified YES in the Confirm field of the Parameter Confirmation panel

You can change the parameter confirmation setting from the MainView Selection Menu by selecting the 0.1.I options, or you can change the option from within the product by typing MVP on any COMMAND line and then selecting I for MVIMS. You can also change the setting by selecting the P option in the IMS Solutions panel.

EZ menus

The EZ menus provide easy access to important system performance information.
From the EZ menus, you can select views and other menus. The menu items use symbols as follows:

- A period before a menu option indicates a hyperlink to another view or service.
- A greater-than sign indicates a hyperlink to another menu.
- An asterisk means that the hyperlink is not available. A hyperlink field could have an asterisk because a product is not installed or because the hyperlink doesn’t work in a multiple system context.

After you become familiar with the product, you are more likely to use the following methods to access system performance information:

- Enter the view name on the COMMAND line
- Hyperlink from related views

To display an EZ menu, use one of the following methods:

- Enter the menu name on the COMMAND line
- Enter VIEWS in the COMMAND line and then select the EZ menu from the VIEWS list

**IMS Easy Menu (EZIMS or EZIMSR)**

The IMS Easy Menu (EZIMS or EZIMSR) is a good place to start when you want to view system performance information for a single IMS subsystem.

The menu (Figure 7 on page 44) provides access to all key views and menus. You can select one of the menu options listed under a task category and press Enter to access a specific type of information, collected and displayed in a view.

The EZIMS menu provides access to system performance information gathered during a time interval. For system performance information in real time, use the EZIMSR menu. You can use either menu to:

- View system performance information
Select the IMS Fast Menu EZIFAST (shown in “IMS Fast Menu (EZIFAST or EZIFA STR)” on page 45) and other EZ menus

Figure 7: IMS Easy Menu (EZIMS)

IMS SSI Easy Menu (EZISSI or EZISSIR)

The interval IMS SSI Easy Menu (EZISSI or EZISSIR) provides options for obtaining performance measurement information about all the IMS subsystems across a group of subsystems.

The EZISSI menu provides access to information gathered during a time interval. For information gathered in real time, see the EZISSIR menu.

Although the options in this menu are specific to multiple IMS subsystems, the menu works just like the other EZ menus described in this chapter. To view data for
a specific target, select the **Current Target** field and then select the target from the TGTSEL list. You can also use the CONtext command to specify a target.

**Figure 8: IMS SSI Easy Menu (EZISSI)**

<table>
<thead>
<tr>
<th>Timeframe - Interval</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status: ACTIVE</td>
<td>Transactions</td>
</tr>
<tr>
<td></td>
<td>Programs</td>
</tr>
<tr>
<td></td>
<td>Databases</td>
</tr>
<tr>
<td></td>
<td>Areas</td>
</tr>
<tr>
<td></td>
<td>DB and Area datasets</td>
</tr>
<tr>
<td></td>
<td>IMSplex Connections</td>
</tr>
<tr>
<td></td>
<td>Cross Reference</td>
</tr>
<tr>
<td></td>
<td>Transactions/Programs</td>
</tr>
<tr>
<td></td>
<td>Programs/Databases</td>
</tr>
<tr>
<td></td>
<td>Databases/Transactions</td>
</tr>
<tr>
<td></td>
<td>Databases/Programs</td>
</tr>
<tr>
<td></td>
<td>IMS Catalog</td>
</tr>
<tr>
<td></td>
<td>Exceptions</td>
</tr>
<tr>
<td></td>
<td>Current Delays</td>
</tr>
<tr>
<td></td>
<td>Database Lock Waits</td>
</tr>
<tr>
<td></td>
<td>Waiting Regions</td>
</tr>
<tr>
<td></td>
<td>Warnings</td>
</tr>
<tr>
<td></td>
<td>Alarms in Exception</td>
</tr>
<tr>
<td></td>
<td>Unavailable Resources</td>
</tr>
<tr>
<td></td>
<td>IMS Fast Menu</td>
</tr>
<tr>
<td></td>
<td>IMS Easy Menu</td>
</tr>
<tr>
<td></td>
<td>IMS Easy Ops Menu</td>
</tr>
<tr>
<td></td>
<td>IMS Easy DBA Menu</td>
</tr>
<tr>
<td></td>
<td>IMS Easy MSC Menu</td>
</tr>
<tr>
<td></td>
<td>IMS Classic Menu</td>
</tr>
<tr>
<td></td>
<td>IMS Easy Admin Menu</td>
</tr>
<tr>
<td></td>
<td>Installed Products</td>
</tr>
<tr>
<td></td>
<td>What's New?</td>
</tr>
<tr>
<td></td>
<td>Return...</td>
</tr>
</tbody>
</table>

**IMS Fast Menu (EZIFAST or EZIFASTR)**

The IMS Fast Menu (EZIFAST or EZIFASTR) provides menu item categories that link to more detailed information.

---

**Chapter 2  Interface and menus**
The EZIFAST menu provides access to information gathered during a time interval. For information gathered in real time, see the EZIFASTR menu.

**Figure 9: IMS Fast Menu (EZIFAST)**

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>SCROLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1 =EZIFAST======</td>
<td>CSR</td>
</tr>
</tbody>
</table>

IMS Fast Menu

**Timeframe - Interval**

<table>
<thead>
<tr>
<th>System</th>
<th>Status: ACTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Database Activity</td>
</tr>
<tr>
<td>Dashboard</td>
<td>Overview</td>
</tr>
<tr>
<td>General Information</td>
<td>Databases</td>
</tr>
<tr>
<td>Warnings</td>
<td>Programs by Status</td>
</tr>
<tr>
<td>&gt; IMS System Menu</td>
<td>Databases/Transactions</td>
</tr>
<tr>
<td>Scheduling</td>
<td>Programs/DBAs</td>
</tr>
<tr>
<td>Statistics</td>
<td>Databases/Transactions</td>
</tr>
<tr>
<td>DMB Utilization</td>
<td>Resources</td>
</tr>
<tr>
<td>PSB Utilization</td>
<td>Transactions by Status</td>
</tr>
<tr>
<td>Activity by Class</td>
<td>Programs by Status</td>
</tr>
<tr>
<td>Activity by BALG</td>
<td>Databases by Status</td>
</tr>
<tr>
<td>Regions</td>
<td>Areas by Status</td>
</tr>
<tr>
<td>Overview</td>
<td>Unavailable</td>
</tr>
<tr>
<td>Occupancy</td>
<td>&gt; Resources Menu</td>
</tr>
<tr>
<td>All Regions</td>
<td>&gt; IMS Connect</td>
</tr>
<tr>
<td>Processing</td>
<td>&gt; MSC Physical Links</td>
</tr>
<tr>
<td>Waiting</td>
<td>&gt; MSC Logical Links</td>
</tr>
<tr>
<td>Communications</td>
<td>&gt; SMQ Structures</td>
</tr>
<tr>
<td>Input Messages</td>
<td></td>
</tr>
<tr>
<td>Output Messages</td>
<td></td>
</tr>
<tr>
<td>Active Users</td>
<td></td>
</tr>
<tr>
<td>APPC</td>
<td></td>
</tr>
<tr>
<td>ODBM Summary</td>
<td></td>
</tr>
<tr>
<td>OTMA Summary</td>
<td></td>
</tr>
<tr>
<td>OTMA Transactions</td>
<td></td>
</tr>
<tr>
<td>IMS Connect</td>
<td></td>
</tr>
<tr>
<td>MSC Physical Links</td>
<td></td>
</tr>
<tr>
<td>MSC Logical Links</td>
<td></td>
</tr>
<tr>
<td>MSC MSNames</td>
<td></td>
</tr>
</tbody>
</table>

**IMS Operations Menu (EZIOPSR)**

The real-time IMS Operations Menu (EZIOPSR) is provided specifically for operations personnel.

The menu provides real-time information about IMS resources, IMS resource exceptions, IMS processing exceptions, and current IMS activity. It also provides command capability for IMS resources so that you can issue a command for a single resource across multiple IMS subsystems. (Command capability requires installation of the MainView AutoOPERATOR product for IMS.)

You can select the **Current Target** field to change from one target to another or to change from multiple targets to a single target.
When the context is multiple IMS targets, an asterisk is displayed beside hyperlinks that are available only for a single IMS target. To change the SSI context, you can select the **Context Members** field or use the CONtext command.

**Figure 10: IMS Operations Menu (EZIOPSR)**

![IMS Operations Menu](image)

**IMS DBA Easy Menu (EZIDBA or EZIDBAR)**

The interval IMS DBA Easy Menu (EZIDBA) is provided specifically for database administrators.

The menu provides hyperlinks to key database-related performance and processing information gathered during a time interval or in real time.

You can select the **Current Target** field to change from one target to another or to change from multiple targets to a single target.
When the context is multiple IMS targets, an asterisk is displayed beside hyperlinks that are available only for a single IMS target. To change the SSI context, you can select the Context Members field or use the CONtext command.

**Figure 11: IMS DBA Easy Menu (EZIDBA)**

Display a view

You can display a view by using the following methods:

- Enter the view name on the COMMAND line.
- Enter **MAIN** on the COMMAND line, selecting the view category from the MAIN list, and then selecting the view from the category list.
- Enter **VIEWS** on the COMMAND line and select a view from the VIEWS list.

You can also hyperlink to many of the views from other views and from EZ menus and object menus.
**Note**

SMQ is displayed in the message count field of workload and transaction processing views if the ISQQUERY parameter is set to prevent collection of message count data for IMS subsystems using shared message queues. The ISQQUERY parameter is located in the BBPARM member IMFBEX00. When the ISQQUERY parameter is set to allow collection of message count data for shared message queues, you can also use the parameter to define the refresh rate for the data.

For information about the ISQQUERY parameter, see the *MainView for IMS and MainView for DBCTL Customization Guide*. To determine the current settings of the ISQQUERY parameter, use the IBEXSUMR view.
Manage IMS workflow performance

Use the workflow views to manage IMS workflow and transaction processing throughput.

IMS workflow performance overview

Using the workflow views, you can answer the following performance questions:

- “Is IMS resource usage too high?” on page 55
- “Are regions available for processing?” on page 56
- “Are any transaction classes being delayed?” on page 58
- “Is transaction scheduling performing normally?” on page 62
- “Are BALGs being serviced efficiently?” on page 64
Figure 12: Analyzing IMS workflow performance

The workflow views are grouped by the following types of information:

- “IMS performance views” on page 68
- “IMS plex performance views” on page 69
- “Region occupancy views” on page 70
- “Class activity views” on page 71
- “Transaction processing views” on page 72
- “BALG views” on page 75
Each view group includes both summary and detail views, and most of the views have a real-time version and an interval version. Real-time views show information from the present time. Interval views show information gathered over a time period. The time period can be either from current or past time.

**Tip**

Online Help is available for each IPSM view. To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. Online Help is also available for each of the fields in a view. To access help for a field, position the cursor on the field and press the Help key.

Some views are available in both a bar graph format and a text format. The bar graph format displays data in bar graphs to give you a quick visual picture. The text format provides additional numerical information. (Some monitor configurations do not support the extended attributes required for viewing the bar graph format.)

**Where to start analyzing workflow performance**

A good starting place for analyzing IMS workflow performance is the IMS Performance Graph view (IMSDTLGR) for a single IMS or one of the IMS plex performance views (IMSPLX*) for multiple IMS subsystems.
Both views are available in a bar graph format and a text format. The bar graph format of the real-time IMS Performance Graph view (IMSDTLG) is shown in Figure 13 on page 54.

**Figure 13: IMS Performance Graph view (IMSDTLG), bar graph format**

![Image of bar graph format](image)

**Note**
Some monitor configurations do not support the extended attributes required for viewing the bar graph format. If your monitor does not support the bar graph format, IMSDTLGR will look like the view shown in Figure 14 on page 54.

**Figure 14: IMS Performance Graph view (IMSDTLG), text format**

```
15APR2007  14:13:49 ------ MainView WINDOW INTERFACE (Vx.x.xx) ----------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===> 2
W1 =IMSDTLGR===========IMSxxx===*========15APR2007==14:32:49====MVIMS====D====1
IMS ID......        X91H                 Monitored..
IMSplex Name        PLX3A1                Regions...       108
Msg Shr Grp.        DFSXCFGP             DB Shr Grp.      NONE
...25...50...75..100                  ...25...50...75..100
CPU Util....    10  **                   Sched Msgs.   5  *
Region Occ..    48  ********             Excess Inp   2  **
...25...50...75..100 BMP Msgs...   2
Arrival Rate  87
Process Rate  86
BMP Arrival.  20
BMP Process.  20
Resp Time...  0.058
InputQ Pct..   10
Elapsed Pct.  90
IMS Job Name        IMSxxx               MVS Name...      SJSC
IMS CPU Util              10             MVS CPU Util  87
IMS Paging..               3             MVS Paging.  59
```
Tip
Several fields in the IMSDTLGR view hyperlink to other views that contain related information. You can use this view interaction technique to isolate and identify potential problems.

Is IMS resource usage too high?

To determine whether your IMS resource usage is too high, start by looking at the IMSDTLGR fields, and then check the IMS Class Activity view (ICLSUMR).

Figure 15: Views for checking IMS resource usage

You can begin an analysis of IMS resource usage by looking at the IMS CPU Util, IMS Paging, Regions with Excess Occ, Regions with Excess CPU, Regions with Excess DLI, and Regions with Excess SQL fields in the IMSDTLGR view. The fields are highlighted in the following figure:

Figure 16: Fields for checking resource usage (IMSDTLGR)
If a value in one of the highlighted fields is unusual or above normal, determine if the problem is related to one of the following situations:

- **Application mix**
  Access the ICLSUMR view (shown in Figure 17 on page 56). The ICLSUMR view shows all the classes defined to an IMS subsystem and how they are being used by all IMS regions.

- **A heavier than usual workflow**
  Access the IMSDTLR view (shown in Figure 18 on page 56) and check the **Arrival Rate** and **Process Rate** fields. The IMSDTLR view provides detailed information about the work being performed and the resources being used by an IMS subsystem.

- **Changes in the applications themselves**

**Figure 17: IMS Class Activity view (ICLSUMR)**

```
15APR2007 08:41:31 ------ MainView WINDOW INTERFACE (Vx.x.xx) ---------------
COMMAND ===> SCROLL ===> HALF
CURR WIN ===> 1       ALT WIN ===> W1 =ICLSUMR=IMSxxx=*==15APR2007==08:41:31==MVIMS==D==3
Cls IMS Sched NonSch BMP Avg Proc Arriv Queue Elapsed Rgn Rgn Rgn
   ID Msgs Msgs Msgs BLog Rate Rate Time Time Enab Used Needed
  1 X91H  1234     11    0  485.8 + 2.54 12.34 4.000 170.190  123  0.3    0.2
  2 X91H    34     21    0    5.2 + 6.32 22.22 4.000  88.087  245  1.5    0.0
  3 X91H   234     31    0  151.9 + 1.12 33.42 4.000  23.023  492  0.5    0.0
```

**Figure 18: IMS Performance view (IMSDTLR)**

```
15APR2007 15:58:50 ------ MainView WINDOW INTERFACE (Vx.x.xx) ---------------
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1       ALT WIN ===> W1 =IMSDTLR=IMSxxx=*==15APR2007==09:07:38==MVIMS==D==1
IMS ID........ IHA CPU Utilization Transaction Times.
IMS Job Name.. IMSxxx MVS System.... 10 Response Time... 0.088
IMSplex Name.. CSLPLXA9 IMS System.... 1 Input Queue Time 0.009
Msg Shr Group. DFSMV1H1 Control Rgn. 0 Elapsed Time.... 0.079
DB Shr Group.. NONE DLI SAS Rgn. 0 Transaction Rates.
MVS Name...... SJSC TP Rgnhs.... 0 Arrival Rate.... 9
Monitored Rgn 3 BMP Rgnhs.... 0 Process Rate.... 10
Avg Region Occ 23 DBRC Rgn..... 0 BMP Arrival Rate 0
Occ Threshold. 0 IRLM Rgn..... 0 BMP Process Rate 0
Messages......... 2
Schedulable..... 1
Non-Schedulable. 1
EMH............. 0
BMP............. 0
```

**Are regions available for processing?**

To see if you have regions available for processing, begin by looking at the **Region Occ** field in the IMSDTLGR view, and then look at the Region Occupancy view (IRGOCCR).
The **Region Occ** field shows the percentage of time during which regions are busy processing or scheduling transactions. A high percentage in the field could mean that some regions are not available to process transactions when they arrive. The **Region Occ** field in the IMSDTLGR view is highlighted in the following figure:

If you find a high percentage in the **Region Occ** field, hyperlink from that field to access the Region Occupancy view (IRGOCCR), where you can see a summary of
processing by dependent regions. The IRGOCCR view is shown in the following figure:

**Figure 21: Region Occupancy view (IRGOCCR)**

The IRGOCCR view shows region and CPU usage. Region utilization is broken down by class. You can use this information to:

- Maximize region resource usage and balance workflow processing
- Evaluate the service provided to each class by each region
- Issue line commands to change class assignments dynamically

**Are any transaction classes being delayed?**

To analyze whether any transaction classes are being delayed, you can check to see if there are any excessive input queues for some classes, which transactions are delayed, and why.

You can then investigate to see if there are under-utilized regions, which you can use to process the work, or you can start additional regions to do the work.
To determine if classes are being delayed, first check the IMSDTLGR view and then hyperlink to ICLSUMR and other views for additional information. The following figure provides a diagram of the analysis process:

**Figure 22: Views for checking transaction class delays**

The first thing you need to do is check the following fields in the IMSDTLGR view:

- Process Rate
- Sched Msgs
- Classes with Excess Inp
The fields are highlighted in the following figure:

**Figure 23: Fields for checking transaction class delays (IMSDTLGR)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS ID</td>
<td>X91H</td>
</tr>
<tr>
<td>IMSplex Name</td>
<td>PLX3A1</td>
</tr>
<tr>
<td>CPU Util</td>
<td>10</td>
</tr>
<tr>
<td>Sched Msgs</td>
<td>5</td>
</tr>
<tr>
<td>Region Occ.</td>
<td>48</td>
</tr>
<tr>
<td>NonSch Msgs</td>
<td>0</td>
</tr>
<tr>
<td>EMH Msgs</td>
<td>0</td>
</tr>
<tr>
<td>BMP Msgs</td>
<td>2</td>
</tr>
<tr>
<td>Arrival Rate</td>
<td>87</td>
</tr>
<tr>
<td>Process Rate</td>
<td>86</td>
</tr>
<tr>
<td>BMP Process</td>
<td>20</td>
</tr>
<tr>
<td>Resp Time</td>
<td>0.058</td>
</tr>
<tr>
<td>InputQ Pct.</td>
<td>30</td>
</tr>
<tr>
<td>Elapsed Pct.</td>
<td>70</td>
</tr>
<tr>
<td>IMS Job Name</td>
<td>IMSxxx</td>
</tr>
<tr>
<td>IMS CPU Util</td>
<td>10</td>
</tr>
<tr>
<td>IMS Paging</td>
<td>3</td>
</tr>
</tbody>
</table>

A high value in any of the highlighted fields indicates processing delays somewhere in the system. Classes with Excess Inp shows the number of classes that have processing delayed beyond a limit established for input queuing.

The second thing you need to do is hyperlink from the Process Rate, Sched Msgs, or Classes with Excess Inp field to the IMS Class Activity view (ICLSUM), which shows you class usage.

**Figure 24: IMS Class Activity view (ICLSUM)**

<table>
<thead>
<tr>
<th>Class ID</th>
<th>Class Name</th>
<th>Avg Rate</th>
<th>Proc Rate</th>
<th>Arriv Queue</th>
<th>Elapsed Rgns</th>
<th>Enab Rgns</th>
<th>Used Rgns</th>
<th>Needed Rgns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X91H</td>
<td>123</td>
<td>11</td>
<td>0</td>
<td>485.8</td>
<td>12.54</td>
<td>3.4</td>
<td>4.0</td>
</tr>
<tr>
<td>2</td>
<td>X91H</td>
<td>34</td>
<td>21</td>
<td>0</td>
<td>5.2 + 6.32</td>
<td>22.22</td>
<td>4.0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>X91H</td>
<td>234</td>
<td>11</td>
<td>0</td>
<td>151.9 + 1.12</td>
<td>33.42</td>
<td>4.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

The ICLSUMR view shows all the classes defined to an IMS subsystem and how they are being used by all IMS regions. It shows the:

- Number of regions active for each class
- Number of regions used for each class
- Number of regions needed to prevent an increase in schedulable messages in the input queue
- Processing statistics for each class
As shown in Figure 22 on page 59, you can hyperlink from the ICLSUMR view to access additional information that you can use to analyze transaction class delays:

- If you want information about transactions that are queued for a class, hyperlink from the **Sched Msgs** or **NonSch Msgs** field in the ICLSUMR view. Both fields hyperlink to the ITRSUMR view (shown in “Is transaction scheduling performing normally?” on page 62).

- If you suspect a delay in throughput for a particular class, hyperlink from the **Cls** field in the ICLSUMR view. That hyperlink takes you to the ICLMSR Class Menu where you can hyperlink to the Class Activity Detail view (ICLDTLR). The Class Activity Detail view, shown in the following figure, shows detailed statistics about class processing.

![Figure 25: Class Activity Detail view (ICLDTLR)](image)

You can also access the Class Activity Detail view for a specific class at any time by entering ICLDTLR `classid` on the COMMAND line (where `classid` is the class you want to view).

If you want to see details about the regions that are processing each class, hyperlink from the **Rgns Enab** field in the ICLSUMR view. That hyperlink takes you to the Region Occupancy view (IRGOCCR), shown in “Are regions available for processing?” on page 56.

To see the occupancy of regions that are not enabled for a transaction class, hyperlink from the **Rgns Needed** field in the ICLSUMR view (see Figure 24 on page 60). That hyperlink takes you to the IRGOCCR view, where you can use actions to reassign the class.

In the IRGOCCR view, you can also:

- Hyperlink to see only the regions that are able to process the class
- Look at the occupancy of regions to see if they are available to process the work
- Look at the class assignments
Is transaction scheduling performing normally?

To see if transaction scheduling is performing normally, begin by examining the following fields in the IMSDTLGR view:

- Arrival Rate
- Sched Msgs

Next, hyperlink to the ITRSUMR and ITRDTLR views, where you can gather more detailed information. A diagram of the process is shown in Figure 26 on page 62.

Figure 26: Views for checking transaction scheduling
The Arrival Rate and Sched Msgs fields are highlighted in Figure 27 on page 63.

Figure 27: Fields for checking transaction scheduling (IMSDTLGR view)

<table>
<thead>
<tr>
<th>IMS ID</th>
<th>Monitored</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSplex Name</td>
<td>PLX3A1</td>
</tr>
<tr>
<td>Region Occ.</td>
<td>48</td>
</tr>
<tr>
<td>CPU Util.</td>
<td>10</td>
</tr>
<tr>
<td>Arrival Rate</td>
<td>87</td>
</tr>
<tr>
<td>Process Rate</td>
<td>86</td>
</tr>
</tbody>
</table>

The highlighted fields indicate how many messages are arriving per second and how many messages are schedulable. If either of the values is not normal for your site, check the status of transactions. You can check transaction statuses by switching to the ITRSUMR view, shown in Figure 28 on page 63.

To display the ITRSUMR view, enter ITRSUMR on the COMMAND line.

Figure 28: Transaction Overview view (ITRSUMR)

If you suspect that a transaction is not getting scheduled, you can hyperlink from that transaction’s status field in the ITRSUMR view to access the Transaction Detail view (ITRDTLR), shown in Figure 29 on page 64. The ITRDTLR view shows processing statistics and status for the selected transaction. You can use actions on
the ITRSUMR and ITRDTLR views to change the scheduling attributes of transactions that are not getting scheduled.

**Figure 29: Transaction Detail view (ITRDTLR)**

<table>
<thead>
<tr>
<th>23JUN2007 13:55:42</th>
<th>MainView WINDOW INTERFACE (V5.0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND ===&gt;</td>
<td>SCROLL ===&gt; CSR</td>
</tr>
<tr>
<td>CURR WIN ===&gt; 1</td>
<td>ALT WIN ===&gt;</td>
</tr>
<tr>
<td>Tran Code........</td>
<td>ADDINV</td>
</tr>
<tr>
<td>Status........</td>
<td></td>
</tr>
<tr>
<td>Tran Type..........</td>
<td>MPP</td>
</tr>
<tr>
<td>PSB Name..........</td>
<td>DFSSAM04</td>
</tr>
<tr>
<td>IMS ID...........</td>
<td>I10Z</td>
</tr>
<tr>
<td>Messages Queued...</td>
<td>0</td>
</tr>
<tr>
<td>Bytes Queued......</td>
<td>0</td>
</tr>
<tr>
<td>Class.............</td>
<td>1</td>
</tr>
<tr>
<td>Enabled Rgns......</td>
<td>0</td>
</tr>
<tr>
<td>Scheduled Rgns...</td>
<td>0</td>
</tr>
<tr>
<td>Priority- Normal.</td>
<td>7</td>
</tr>
<tr>
<td>Queue Limit.......</td>
<td>2</td>
</tr>
<tr>
<td>Process Limit.....</td>
<td>65535</td>
</tr>
<tr>
<td>Proclim Time.....</td>
<td>65535</td>
</tr>
<tr>
<td>Msg Segment Limit</td>
<td>0</td>
</tr>
<tr>
<td>SPA Length.......</td>
<td>0</td>
</tr>
<tr>
<td>EMHB Bufsize.....</td>
<td>0</td>
</tr>
<tr>
<td>Local SYSID......</td>
<td>3</td>
</tr>
<tr>
<td>Remote SYSID.....</td>
<td>N/A</td>
</tr>
<tr>
<td>Fast Path......</td>
<td>N</td>
</tr>
<tr>
<td>Wait for Input N</td>
<td></td>
</tr>
<tr>
<td>Serial........</td>
<td>N</td>
</tr>
<tr>
<td>Inquiry........</td>
<td>N</td>
</tr>
<tr>
<td>Restart Rcyy.</td>
<td>Y</td>
</tr>
<tr>
<td>Message Type.....</td>
<td>NONRESP</td>
</tr>
<tr>
<td>Edit Routine....</td>
<td>(blank)</td>
</tr>
<tr>
<td>SPA Truncation...</td>
<td>STRUNC</td>
</tr>
<tr>
<td>SPA Length.......</td>
<td>0</td>
</tr>
<tr>
<td>Defined by....</td>
<td>MODBLKS</td>
</tr>
<tr>
<td>Model Name....</td>
<td>N/A</td>
</tr>
<tr>
<td>Model Type.....</td>
<td>N/A</td>
</tr>
<tr>
<td>Date Created.</td>
<td>22JUN2007</td>
</tr>
<tr>
<td>Time Created.</td>
<td>10:22:29.06</td>
</tr>
</tbody>
</table>

You can also access the Transaction Detail view for a specific transaction at any time by entering **ITRDTLR tranid** on the COMMAND line (where **tranid** is the transaction you want to view).

**Are BALGs being serviced efficiently?**

To see if Fast Path balancing groups (BALGs) are being serviced efficiently, begin by looking at the **EMH Messages** field in the IMSDTLGR view, and then look at the IBGSUMR view.

**Figure 30: Views for checking BALG message processing**
The **EMH Messages** field is highlighted in the following figure:

**Figure 31: Field for checking BALG processing (IMSDTLGR)**

If the value shown in the **EMH Messages** field is high, the number of EMH messages queued is causing a delay in processing for the BALG.

To see how EMH messages are being processed by Fast Path regions, hyperlink from the **EMH Messages** field in the IMSDTLGR view. That hyperlink takes you to the **EMH Message Processing Overview view (IBGSUMR)**, shown in the following figure.

You can use the IBGSUMR view to determine where a delay in BALG processing is occurring.

**Figure 32: EMH Message Processing Overview view (IBGSUMR)**

Are BALGs being serviced efficiently?
Is the operating system affecting IMS performance?

If you have the MainView for z/OS product installed, you can hyperlink from IMSDTLGR to views that show you how the operating system is affecting IMS performance.

**Figure 33: Views for checking the effect of operating system performance**

Check the following fields in the IMSDTLGR view to see if the operating system is affecting performance:

- **IMS Paging**: shows the number of page-ins and page-out for the IMS subsystem
- **MVS CPU Util**: shows the percentage of CPU used by the operating system
- **MVS Paging**: shows the number of page-ins and page-outs for the operating system where IMS is running
The fields are highlighted in the following figure:

Figure 34: Fields for checking operating system processing (IMSDTLGR)

For more information about how to use operating system views, see the MainView for z/OS User Guide and Reference.

Views for workflow management

This section describes views that you can use to manage IMS workflow.

The views are grouped into the following categories:

- “IMS performance views” on page 68
- “IMS plex performance views” on page 69
- “Region occupancy views” on page 70
- “Class activity views” on page 71
- “Transaction processing views” on page 72
- “BALG views” on page 75

Each view category contains several views, and the basic function of the views is essentially the same, with variations based on whether the data displayed is real-time or interval data.
In some views you can take actions to make dynamic system changes. The actions are described in the online Help.

There are several ways that you can customize views, such as including fields that are initially hidden, adding or changing hyperlinks, setting thresholds and threshold colors, and filtering data based on condition criteria. For information about customizing views, see the MainView User Guide.

Note
All views are described in the online view Help. Use one of the following ways to access the view Help:

- Position the cursor on the view name on the window information line and press the Help key.
- Enter HELP followed by a space and the name of the view on the COMMAND line.

IMS performance views

The IMS performance views display resource usage and workflow performance for a single IMS subsystem. The following IMS performance views are provided:

- IMS Performance Graph, real time (IMSDTLGR)
- IMS Performance Graph, interval (IMSDTLG)
- IMS Performance, real time (IMSDTLM)
- IMS Performance, interval (IMSDTL)

The IMSDTLGR view (shown in Figure 35 on page 69) is an example of a real-time IMS performance view. You can use the IMSDTLGR view and the other IMS performance views to determine if IMS is meeting its performance objectives. IMSDTLGR shows how critical resources, including application region processing, are being used by IMS.

The Resp Time, Process Rate, Sched Msgs, EMH Messages, and Classes with Excess Inp and Elap fields are all indicators of whether IMS is meeting general throughput and response time objectives.
If IMS is not meeting its objectives, you can check the **Arrival Rate** field to see if the workflow has increased. You can also check the operating system fields for indications of system resource competition.

**Figure 35: Example of an IMS performance view (IMSDTLGR)**

The IMS plex performance views show how well each IMS is processing its workflow and how much of your resources are being used by each IMS across multiple IMS subsystems. The following IMS plex performance views are provided:

- IMS Plex Performance, real time (IMSPLXR)
- IMS Plex Performance, interval (IMSPLX)
- IMS Plex Performance Graph, real time (IMSPLXGR)
- IMS Plex Performance Graph, interval (IMSPLXG)
- IMS Plex Performance by Data Sharing Group, real time (IMSPLSR)
- IMS Plex Performance by Data Sharing Group, interval (IMSPLS)
- IMS Plex Performance by Data Sharing Group Graph, real time (IMSPLSGR)
- IMS Plex Performance by Data Sharing Group Graph, interval (IMSPLSG)
- IMS Plex Performance by MVS, real time (IMSPLMR)
- IMS Plex Performance by MVS, interval (IMSPLM)
- IMS Plex Performance by MVS Graph, real time (IMSPLMGR)
- IMS Plex Performance by MVS Graph, interval (IMSPLMG)
- IMS Plex Performance by Message Sharing Group, real time (IMSPLGR)
- IMS Plex Performance by Message Sharing Group, interval (IMSPLG)
- IMS Plex Performance by Message Sharing Group Graph, real time (IMSPLGGR)
- IMS Plex Performance by Message Sharing Group Graph, interval (IMSPLGG)

The IMSPLXR view, shown in the following figure, is an example of a real-time IMS plex performance view. You can use the view and the other plex activity views to analyze IMS performance across multiple IMS subsystems. Resource statistics, such as CPU utilization, are aggregated for each IMS subsystem. Throughput statistics are for the entire workflow serviced by an IMS subsystem.

Figure 36: Example of an IMS plex performance view (IMSPLXR)

Region occupancy views

The region occupancy views summarize dependent region processing.

The views show how busy a region is, processing and scheduling transactions, and which workload the region is processing. Regions can be viewed for a single IMS subsystem, the operating system, a data sharing group, or across any other grouping. The following region occupancy views are provided:

- Region Occupancy, real time (IRGOCCR)
- Region Occupancy, interval (IRGOCC)
- Region Occupancy Graph, real time (IRGOCCGR)
- Region Occupancy Graph, interval (IRGOCCG)
Region Occupancy Summary, real time (IRGOVWR)

Region Occupancy Summary, interval (IRGOVW)

The following figure is an example of a real-time region occupancy view (IRGOCCR). The IRGOCCR view and the other region occupancy views summarize dependent region processing by the region service provided to each class.

**Figure 37: Example of a region occupancy view (IRGOCCR)**

<table>
<thead>
<tr>
<th>Command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Stop a region</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /STOP REGION command to stop a region or thread (region terminates when current transaction or thread UOW is complete)</td>
</tr>
<tr>
<td>CLs</td>
<td>Change a class</td>
</tr>
<tr>
<td></td>
<td>Changes the class number by typing over the current values (not applicable to DBCTL threads)</td>
</tr>
</tbody>
</table>

The following line commands are available on the region occupancy views:

---

**Note**

Line commands require implementation of the MainView AutoOPERATOR product for IMS. For more information, see the information about activating action line commands the MainView for IMS and MainView for DBCTL Customization Guide.

Class activity views

The class activity views divide IMS transaction processing into class workloads.

Class processing can be summarized for a single IMS subsystem or operating system, for a data sharing group, or across any grouping you choose. The following class activity views are provided:

- Class Activity, real time (ICLSUMR)
- Class Activity, interval (ICLSUM)
- Class Activity Graph, real time (ICLSUMGR)
- Class Activity Graph, interval (ICLSUMG)
- Class Activity by Data Sharing Group, real time (ICLSUMSR)
- Class Activity by Data Sharing Group, interval (ICLSUMS)
- Class Activity by Data Sharing Group Graph, real time (ICLSUGSR)
- Class Activity by Data Sharing Group Graph, interval (ICLSUGS)
- Class Activity by Message Sharing Group, real time (ICLSUMMR)
- Class Activity by Message Sharing Group, interval (ICLSUMM)
- Class Activity by Message Sharing Group Graph, real time (ICLSUGMR)
- Class Activity by Message Sharing Group Graph, interval (ICLSUGM)
- Class Activity Detail, real time (ICLDTLR)
- Class Activity Detail, interval (ICLDTL)

The ICLSUMR view (shown in the following figure) is an example of a real-time class activity view. The ICLSUMR view and the other class activity views show all the classes defined to IMS, the level of service they are receiving, how much work is waiting to be processed, and how many processing resources the classes are using.

**Figure 38: Example of a class activity view (ICLSUMR)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Command</th>
<th>Scroll</th>
<th>Current Window</th>
<th>Alternate Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007 08:41:31</td>
<td>MainView</td>
<td>WINDOW INTERFACE (Vx.x.xx)</td>
<td>HALF</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

| Class | IMS | Sched | NonSch | BMP | Avg | Proc | Arriv | Queue | Elapsed | Rgns | Rgns | Rgns | ID | Msgs | Msgs | Msgs | Blog | Rate | Rate | Time | Time | Enab | Used | Needed |
|-------|-----|-------|--------|-----|-----|------|-------|-------|---------|------|------|------|----|------|------|------|------|------|------|------|------|-------|
| 1 X91H | 1234 | 11 | 0 | 485.8 | + | 2.54 | 12.34 | 4.000 | 170.190 | 123 | 0.3 | 0.2 | |
| 2 X91H | 34 | 21 | 0 | 5.2 | + | 6.32 | 22.22 | 4.000 | 88.087 | 245 | 1.5 | 0.0 | |
| 3 X91H | 234 | 31 | 0 | 151.9 | + | 1.12 | 33.42 | 4.000 | 23.023 | 492 | 0.5 | 0.0 | |

To access a detailed view of processing information for a specific class, position the cursor on the class number and press **Enter**.

**Transaction processing views**

The transaction processing views summarize the processing activity of all transactions.
Transaction processing can be summarized for a single IMS subsystem or operating system, for a data sharing group, or across any grouping you choose. The following transaction processing views are provided:

- Transaction Overview, real time (ITRSUMR); see Figure 39 on page 73
- Transaction Detail, real time (ITRDTLR)
- Transaction Status Summary, real time (ITRSTAR)
- Summarized Transaction Overview, real time (ITRSUMZ)
- Transactions with Exceptions, real time (ITREXCP)
- Transactions by PSB Name and IMS, real time with active transaction count (ITRSUMPZ)
- Transactions by PSB Name and IMS, real time (ITRSUMPR)
- Fast Path Route Code Summary view (IFPRTCDR); see “Fast Path Route Code Summary view (IFPRTCDR)” on page 74

The following figure is an example of a real-time transaction processing view (ITRSUMR). The ITRSUMR view and the ITRDTLR view show scheduling and parameter status and region statistics for transactions.

**Figure 39: Example of a transaction processing view (ITRSUMR)**

The following line commands are available on the transaction processing views:

<table>
<thead>
<tr>
<th>Linecommand</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPT</td>
<td>Stop a transaction</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /STOP TRAN command to stop the scheduling or queuing of messages containing the transaction code</td>
</tr>
<tr>
<td>Linecommand</td>
<td>Result</td>
</tr>
<tr>
<td>-------------</td>
<td>--------</td>
</tr>
</tbody>
</table>
| **SST**     | Start a transaction  
Issues the IMS /START TRAN command to start the transaction, which enables LTERM or other program message scheduling and queuing |
| **PUPUT**   | Purge a transaction  
Issues the IMS /PURGE TRAN command to stop input messages destined for the transaction code.  
Transactions can still be scheduled. |
| **PSPST**   | Stop transaction scheduling  
Issues the IMS /PSTOP TRAN command to stop the scheduling of messages containing the transaction code  
The command prevents transaction scheduling after the limit count for the transaction code is reached. PS and PST cannot stop Fast Path exclusive (FPE) transactions, but they can stop Fast Path potential (FPP) transactions. |
| **LLT**     | Lock a transaction  
Issues the IMS /LOCK TRAN command to stop the scheduling of messages containing the transaction code |
| **UUT**     | Unlock a transaction  
Issues the IMS /UNLOCK TRAN command to free a transaction code previously locked by the /LOCK TRAN command |
| **CHa**     | Change a transaction parameter  
Change the following transaction parameters by typing over the displayed values: class, normal priority, parallel limit, queue limit count, and maximum regions  
For information about valid values for the fields, see the online Help. |
| **QRY**     | Query a transaction  
Issues the IMS QUERY TRAN NAME() SHOW(ALL) command and displays the IMS output from the command  
This command is a Type-2 command, which requires an IMSplex environment. |

**Note**

Line commands require implementation of MainView AutoOPERATOR for IMS.

---

**Fast Path Route Code Summary view (IFPRTCDR)**

The Fast Path Route Code Summary view (IFPRTCDR) lists all of the Fast Path route codes.
All route codes are listed whether they were defined statically or added dynamically. The view shows the associated PSB name and all the regions that are assigned for this route code.

**Figure 40: Fast Path Route Code Summary view (IFPRTCDR)**

<table>
<thead>
<tr>
<th>RoutCode</th>
<th>PSB Name</th>
<th>Reg1</th>
<th>Reg2</th>
<th>Reg3</th>
<th>Reg4</th>
<th>Route Code Status</th>
<th>IMSid</th>
<th>MVS</th>
<th>IMS Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDRTRNF1</td>
<td>BDRPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>CLVTRNF1</td>
<td>CLVPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>EFHTRNF1</td>
<td>EFHPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>FPSAMP1</td>
<td>DBFSAMP3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>FPTC01T</td>
<td>DBFTC01P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>GBGTRNF1</td>
<td>GBGPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>IMFTRNF1</td>
<td>IMFPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>IVTFD</td>
<td>DFSIVP4</td>
<td>Sche</td>
<td>pd</td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>IVTFM</td>
<td>DFSIVP5</td>
<td>Sche</td>
<td>pd</td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>JXKTRNF1</td>
<td>JXKPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>LXTTRNF1</td>
<td>LXTPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>MRDTRNF1</td>
<td>MRDPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
<tr>
<td>MVITRNF1</td>
<td>MVIPSBF1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Not Sched</td>
<td>I13H</td>
<td>SJSC</td>
<td>I13H51CT</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>RoutCode</td>
<td>Transaction Detail view (ITRDTLR), which shows the scheduling status, parameter status, and region statistics for a specific transaction</td>
</tr>
<tr>
<td>PSB Name</td>
<td>PSB Detail view (IPGDTLR), which provides detailed information about the selected PSB</td>
</tr>
<tr>
<td>Reg1 through Reg4</td>
<td>Region Activity Detail view (IRGNDTLR), which provides detailed information about the activity for the selected region</td>
</tr>
</tbody>
</table>

**BALG views**

The Fast Path balancing group (BALG) views summarize the processing activity of the message queues for EMH transactions.

Transaction processing can be summarized for a single IMS subsystem or operating system, for a data sharing group, or across any grouping you choose. The following BALG views are provided:

- EMH Message Processing Overview, real time (IBGSUMR)
- EMH Message Processing Overview, interval (IBGSUM)
The IBGSUMR view (shown in the following figure) is an example of a real-time BALG view. The IBGSUMR view and the IBGSUM view show how Fast Path regions are processing EMH messages.

Figure 41: Example of a BALG view (IBGSUMR)
Control transaction response time and delays

Use the response time (CORT) views to analyze and control transaction response time and delays.

Transaction response time and delays overview

Using the transaction delay analysis views, you can answer the following questions:

- Where are delays occurring?
- Which events are contributing to response time?

Response time analysis views for IMS transactions that are in progress and IMS transactions that have completed are provided. The views help you quickly determine why transaction response time is not meeting expectations so that you can take steps to resolve the problem.

You can use the CORT views to check:

- Processing delays incurred by a transaction when it tries to obtain a resource
- The resource associated with the delay
- IMS processing events occurring as transactions flow through the system (which reveals events that contribute to transaction response time)

You can also view transaction processing delays and events within a workload to determine why a MainView VistaPoint product workload is not meeting its objective.

The information in views is hierarchical. Lower-level views provide more detailed information related to information at higher levels.
Tip

To access online Help for a view, position the cursor on the view name (in the window information line) and press the **Help** key. To access help for a field, position the cursor on the field and press the **Help** key.
A visual overview of using views to control transaction response times and delays is provided in the following figure:

Figure 42: Using views to control IMS response and delays
Analyze response time problems

You can use the IMSDTLGR view to investigate response time problems.

From the IMSDTLGR view, you can hyperlink to other views that show transaction delays, processing events, or a trace of transaction occurrences (see Figure 42 on page 79).

To investigate slow response time, you might start with the following views:

- **Transaction Delays (IDLTR)**
  This view shows the major causes of delays for all IMS transactions or by workload. IDLTR identifies a delay when a transaction is waiting for a resource, and it provides hyperlinks to related views that show more detailed information.

- **Transaction Processing Events (IFCTR)**
  This view shows the major transaction flow components that affect response time for all IMS transactions or for a workload. From the IFCTR view, you can hyperlink to other views to get more information about where transactions are spending their time.

Where are delays occurring?

A high value in the UOWs **Avg Elapsed** field of the DBCDTLGR view could be caused by a transaction waiting for a resource.

Figure 43: IMS Performance Graph view (DBCDTLGR)
If the value in the **UOWs Avg Elapsed** field is high, you can hyperlink from the field to the IDLTR view, which shows the delays contributing to unit of work elapsed time.

**Figure 44: Views for determining where delays are occurring**

The IDLTR view is shown in **Figure 45 on page 82**. Use the view to:

- Quickly find out whether delays are caused by thread availability waits or by processing delays
- Determine whether eliminating any of the delay factors would decrease unit of work elapsed time to an acceptable level
- Look for possible causes of delays by hyperlinking to details about:
  - I/O delays
  - Lock delays
  - Latch delays
  - Pool delays
  - DB2 delays
Other sorts of delays

Figure 45: Transaction Delays view (IDLTR)

The IDLTR view displays information for all processed transactions. For each transaction, you can see how much elapsed execution time contributed to the transaction’s elapsed time. If a delay field is highlighted, you can hyperlink from the field to a more detailed view about the delay.

Which events are contributing to response time?

A high response time reported in the IMSDTLGR view could be caused by transaction processing events.

To check information about processing events for all transactions, access the IFCTR view, shown in Figure 46 on page 83.

You can hyperlink to the IFCTR view from the:

- Transaction Summary option in the IMS Fast Menu (EZIFAST)
- Components of Response option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISSI)

**Figure 46: Transaction Processing Events view (IFCTR)**

<table>
<thead>
<tr>
<th>Trancode ID</th>
<th>Resp</th>
<th>CPU Time</th>
<th>Avg %InputQ</th>
<th>Avg %Elapse</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>THDAMINQ</td>
<td>I12Y</td>
<td>0.1981</td>
<td>0.00187</td>
<td>75</td>
<td>****</td>
</tr>
<tr>
<td>IVTNO</td>
<td>I12Y</td>
<td>0.1271</td>
<td>0.00229</td>
<td>72</td>
<td>****</td>
</tr>
<tr>
<td>IVTNV</td>
<td>I12Y</td>
<td>0.0840</td>
<td>0.00099</td>
<td>69</td>
<td>*****</td>
</tr>
<tr>
<td>IVTFD</td>
<td>I12Y</td>
<td>0.0785</td>
<td>0.00094</td>
<td>75</td>
<td>**********</td>
</tr>
</tbody>
</table>

Use the IFCTR view to identify IMS processing events contributing to UOW elapsed time. Then you can hyperlink from highlighted fields to details about the events to determine the major contributors to elapsed time.

For example, if Avg % DLI is high, you can hyperlink from the field to view DL/I execution events and determine the cause of the long execution.

If you find a transaction with high average elapsed time in the IFCTR view, or if you find abnormal indicators in the DBCDTLGR view, you may want to access the ITALIST view, which provides a list of transaction traces and transaction data sets. From the ITALIST view, you can access additional details about transaction traces and data sets.
The views for checking completed transaction traces are shown in the following figure:

**Figure 47: Views for checking completed transaction traces**

The ITALIST view, shown in the following figure, is accessible as a menu option in the EZ menus EZIMS, EZIFAST, and EZISSI, as well as several other menus.

**Figure 48: Trace List view (ITALIST)**

Use the ITALIST view to analyze transaction performance and to obtain more information for further analysis by hyperlinking from it to:

- An expanded view for more details about a transaction or data set
The ITALMR Trace Menu, which has hyperlinks for examining trace data set details, viewing a summary of all occurrences of a selected transaction, executing trace query requests, and accessing services for managing active and history traces.

Views for transaction delay analysis

The views to manage transaction elapsed time are organized into the following groups:

- “Transaction delay views” on page 85
- “Database I/O delay views” on page 91
- “Data set I/O delay views” on page 94
- “Volume I/O delay views” on page 97
- “Lock delay views” on page 100
- “Latch delay views” on page 103

To analyze transaction delays, start with the IDLTR view, which shows all transactions and the delays that contributed to each transaction’s elapsed time. If a transaction shows an unusual elapsed time, you can hyperlink from its transaction code field to access a menu that you can use to access additional transaction delay information.

The information displayed in the delay views correlates event and sample data. The accuracy of the statistical analysis depends on the number of observations made. In each of the views, a Confidence Level column is included to reflect the accuracy of the analysis. If information shows a confidence level of None, do not spend time analyzing the information.

**Note**

To access a list of all the CORT views, enter CORT on the COMMAND line.

Transaction delay views

The following transaction delay views are provided:

- “Transaction Delays view (IDLTR)” on page 86
Transaction Delays view (IDLTR)

In the Transaction Delays view, average response time is broken down into percentages of response time the transaction spent in the input queue and in execution.

You can use the IDLTR view to quickly determine if there is a problem and whether the problem is occurring in workflow (%Inp Que) or in a processing event.

For more information, view the Quick Course MainView for IMS - Transaction, Program, & DB Status.
You must have a BMC Support ID to view the Quick Course.

---

Note
When a value of <Misc.> is displayed in the Database Name field or the Latch ID field of a transaction delay view, resources with minimal detail records were summarized into a single record.
You can access the IDLTR view by hyperlinking from the Resp Time field in the IMSDLTLGR view.

**Figure 49: Transaction Delays view (IDLTR)**

<table>
<thead>
<tr>
<th>Transcode</th>
<th>ID</th>
<th>Rate</th>
<th>Rate</th>
<th>Resp</th>
<th>%Inp</th>
<th>%CPU</th>
<th>CPU</th>
<th>I/O</th>
<th>Lck</th>
<th>Lth</th>
<th>Pol</th>
<th>Oth</th>
<th>DB2</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPL0007</td>
<td>13H</td>
<td>0.357</td>
<td>0.357</td>
<td>0.0500</td>
<td>86</td>
<td>14</td>
<td>6</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPL0008</td>
<td>13H</td>
<td>0.356</td>
<td>0.356</td>
<td>0.0165</td>
<td>94</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPL0009</td>
<td>13H</td>
<td>0.357</td>
<td>0.357</td>
<td>0.0575</td>
<td>95</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>APPL0017</td>
<td>13H</td>
<td>0.326</td>
<td>0.326</td>
<td>0.0403</td>
<td>86</td>
<td>14</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>APPL0018</td>
<td>13H</td>
<td>0.320</td>
<td>0.320</td>
<td>0.0143</td>
<td>89</td>
<td>11</td>
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<td></td>
</tr>
<tr>
<td>APPL0019</td>
<td>13H</td>
<td>0.321</td>
<td>0.321</td>
<td>0.0460</td>
<td>87</td>
<td>13</td>
<td>4</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>APPL0027</td>
<td>13H</td>
<td>0.302</td>
<td>0.302</td>
<td>0.0690</td>
<td>91</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>APPL0028</td>
<td>13H</td>
<td>0.303</td>
<td>0.303</td>
<td>0.0212</td>
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<td>7</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>APPL0029</td>
<td>13H</td>
<td>0.302</td>
<td>0.302</td>
<td>0.0763</td>
<td>96</td>
<td>4</td>
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</tr>
<tr>
<td>APPL0037</td>
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<td>0.213</td>
<td>0.213</td>
<td>0.0415</td>
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</tr>
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<td>0.213</td>
<td>0.0160</td>
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<td>9</td>
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<tr>
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<td>0.216</td>
<td>0.0532</td>
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<td>8</td>
<td>8</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMFT1H</td>
<td>13H</td>
<td>0.029</td>
<td>0.000</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>IVTNO</td>
<td>13H</td>
<td>0.741</td>
<td>0.742</td>
<td>0.0212</td>
<td>93</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THDAMINQ</td>
<td>13H</td>
<td>0.030</td>
<td>0.030</td>
<td>0.1066</td>
<td>92</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THDAMUPD</td>
<td>13H</td>
<td>0.104</td>
<td>0.104</td>
<td>0.0274</td>
<td>54</td>
<td>46</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>Transaction Delay Menu (IDLMT), where you can access more detailed information about transaction delays</td>
</tr>
<tr>
<td>I/O Dly</td>
<td>I/O Delays by Transaction (IDLTRIO), which displays the percentage of elapsed time an I/O event contributed to the transaction's response time</td>
</tr>
<tr>
<td>Lck Dly</td>
<td>Lock Delays by Transaction (IDLTRLK) displays the transactions being delayed by lock waits and the effect each lock has on response time</td>
</tr>
<tr>
<td>Lth Dly</td>
<td>Latch Delays by Transaction (IDLTRLH), which displays the transactions being delayed by latch waits and the effect each latch has on response time</td>
</tr>
<tr>
<td>Pol Dly</td>
<td>Pool Delays by Transaction (IDLTRPL), which displays the percentage of elapsed time a storage wait for a pool contributed to a transaction's response time</td>
</tr>
<tr>
<td>Oth Dly</td>
<td>Other Delays by Transaction (IDLTROT) identifies any delays that are not displayed in the other delay views</td>
</tr>
<tr>
<td>DB2 Dly</td>
<td>DB2 Delays by Transaction (IDLTRDB2), which displays the percentage of elapsed time DB2 processing waits contributed to transaction response time</td>
</tr>
</tbody>
</table>

**DB2 Delays by Transaction view (IDLTRDB2)**

The DB2 Delays by Transaction view displays the percentage of elapsed time DB2 processing waits contributed to transaction response time.
You can access the IDLTRDB2 view by hyperlinking from the %DB2 Dly field in the IDLTR view to see the effect on response time caused by DB2 delays.

Figure 50: DB2 Delays by Transaction view (IDLTRDB2)

You can hyperlink from the Trancode field to display the Transaction Delay Menu (IDLMT), where you can access more detailed information about transaction delays.

I/O Delays by Transaction view (IDLTRIO)

For each transaction processed, the I/O Delays by Transaction view displays the percentage of elapsed time an I/O event contributed to the transaction's response time.

The view identifies any I/O activity delays that occurred for:

- Database reads and writes
- PSB reads for programs
- DMB reads for a database
- Intent list reads for a program
- Program fetch
- Log write-ahead calls

You can access the IDLTRIO view by hyperlinking from the:

- %I/O Dly field in the IDLTR view of transaction delays
- **Trancode** field in the IDLTR view and then selecting the I/O Delays option from the IDLMT Transaction Delay Menu

**Figure 51: I/O Delays by Transaction view (IDLTRIO)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>X91H</td>
</tr>
<tr>
<td>ID</td>
<td>0.0282</td>
</tr>
<tr>
<td>Resp</td>
<td>71</td>
</tr>
<tr>
<td>Elp</td>
<td>33</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided in the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>%DB Dly</td>
<td>More details about database delays</td>
</tr>
<tr>
<td>Trancode</td>
<td>I/O Delay Menu (IDLMTIO), where you can access more detailed information about the I/O delays that are contributing to response time</td>
</tr>
</tbody>
</table>

**Latch Delays by Transaction view (IDLTRLH)**

The Latch Delays by Transaction view displays the transactions being delayed by latch waits and the effect each latch has on response time.

You can access the IDLTRLH view by hyperlinking from the:

- **%Lth Dly** field in the IDLTR view
- **Trancode** field in the IDLLHTR view of latch delays by transaction to see what latch delays contributed to elapsed time.

**Figure 52: Latch Delays by Transaction view (IDLTRLH)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>THIDMINQ</td>
<td>X91H</td>
</tr>
<tr>
<td>ID</td>
<td>0.0282</td>
</tr>
<tr>
<td>Latch</td>
<td>71</td>
</tr>
<tr>
<td>Avg</td>
<td>33</td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>Latch Delay Menu (IDLMTLH), where you can access more detailed information about latch delays</td>
</tr>
</tbody>
</table>
Lock Delays by Transaction view (IDLTRLK)

The Lock Delays by Transaction view displays the transactions being delayed by lock waits and the effect each lock has on response time.

You can access the IDLTRLK view by hyperlinking from the %Lck Dly field in the IDLTR view to see what lock delays contributed to elapsed time.

Figure 53: Lock Delays by Transaction view (IDLTRLK)

You can hyperlink from the Trancode field to display the Transaction Lock Delay Menu (IDLMTLK), where you can access more detailed information about lock delays.

Pool Delays by Transaction view (IDLTRPL)

For each transaction processed, the Pool Delays by Transaction view displays the percentage of elapsed time a storage wait for a pool contributed to a transaction's response time.

The view identifies any delays that occurred for the following pool storage:

- DBWP
- DMBP
- PSB
- Extended private area of a PSB pool
- FPCB

You can access the IDLTRPL view by hyperlinking from the %Pool Dly field in the IDLTR view to see what pool delays contributed to elapsed time.

Figure 54: Pool Delays by Transaction view (IDLTRPL)
You can hyperlink from the Trancode field to display the Pool Delay Menu (IDLMTPL), where you can access more detailed information about pool delays that are contributing to response time.

**Other Delays by Transaction view (IDLTROT)**

The Other Delays by Transaction view identifies any delays that occurred for:

- Database intent, allocation, open, and recovery control
- IRLM, DRBC, and DB2
- DL/I database open
- Command execution
- AO requests
- Fast Path allocation and open, buffer fix, and DMAC
- Fast Path control interval resource contention
- Log buffer wait

You can access the IDLTROT view by hyperlinking from the %Oth Dly field in the IDLTR view to see the effect on response time caused by delays other than those due to I/O activity, pool, DB2, latch, or lock waits.

**Figure 55: Other Delays by Transaction view (IDLTROT)**

You can hyperlink from the Trancode field to display the Other Delay Menu (IDLMTOT), where you can access more detailed information about transaction delays and elapsed time.

**Database I/O delay views**

The following database I/O delay views are provided:

- “Database I/O Delays view (IDLDB)” on page 92
- “Database I/O Delays by Class view (IDLDBC)” on page 92
“Database I/O Delays by Data Set view (IDLDBD)” on page 93
“Database I/O Delays by IMS view (IDLDBI)” on page 93
“Database I/O Delays by PSB view (IDLDBP)” on page 93
“Database I/O Delays by Transaction view (IDLDBTR)” on page 94
“Database I/O Delays by Volume view (IDLDBV)” on page 94

Note
When a value of <Misc.> is displayed in the DB Name or DD Name field or a value of <Misc.> is displayed in the VolSer field of a database I/O delay view, resources with minimal detail records were summarized into a single record.

Database I/O Delays view (IDLDB)

The Database I/O Delays view shows the databases that are causing I/O delays and their impact on response time.

Figure 56: Database I/O Delays view (IDLDB)

To determine the cause and impact of a high I/O delay percentage, hyperlink on the DB Name field. The hyperlink takes you to the Database I/O Delay Menu (IDLMB), where you can access more detailed delay views.

Database I/O Delays by Class view (IDLDBC)

The Database I/O Delays by Class view shows the databases causing I/O delays and the impact of the delays on the classes that are using the databases.

Figure 57: Database I/O Delays by Class view (IDLDBC)

No hyperlinks are available on the view.
**Database I/O Delays by Data Set view (IDLDBD)**

The Database I/O Delays by Data Set view breaks down the database I/O delays by the data sets used.

*Figure 58: Database I/O Delays by Data Set view (IDLDBD)*

For Fast Path, the **DD Name** field shows the Fast Path area.

No hyperlinks are available on the view.

**Database I/O Delays by IMS view (IDLDBI)**

The Database I/O Delays by IMS view shows the databases that are causing I/O delays and the impact of the delays on the IMS subsystems that are using the databases.

*Figure 59: Database I/O Delays by IMS view (IDLDBI)*

No hyperlinks are available on the view.

**Database I/O Delays by PSB view (IDLDBP)**

The Database I/O Delays by PSB view shows the databases that are causing I/O delays and the impact of the delays on the PSBs that are using the databases.

*Figure 60: Database I/O Delays by PSB view (IDLDBP)*

No hyperlinks are available on the view.
Database I/O Delays by Transaction view (IDLDBTR)

The Database I/O Delays by Transaction view shows the databases that are causing I/O delays and the impact of the delays on the transactions that are using the databases.

**Figure 61: Database I/O Delays by Transaction view (IDLDBTR)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Mainview Window Interface (Vx.x.xx)</th>
<th>COMMAND =&gt;</th>
<th>SCROLL =&gt; CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>09:53:03</td>
<td>-------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DB Name</th>
<th>Transcode</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
<th>PSB Name</th>
<th>Cls</th>
<th>VolSer</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVPDB2</td>
<td>IVTNV</td>
<td>2 *</td>
<td>2</td>
<td>2</td>
<td>DFSIVP2</td>
<td>1</td>
<td>BAB339</td>
</tr>
<tr>
<td>IVPDB3</td>
<td>IVTFD</td>
<td>92</td>
<td>15</td>
<td>38</td>
<td>DFSIVP4</td>
<td>1</td>
<td>BAB345</td>
</tr>
</tbody>
</table>

You can hyperlink from a database name in the **DB Name** field to access the IDAPSUM view, which provides information about database I/O activity at the physical database level.

Database I/O Delays by Volume view (IDLDBV)

The Database I/O Delays by Volume view breaks down the database I/O delays by the volumes used.

You can use the view to see if a volume is the cause of a database I/O delay.

You can access the IDLDBV view by hyperlinking from a **VolSer** field in the IDLDDC view of data set I/O delays by class.

**Figure 62: Database I/O Delays by Volume view (IDLDBV)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Mainview Window Interface (Vx.x.xx)</th>
<th>COMMAND =&gt;</th>
<th>SCROLL =&gt; CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>09:37:39</td>
<td>-------------------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DB Name</th>
<th>VolSer</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVPDB2</td>
<td>BAB339</td>
<td>2 *</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>IVPDB3</td>
<td>BAB345</td>
<td>23</td>
<td>15</td>
<td>36</td>
</tr>
</tbody>
</table>

You can hyperlink from a database name in the **DB Name** field to access the IDAPSUM view, which provides information about database I/O activity at the physical database level.

Data set I/O delay views

The following data set I/O delay views are provided:

- “Data Set I/O Delays view (IDLDD)” on page 95
- “Data Set I/O Delays by Class view (IDLDDC)” on page 95
The Data Set I/O Delays view shows the data sets causing I/O delays and the impact of the delays on response time.

**Figure 63: Data Set I/O Delays view (IDLDD)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Mainview Window Interface (Vx.x.xx)</th>
<th>Command</th>
<th>Scroll</th>
<th>Alt Win</th>
<th>Current Window</th>
<th>Alternate Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>09:42:23</td>
<td>MAINVIEW WINDOW INTERFACE (Vx.x.xx)</td>
<td>COMMAND</td>
<td>SCROLL</td>
<td>CSR</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;W1 =IDLDD=============IMSxxx===*========15APR2007==09:42:23====MVIMS====D====5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>W1=IDLDD</td>
</tr>
<tr>
<td>DD Name</td>
<td>%I/O Dly</td>
<td>Min</td>
<td>Max</td>
<td>VolSer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD31</td>
<td>38</td>
<td>38</td>
<td>38</td>
<td>BAB345</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD32</td>
<td>23</td>
<td>23</td>
<td>23</td>
<td>BAB345</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD33</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>BAB345</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>BAB339</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

The Data Set I/O Delays by Class view shows the data sets that are causing I/O delays and the impact of the delays on the classes that are using the data sets.

**Figure 64: Data Set I/O Delays by Class view (IDLDDC)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Mainview Window Interface (Vx.x.xx)</th>
<th>Command</th>
<th>Scroll</th>
<th>Alt Win</th>
<th>Current Window</th>
<th>Alternate Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>09:54:58</td>
<td>MAINVIEW WINDOW INTERFACE (Vx.x.xx)</td>
<td>COMMAND</td>
<td>SCROLL</td>
<td>CSR</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;W1 =IDLDDC============IMSxxx===*========15APR2007==09:54:58====MVIMS====D====5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>W1=IDLDDC</td>
</tr>
<tr>
<td>DD Name</td>
<td>Cls</td>
<td>%I/O Dly</td>
<td>Min</td>
<td>Max</td>
<td>VolSer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD31</td>
<td>1</td>
<td>31</td>
<td>31</td>
<td>31 BAB345</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD32</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25 BAB345</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD33</td>
<td>19</td>
<td>19</td>
<td>19</td>
<td>19 BAB345</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD34</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12 BAB345</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Data Set I/O Delays by IMS view (IDLDDI)

The Data Set I/O Delays by IMS view shows the data sets that are causing I/O delays and the impact of the delays on the IMS subsystems that are using the data sets.

Figure 65: Data Set I/O Delays by IMS view (IDLDDI)

<table>
<thead>
<tr>
<th>DD Name</th>
<th>ID</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
<th>VolSer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFSIVD1</td>
<td>X71H</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>BAB361</td>
</tr>
<tr>
<td>DFSIVD2</td>
<td>X71H</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>BAB339</td>
</tr>
<tr>
<td>DFSIVD31</td>
<td>X71H</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>BAB345</td>
</tr>
<tr>
<td>DFSIVD32</td>
<td>X71H</td>
<td>28</td>
<td>28</td>
<td>28</td>
<td>BAB345</td>
</tr>
<tr>
<td>DFSIVD33</td>
<td>X71H</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>BAB345</td>
</tr>
<tr>
<td>DFSIVD34</td>
<td>X71H</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>BAB345</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Data Set I/O Delays by PSB view (IDLDDP)

The Data Set I/O Delays by PSB view shows the data sets that are causing I/O delays and the impact of the delays on the PSBs that are using the data sets.

Figure 66: Data Set I/O Delays by PSB view (IDLDDP)

<table>
<thead>
<tr>
<th>DD Name</th>
<th>PSB Name</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
<th>VolSer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFSIVD1</td>
<td>DFSIVP1</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>BAB361</td>
</tr>
<tr>
<td>DFSIVD2</td>
<td>DFSIVP2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>BAB339</td>
</tr>
<tr>
<td>DFSIVD31</td>
<td>DFSIVP4</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>BAB345</td>
</tr>
<tr>
<td>DFSIVD32</td>
<td>DFSIVP4</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>BAB345</td>
</tr>
<tr>
<td>DFSIVD33</td>
<td>DFSIVP4</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>BAB345</td>
</tr>
<tr>
<td>DFSIVD34</td>
<td>DFSIVP4</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>BAB345</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Data Set I/O Delays by Transaction view (IDLDDTR)

The Data Set I/O Delays by Transaction view shows the data sets that are causing I/O delays and the impact of the delays on the transactions that are using the data sets.
Figure 67: Data Set I/O Delays by Transaction view (IDLDDTR)

<table>
<thead>
<tr>
<th>DD Name</th>
<th>Trancode</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFSIVD1</td>
<td>IVTNO</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DFSIVD1</td>
<td>IVTNV</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>DFSIVD31</td>
<td>IVTFD</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>DFSIVD32</td>
<td>IVTFD</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>DFSIVD33</td>
<td>IVTFD</td>
<td>21</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>DFSIVD34</td>
<td>IVTFD</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Data Set I/O Delays by Volume view (IDLDDDV)**

The Data Set I/O Delays by Volume view breaks down the data sets causing I/O delays by the volumes used.

You can use the view to see if a volume is the cause of a data set I/O delay.

You can access the IDLDDDV view by hyperlinking from the VolSer field in the:

- IDLDDD view of I/O delays by data set
- IDLDDDI view of data set I/O delays by IMS
- IDLDDDP view of data set I/O delays by PSB
- IDLDDTR view of data set I/O delays by transaction

Figure 68: Data Set I/O Delays by Volume view (IDLDDDV)

<table>
<thead>
<tr>
<th>DD Name</th>
<th>VolSer</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFSIVD1</td>
<td>BAB361</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>DFSIVD1</td>
<td>BAB361</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>DFSIVD31</td>
<td>BAB345</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>DFSIVD32</td>
<td>BAB345</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>DFSIVD33</td>
<td>BAB345</td>
<td>26</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>DFSIVD34</td>
<td>BAB345</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
</tbody>
</table>

For Fast Path, the DD Name field shows the Fast Path area.

No hyperlinks are available on the IDLDDDV view.

**Volume I/O delay views**

The following volume I/O delay views are available:
“Volume I/O Delays view (IDLVL)” on page 98
“Volume I/O Delays by Class view (IDLVLC)” on page 98
“Volume I/O Delays by Database view (IDLVLDB)” on page 99
“Volume I/O Delays by Data Set view (IDLVLDD)” on page 99
“Volume I/O Delays by IMS view (IDLVLI)” on page 99
“Volume I/O Delays by PSB view (IDLVLP)” on page 100
“Volume I/O Delays by Transaction view (IDLVLTR)” on page 100

Note
When a value of <Misc.> is displayed in the VolSer field or a value of <Misc.> is displayed in the DB Name or DD Name field of a volume I/O delay view, resources with minimal detail records were summarized into a single record.

Volume I/O Delays view (IDLVL)

The Volume I/O Delays view shows the volumes that are causing I/O delays and the impact of the delays on elapsed time.

Figure 69: Volume I/O Delays view (IDLVL)

<table>
<thead>
<tr>
<th>15APR2007 09:51:58</th>
<th>MAINVIEW WINDOW INTERFACE (Vx.x.xx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND</td>
<td>SCROLL ----&gt; PAGE</td>
</tr>
<tr>
<td>CURR WIN</td>
<td>ALT WIN ----&gt;</td>
</tr>
<tr>
<td>&gt;W1 =IDLVL</td>
<td>IMSxxxxxxxxx-----------15APR2007==09:51:58==MVIMS==D==3</td>
</tr>
<tr>
<td>%I/O Dly Min Max</td>
<td></td>
</tr>
<tr>
<td>VolSer BAB345 25 **</td>
<td>12 50</td>
</tr>
<tr>
<td>BAB345 6 **</td>
<td>6 6</td>
</tr>
<tr>
<td>BAB361 4 **</td>
<td>4 4</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Volume I/O Delays by Class view (IDLVLC)

The Volume I/O Delays by Class view shows the volumes that are causing I/O delays and the impact of the delays on the classes that are using the volumes.

Figure 70: Volume I/O Delays by Class view (IDLVLC)

<table>
<thead>
<tr>
<th>15APR2007 09:59:23</th>
<th>MAINVIEW WINDOW INTERFACE (Vx.x.xx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND</td>
<td>SCROLL ----&gt; CSR</td>
</tr>
<tr>
<td>CURR WIN</td>
<td>ALT WIN ----&gt;</td>
</tr>
<tr>
<td>&gt;W1 =IDLVLC</td>
<td>IMSxxxxxxxxx-----------15APR2007==09:59:22==MVIMS==D==3</td>
</tr>
<tr>
<td>%I/O Dly Min Max</td>
<td></td>
</tr>
<tr>
<td>VolSer Cls BAB345 1</td>
<td>6 6</td>
</tr>
<tr>
<td>BAB339 6 **</td>
<td>6 6</td>
</tr>
<tr>
<td>BAB361 4 **</td>
<td>4 4</td>
</tr>
</tbody>
</table>
No hyperlinks are available on the view.

Volume I/O Delays by Database view (IDLVLDB)

The Volume I/O Delays by Database view shows the volumes that are causing I/O delays and the impact of the delays on the databases that are using the volumes.

Figure 71: Volume I/O Delays by Database view (IDLVLDB)

<table>
<thead>
<tr>
<th>Date</th>
<th>Command</th>
<th>Current Window</th>
<th>Alternate Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>SCROLL ==&gt; CSR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume Ser</th>
<th>DB Name</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAB339</td>
<td>IVPDB2</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BAB345</td>
<td>IVPDB3</td>
<td>30</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>BAB361</td>
<td>IVPDB1</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Volume I/O Delays by Data Set view (IDLVLDD)

The Volume I/O Delays by Data Set view shows the volumes that are causing I/O delays and the impact of the delays on the data sets that are using the volumes.

Figure 72: Volume I/O Delays by Data Set view (IDLVLDD)

<table>
<thead>
<tr>
<th>Date</th>
<th>Command</th>
<th>Current Window</th>
<th>Alternate Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>SCROLL ==&gt; CSR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume Ser</th>
<th>DD Name</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAB339</td>
<td>DFSIVD2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>BAB345</td>
<td>DFSIVD31</td>
<td>67</td>
<td>67</td>
<td>67</td>
</tr>
<tr>
<td>BAB345</td>
<td>DFSIVD33</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>BAB345</td>
<td>DFSIVD34</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>BAB361</td>
<td>DFSIVD1</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Volume I/O Delays by IMS view (IDLVLII)

The Volume I/O Delays by IMS view shows the volumes that are causing I/O delays and the impact of the delays on the IMS subsystems that are using the volumes.

Figure 73: Volume I/O Delays by IMS view (IDLVLII)

<table>
<thead>
<tr>
<th>Date</th>
<th>Command</th>
<th>Current Window</th>
<th>Alternate Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>SCROLL ==&gt; CSR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volume Ser</th>
<th>IMS</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAB339</td>
<td>X91H</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BAB345</td>
<td>X91H</td>
<td>33</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>BAB361</td>
<td>X91H</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Volume I/O Delays by PSB view (IDLVLP)

The Volume I/O Delays by PSB view shows the volumes that are causing I/O delays and the impact of the delays on the PSBs that are using the volumes.

Figure 74: Volume I/O Delays by PSB view (IDLVLP)

<table>
<thead>
<tr>
<th>VolSer PSB Name</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
<th>%Dly</th>
<th>%Dly Cls</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAB339 DFSIVP2</td>
<td></td>
<td>3</td>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>BAB345 DFSIVP4</td>
<td></td>
<td>33</td>
<td></td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td>BAB361 DFSIVP1</td>
<td></td>
<td>8</td>
<td></td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Volume I/O Delays by Transaction view (IDLVLTR)

The Volume I/O Delays by Transaction view shows the volumes that are causing I/O delays and the impact of the delays on the transactions that are using the volumes.

Figure 75: Volume I/O Delays by Transaction view (IDLVLTR)

<table>
<thead>
<tr>
<th>VolSer PSB Name</th>
<th>%I/O Dly</th>
<th>Min</th>
<th>Max</th>
<th>%Dly</th>
<th>%Dly Cls</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAB339 DFSIVP2</td>
<td></td>
<td>3</td>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>BAB345 DFSIVP4</td>
<td></td>
<td>33</td>
<td></td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td>BAB361 DFSIVP1</td>
<td></td>
<td>8</td>
<td></td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Lock delay views

The following lock delay views are provided:

- “Lock Delays view (IDLLK)” on page 101
- “Lock Delays by Class view (IDLLKC)” on page 101
- “Lock Delays by IMS view (IDLLKI)” on page 101
- “Lock Delays by PSB view (IDLLKP)” on page 102
- “Lock Delays by Transaction view (IDLLKTR)” on page 102
When a value of <Misc.> is displayed in the **Database Name** field of a lock delay view, resources with minimal detail records were summarized into a single record.

---

**Lock Delays view (IDLLK)**

The Lock Delays view shows the locks causing transaction delays and their impact on response time.

**Figure 76: Lock Delays view (IDLLK)**

```
15APR2007  09:56:36 ------ MAINVIEW WINDOW INTERFACE (Vx.x.xx) -----------
COMMAND ===>                                                   SCROLL ===> HALF
CURR WIN ===> 1        ALT WIN ===>  
W1 =IDLLK-------------IMSxxx=*--------15APR2007==09:56:36===MVIMS=====D=====4
CMD Database DCB RBA/Type     Avg % Dly      Min  Max  Confidence Sharing
--- Name---- --- --------     0.....10....20 %Dly %Dly Level      Group
CUSTHISM   1       12  19 *************    19   19 None
CUSTHISM   1        E  15 ***********      15   15 None
CUSTINDX   1        1   9 ******            9    9 None
<Misc..>                1 *                 1    1 None
```

No hyperlinks are available on the view.

---

**Lock Delays by Class view (IDLLKC)**

The Lock Delays by Class view shows the locks causing delays and the impact on a class.

You can access the IDLLKC view by hyperlinking from a Cls field in the IDLLKTR view of lock delays by transaction.

**Figure 77: Lock Delays by Class view (IDLLKC)**

```
15APR2007  09:59:46 ------ MAINVIEW WINDOW INTERFACE (Vx.x.xx) -----------
COMMAND ===>                                                   SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>  
W1 =IDLLKTR==IDLLKC===IMSxxx=*--------15APR2007==09:59:46===MVIMS=====D=====2
Avg % Dly              Min  Max
DB Name  DCB# RBA/Type Cls     0.......10.......20 %Dly %Dly
CUSTHISM    1        E   1  15 ************             15   15
CUSTHISM    1       12   1  19 ****************         19   19
```

No hyperlinks are available on the view.

---

**Lock Delays by IMS view (IDLLKI)**

The Lock Delays by IMS view shows the locks causing delays and the impact on an IMS subsystem.
Views for transaction delay analysis

No hyperlinks are available on the view.

**Lock Delays by PSB view (IDLLKP)**

The Lock Delays by PSB view shows the locks causing delays and the impact on a PSB.

You can access the IDLLKP view by hyperlinking from a **PSB Name** field in the IDLLKTR view of lock delays by transaction.

No hyperlinks are available on the view.

**Lock Delays by Transaction view (IDLLKTR)**

The Lock Delays by Transaction view shows the lock causing delays and the impact on each transaction.

No hyperlinks are available on the view.
Latch delay views

The following latch delay views are provided:

- “Latch Delays view (IDLLH)” on page 103
- “Latch Delays by Class view (IDLLHC)” on page 103
- “Latch Delays by IMS view (IDLLHI)” on page 104
- “Latch Delays by PSB view (IDLLHP)” on page 104
- “Latch Delays by Transaction view (IDLLHTR)” on page 105

**Note**
When a value of <Misc.> is displayed in the Latch ID field of a latch delay view, resources with minimal detail records were summarized into a single record.

Latch Delays view (IDLLH)

The Latch Delays view shows the latches causing transaction delays and their impact on response time.

**Figure 81: Latch Delays view (IDLLH)**

You can hyperlink from the Latch ID field to display the Latch Delay Menu (IDLMH), where you can access views you can use to determine what is causing a latch delay.

Latch Delays by Class view (IDLLHC)

The Latch Delays by Class view shows the latches causing delays and the impact on a class.
You can access this view by hyperlinking from a Cls field in the IDLLHTR view of latch delays by transaction.

**Figure 82: Latch Delays by Class view (IDLLHC)**

<table>
<thead>
<tr>
<th>Latch</th>
<th>Avg % Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

### Latch Delays by IMS view (IDLLHI)

The Latch Delays by IMS view shows the latches causing delays and the impact on an IMS subsystem.

You can access the IDLLHI view by hyperlinking from an IMS ID field in the IDLLHTR view of latch delays by transaction.

**Figure 83: Latch Delays by IMS view (IDLLHI)**

<table>
<thead>
<tr>
<th>Latch</th>
<th>IMS</th>
<th>Avg % Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc.</td>
<td>Y19H</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

### Latch Delays by PSB view (IDLLHP)

The Latch Delays by PSB view shows the latches causing delays and the impact on a PSB.

You can access the IDLLHP view by hyperlinking from a PSB Name field in the:

- IDLLHTR view of latch delays by transaction
- IDLTRLH view of latch delays by latch

**Figure 84: Latch Delays by PSB view (IDLLHP)**

<table>
<thead>
<tr>
<th>Latch</th>
<th>PSB Name</th>
<th>Avg % Dly</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc.</td>
<td>PHDAMINQ</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
views for transaction response analysis

The views you use to identify the transaction processing events that are contributing to transaction response time are categorized as components of transaction flow through IMS.

To analyze transaction response, start with the IFCTR view, where you can:

- Look at processing events for all transactions
- See the IMS processing events that contributed to each transaction’s response time
- Determine where transactions spend their time during IMS processing

From the IFCTR view, select a transaction you are interested in, and then hyperlink from it to access the IFCMT Transaction Processing Menu, an object menu that provides hyperlinks to additional CORT views.

The following IMS transaction processing event views are provided:

- “Transaction Processing Events view (IFCTR)” on page 106
- “Transaction DB2 Processing view (IFCTR2)” on page 107
- “Transaction Application Processing view (IFCTRA)” on page 108
- “Transaction DL/I Processing view (IFCTRD)” on page 109
The information displayed in the views correlates event and sample data. The accuracy of the statistical analysis depends on the number of observations made. In each of the views, a Confidence Level column is included to reflect the accuracy of the analysis. If information shows a confidence level of None, do not spend time analyzing the information.

Note
To access a list of all the CORT views, enter CORT on the COMMAND line.

Transaction Processing Events view (IFCTR)

In the Transaction Processing Events view, average response time is broken down into percentages of response time the transaction spent in the input queue and in execution.

You can use the information to quickly determine if there is a problem and whether the problem is occurring in workflow (Avg %InputQ) or in a processing event (Avg %Elapse). The other columns break down the events that occurred as IMS processed the transaction. A high percentage in any of those columns indicates where a potential problem could exist. For example, if Avg Appl is high, you can hyperlink to a view of application processing for that transaction to see what process may be contributing to the event.

You can hyperlink to the IFCTR view from the:

- Transaction Summary option in the IMS Fast Menu (EZIFAST)
- Components of Response option in the IMS Easy Menu (EZIMS)
Components of Response option in the IMS SSI Easy Menu (EZISSI)

**Figure 86: Transaction Processing Events view (IFCTR)**

<table>
<thead>
<tr>
<th>Trancode ID</th>
<th>Rate</th>
<th>Rate</th>
<th>CPU Time</th>
<th>Avg %InputQ</th>
<th>Avg %Elapse</th>
</tr>
</thead>
<tbody>
<tr>
<td>THDAMINQ I13H</td>
<td>0.030</td>
<td>0.030</td>
<td>0.00551</td>
<td>4 *</td>
<td>75 **********</td>
</tr>
<tr>
<td>THDAMUPD I13H</td>
<td>0.090</td>
<td>0.090</td>
<td>0.00138</td>
<td>54 *********</td>
<td>46 **********</td>
</tr>
<tr>
<td>IVTNO I13H</td>
<td>0.756</td>
<td>0.758</td>
<td>0.00142</td>
<td>54 *********</td>
<td>37 *******</td>
</tr>
<tr>
<td>IMFT1H I13H</td>
<td>0.030</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>Transaction Processing Menu (IFCMT), where you can access more detailed information about the IMS processing events contributing to response time</td>
</tr>
<tr>
<td>Avg %InputQ</td>
<td>Transaction Input Queue Processing (IFCTRQ), shows the average amount of time a message spent in the input queue and the impact on a transaction response time</td>
</tr>
<tr>
<td>% Appl</td>
<td>Transaction Application Processing (IFCTRA), which shows the average amount of time a transaction spent in application processing</td>
</tr>
<tr>
<td>DLI</td>
<td>Transaction DL/I Processing (IFCTR2), which shows the average amount of time a transaction spent in DL/I execution</td>
</tr>
<tr>
<td>DB2</td>
<td>Transaction DB2 Processing (IFCTR2), which shows the average amount of time a transaction spent in DB2 processing</td>
</tr>
</tbody>
</table>

**Transaction DB2 Processing view (IFCTR2)**

The Transaction DB2 Processing view shows the average amount of time a transaction spent in DB2 processing.

The view shows the amount of time spent processing a call or waiting for CPU and the impact on transaction response time.

You can hyperlink to the IFCTR2 view from the:

- Avg % DB2 field in the IFCTR view
• DB2 option under Components of Response Time in the IMS Fast Menu (EZIFAST)

**Figure 87: Transaction DB2 Processing view (IFCTR2)**

| 15APR2007 | 10:49:13 | ------ | MAINVIEW WINDOW INTERFACE (Vx.x.xx) | ----------- |
| COMMAND | ===|> | SCROLL|===| CSR |
| CURR WIN | ===|> | ALT WIN | ===|>
| >W1 =IFCTR==IFCTR2===IMSxxx==*==15APR2007==10:49:12==MVIMS==D==4 |
| IMS Avg | Avg % DB2 | %CPU | CPU | DB2 |
| Trancode ID | Resp | 0...15...30 | Act | Dly | Wait |
| IVTFM | X91H | 0.0000 |
| IVTNO | X91H | 0.0209 | 3 ** |
| IVTNV | X91H | 0.0160 |
| IVTFD | X91H | 0.0012 |

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>DB2 Menu (IFCMT2), where you can access detailed information about transaction processing events and delays</td>
</tr>
</tbody>
</table>

**Transaction Application Processing view (IFCTRA)**

The Transaction Application Processing view shows the average amount of time a transaction spent in application processing.

The view shows where time was spent, such as waiting for CPU to be available (%CPU Dly) or program fetch and load delay (%F/L Dly), and the impact on transaction response time.

You can hyperlink to the IFCTRA view from the:

• **Avg % Appl** field in the IFCTR view

• Applications option under Components of Response Time in the IMS Fast Menu (EZIFAST)

**Figure 88: Transaction Application Processing view (IFCTRA)**

| 15APR2007 | 10:32:01 | ------ | MAINVIEW WINDOW INTERFACE (Vx.x.xx) | ----------- |
| COMMAND | ===|> | SCROLL|===| CSR |
| CURR WIN | ===|> | ALT WIN | ===|>
| >W1 =IFCTR==IFCTRA==IMSxxx==*==15APR2007==10:32:01==MVIMS==D==4 |
| IMS Avg | Avg % Appl | %CPU | CPU | I/O | F/L | SVC | Othr |
| Trancode ID | Resp | 0...25...50 | Act | Dly | Dly | Dly | Dly |
| IVTFM | X91H | 0.0000 |
| IVTNV | X91H | 0.0160 |
| IVTNO | X91H | 0.0209 |
| IVTFD | X91H | 0.0012 |

You can hyperlink from the **Trancode** field to display the Application Menu (IFCMTA), where you can access detailed information about transaction processing events and delays.
Transaction DL/I Processing view (IFCTRD)

The Transaction DL/I Processing view shows the average amount of time a transaction spent in DL/I execution.

The view shows where time was spent and the impact on transaction response time.

You can hyperlink to the IFCTRD view from the:

- **Avg % DLI** field in the IFCTR view
- **DLI** option under Components of Response Time in the IMS Fast Menu (EZIFAST)

Figure 89: Transaction DL/I Processing view (IFCTRD)

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>DL/I Menu (IFCMTD), where you can access detailed information about transaction processing events and delays</td>
</tr>
</tbody>
</table>

Transaction DL/I Call Processing view (IFCTRI)

The Transaction DL/I Call Processing view shows the average amount of time a transaction spent in DL/I call processing.

The view shows where time was spent and the impact on transaction response time.

You can hyperlink to the IFCTRI view from the **Avg % Call** field in the IFCTDR view.

Figure 90: Transaction DL/I Call Processing view (IFCTRI)
You can hyperlink from the **Trancode** field to display the DL/I Call Menu (IFCMTI), where you can access detailed information about transaction processing events and delays.

### Transaction Sync Point Processing view (IFCTRP)

The Transaction Sync Point Processing view shows the average amount of time a transaction spent in sync point processing.

The view shows where time was spent by the IMS sync point manager in acquiring resources and the impact on transaction response time.

You can hyperlink to the IFCTRP view from the **Avg% Sync** field in the IFCTRD view.

**Figure 91: Transaction Sync Point Processing view (IFCTRP)**

<table>
<thead>
<tr>
<th>Trancode</th>
<th>Resp</th>
<th>Avg % Sync</th>
<th>%CPU</th>
<th>CPU</th>
<th>I/O</th>
<th>Lck</th>
<th>Lch</th>
<th>Oth</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVTNV</td>
<td>X91H</td>
<td>0.0129</td>
<td>37</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You can hyperlink from the **Trancode** field to display the Sync Point Menu (IFCMTP), where you can access detailed information about transaction processing events and delays.

### Transaction Input Queue Processing view (IFCTRQ)

The Transaction Input Queue Processing view shows the average amount of time a message spent in the input queue and the impact on a transaction response time.

Input queue time includes backout time for requeuing a transaction if the transaction did not execute successfully.

You can hyperlink to the IFCTRQ view from the **Avg %InputQ** field in the IFCTR view.

**Figure 92: Transaction Input Queue Processing view (IFCTRQ)**

<table>
<thead>
<tr>
<th>Trancode</th>
<th>Resp</th>
<th>Avg %InputQ</th>
<th>Avg %BackOut</th>
<th>Avg%</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVTNV</td>
<td>X91H</td>
<td>0.0129</td>
<td>0.0129</td>
<td>0</td>
</tr>
</tbody>
</table>
No hyperlinks are available on the view.

**Transaction ROLS Processing view (IFCTRR)**

The Transaction ROLS Processing view shows the average amount of time a transaction spent in ROLS processing.

The view shows where time was spent and the impact on transaction response time.

You can hyperlink to the IFCTRR view from the **Avg% ROLS** field in the IFCTRD view.

![Figure 93: Transaction ROLS Processing view (IFCTRR)](image)

You can hyperlink from the **Trancode** field to display the ROLS Menu (IFCMTR), where you can access detailed information about transaction processing events and delays.

**Transaction Scheduling Processing view (IFCTRS)**

The Transaction Scheduling Processing view shows the average amount of time a transaction spent in scheduling.

The view shows where time was spent by the IMS scheduler in acquiring resources and the impact on transaction response time.

You can hyperlink to the IFCTRS view from the **Avg% Schd** field in the IFCTRQ view.

![Figure 94: Transaction Scheduling Processing view (IFCTRS)](image)
You can hyperlink from the **Trancode** field to display the Scheduling Menu (IFCMTS), where you can access detailed information about transaction processing events and delays.
Examine a user application with transaction tracing

Use transaction tracing to identify problem trends occurring with a user application, transaction, or program. Transaction tracing consists of data collection and views.

Transaction tracing overview

Views and commands are provided with which you can start, stop, and manage traces; view trace data; and manage trace logs.

When you trace a transaction, you can:

- Qualify a trace by workload selection or by exception filters to limit the trace (for example, by database name or high elapsed time)
- Set automatic start and stop times for the trace when you think the most activity will occur
- Use views where you can see a list of transaction trace entries and expand to summarized trace data or detailed trace events for a selected transaction

There are different types of transaction traces and different types of transaction trace views.

When you request a trace, you can also ask for the trace data to be recorded to external VSAM data sets, called trace log data sets, for later viewing. Trace log data sets can store summary and detail traces.

Trace logging provides the following capabilities:

- Log data sets for each trace request
  
  Each trace request can be assigned its own log data sets, which allows dynamic application traces to be managed separately from system-wide, continuous workload traces, or system exception traces.
- Flexible space management
  Each trace can be logged to single or multiple data sets either manually preallocated or dynamically allocated and managed by the transaction trace administration views.

- User-selected logging options
  A trace can be logged by using option defaults or by specifying values for all of the options for complete control.

- Viewing of active trace data online
  The transaction trace information views (ITAL* and ITAS*) can be used to see the current data from an active trace or from one being logged to a data set.

- Viewing of historical trace data at any time
  The History Trace (HT) view displays the data sets tracked in the trace directory. You can view the data recorded in these data sets whether the trace was written the same day, last night, a year ago, or even on another system.

- Tracing of very large applications
  Long-running applications can be traced without loss of data because of online trace storage buffer limitations.

## Types of transaction traces

Transaction tracing provides the following types of traces:

<table>
<thead>
<tr>
<th>Trace type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>Response time of the transaction, the application CPU time, the IMS CPU time, the number of database calls (DL/I and DB2), and the number of I/Os</td>
</tr>
<tr>
<td>Detail</td>
<td>Each type of database call, its return code and elapsed time (in the order processed), the name of the database accessed, and associated database I/O data and segment search argument, key feedback, and I/O area data If a transaction has DB2, CICS, or WebSphere MQ events associated with it, those events are also displayed. Detail trace can be used to debug complex application performance problems associated with the execution of a specific transaction. This data can be saved to data sets for later reference or use on another system.</td>
</tr>
<tr>
<td>Abbreviated</td>
<td>General performance statistics, such as response time, elapsed time, DLI and DB2 call counts, and DLI and DB2 CPU time (with reduced DASD requirements)</td>
</tr>
</tbody>
</table>
Types of transaction trace views

The following types of views are provided for transaction traces:

■ Transaction trace information views
  Transaction trace information views list traces and display trace data. For more information about transaction trace information views, see “Available transaction trace information views” on page 122.

■ Transaction trace administration views
  Transaction trace administration views list traces, display trace data, and provide commands for managing traces and trace logs. For more information about transaction trace administration views, see “Transaction trace administration” on page 138.

Set up trace logging

Before any trace can be started with trace logging, the following items must be in place:

■ A trace directory must be allocated, initialized, and identified to BBI.
  The trace directory keeps track of all trace log data sets. There is one trace directory per BBI-SS PAS that is dynamically allocated when the BBI-SS PAS starts. It is a VSAM linear data set containing one entry for each trace log data set. Each entry indicates the date and time of data set creation, the current status of the data set, the trace target, and other related information. Entries can be added to or deleted from the directory with the History Traces application.
  You can set up the trace directory manually or have it set up during customization.

■ One or more trace log data sets must be allocated.
  When you request a trace, you can specify options to dynamically allocate trace log data sets or you can use sample batch jobs to preallocate the data sets.

For information about:

■ Setting up the trace directory manually, see the MainView for IMS and MainView for DBCTL Customization Guide

■ Setting up the trace log data sets manually, see the MainView for IMS and MainView for DBCTL Customization Guide

■ Maintaining the trace directory and the trace log data sets, see “Transaction trace administration” on page 138
Request a transaction trace

When you request a trace, a data entry dialog is opened.

Using this dialog, you can specify the type of trace to start, specify whether to use trace logging, and specify trace selection criteria and exception filters.

When you request a transaction trace, you can specifying the following information:

- Name and title for the trace
- Start and stop time for the trace
- Type of trace to perform
- Trace buffer information
- Trace logging information
- Actions to take when a target is not active
- Selection criteria and exception filters to limit the amount of data saved

Methods for requesting a transaction trace

There are several ways to start a transaction trace:

- Request a trace online by using the ST primary command. (See “Starting a transaction trace online” on page 118.)
  
  You can also replicate an existing trace as a starting point to request a new trace. (See “Starting a transaction trace by using replication” on page 120.)

- Define a SET timer request in a BBI-SS PAS BBPARM data set member that can be started automatically when the system starts or started manually at your request.

For more information, view the Quick Course MainView for IMS - Managing IMS Traces. You must have a BMC Support ID to view the Quick Course.
Define a MainView AutoOPERATOR product EXEC.

Use the IMFEXEC IMF command followed by the service name, optional parameters, and an identifier for the target system. (See the MainView AutoOPERATOR Advanced Automation Guide.) For example:

```
IMFEXEC IMFC SET REQ=MTRAC TRAN=PAY+ TARGET=IMSVS
```

**Note**

To collect DBCTL thread data, CICS=YES or CICS=ONLINE must be specified in BBPARM member IMFECP00. For information about IMFECP00, see the MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the CICS parameter, use the IECPSUMR view.

---

**Qualifying selection criteria options**

When you request a transaction trace, you can use a plus sign qualifier for the following selection criteria options:

- **PROG**
- **PSB**
- **REGION**
- **TERM**
- **TRAN**
- **USERID**
- **DATABASE**

The plus sign qualifier can be used generically or positionally:

- As a generic resource name qualifier, the plus sign cannot be followed by any other character. For example, REGION=CICS+ traces only regions whose names begin with CICS.

- As a positional qualifier, the plus sign must be repeated for every character to be replaced. For example, TRAN=A++N+ traces all events that have an identifiable transaction code with an A character in the first position, any two characters before the N, and any character following the N.
Starting a transaction trace online

Use the following information to start a transaction trace online.

For more information, view the Quick Course Managing IMS traces. You must have a BMC Support ID to view the Quick Course.

To start a trace

1. Type **ST** on the COMMAND line of any view and press **Enter**.

   The Start IMS Trace Request dialog is displayed, as shown in the following figure.

   For additional information about a field, place the cursor in the field and press **F1** for online Help.

   **Figure 95: Start IMS Trace Request dialog, page 1**

<table>
<thead>
<tr>
<th>COMMAND ===&gt;</th>
<th>SCROLL ===&gt;</th>
<th>CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trace Attributes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARM</td>
<td>(Trace Identifier)</td>
<td>START</td>
</tr>
<tr>
<td>TYPE</td>
<td>S</td>
<td>(S-Summary,D-Detail)</td>
</tr>
<tr>
<td>A-Abbrev Summary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STORAGE 200K</td>
<td>(Display Buffer Size)</td>
<td>WRAP</td>
</tr>
<tr>
<td>LOGTRAC N</td>
<td>(Y/N log trace)</td>
<td>RST</td>
</tr>
<tr>
<td>QIS</td>
<td>YES</td>
<td>(YES/NO)</td>
</tr>
<tr>
<td>TITLE</td>
<td>WORKLOAD TRACE</td>
<td></td>
</tr>
<tr>
<td>Specify additional trace options: (*-processed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selection Criteria</td>
<td>N (Y/N)</td>
<td></td>
</tr>
<tr>
<td>Exception Filters</td>
<td>N (Y/N)</td>
<td></td>
</tr>
<tr>
<td>Trace Log Data Set Options</td>
<td>N (Y/N)</td>
<td></td>
</tr>
<tr>
<td>Additional Trace Targets</td>
<td>N (Y/N)</td>
<td></td>
</tr>
<tr>
<td>ENTER to process the request</td>
<td></td>
<td></td>
</tr>
<tr>
<td>END to cancel the request</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HELP to display related help</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Ensure that the region name shown in the **Target** field is the region in which you want to start the trace.

3. Specify the trace attributes, as described in the following table:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARM</td>
<td>Unique name for the trace</td>
<td>Blanks</td>
</tr>
<tr>
<td>Field</td>
<td>Description</td>
<td>Default</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TYPE</td>
<td>Type of transaction trace to perform</td>
<td>S (Summary), a summarized trace is performed</td>
</tr>
<tr>
<td>START</td>
<td>Start time of the trace</td>
<td>Current time</td>
</tr>
<tr>
<td>STOP</td>
<td>Stop time of the trace</td>
<td>Trace continues indefinitely</td>
</tr>
<tr>
<td>STORAGE</td>
<td>Size of the trace display buffer</td>
<td>As specified in IMFBEX00 or in BBIISPxx if IMFBEX00 is not defined</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For information about IMFBEX00, see the MainView for IMS and MainView for DBCTL Customization Guide. To determine the current settings of the STORAGE parameter, use the IBEXSUMR view.</td>
</tr>
<tr>
<td>LOGTRAC</td>
<td>Whether to perform trace logging for this trace</td>
<td>N, no trace logging is performed</td>
</tr>
<tr>
<td>WRAP</td>
<td>Determines the trace data wrap in the PAS trace buffer</td>
<td>YES, new data overlays old data</td>
</tr>
<tr>
<td>RST</td>
<td>Restart option to be used when a service is quiesced because of an inactive target region</td>
<td>HOT, restarts the trace automatically without loss of previous data</td>
</tr>
<tr>
<td>QIS</td>
<td>Action to be taken when an IMS target is not active</td>
<td>YES, the service is quiesced</td>
</tr>
<tr>
<td>TITLE</td>
<td>Display title for the trace</td>
<td>Name of the service</td>
</tr>
</tbody>
</table>

4. *(optional)* Specify additional trace options:

- Selection Criteria: Limit the amount of data saved.
- Exception Filters: Limit the amount of data saved by exceptions.
- Trace Log Data Set Options: Record traces to external VSAM data sets.

Take the following steps for each option:

- Type **Y** in an additional option field and press **Enter**.
  
  A list of options is displayed. For information about each option, place the cursor in the field and press **F1** for online Help.

- Specify values for the options and press **Enter**.
  
  The Start IMS Trace Request dialog is displayed with an asterisk in the selected additional option field.

---

Chapter 5 Examine a user application with transaction tracing 119
5 To start a trace on one or more systems, use one of the following methods:

- Specify a target system in the Context field.
- Type Y in the Additional Trace Targets field, press Enter, select target systems from the displayed list (use the Target Filter field to limit the systems listed), and press Enter.

The Start IMS Trace Request dialog is displayed with an asterisk in the Additional Trace Targets field.

6 (optional) Adjust the values you entered:

- For the trace attributes, type over any of the values.
- For the Selection Criteria and Exception Filters options, repeat Step 4 on page 119, changing or deleting the values you specified. Alternatively, you can type N in either option field to ignore all of the values you specified.
- For the Trace Log Data Set Options, repeat Step 5 on page 120, changing or deleting the values you specified, or in the Trace Log Data Set Options dialog, type RESET to change all the values to their default settings. Alternatively, you can type N in the option field to ignore all of the values you specified.
- For the Additional Trace Targets option, repeat Step 5 on page 120, changing the targets you selected. Alternatively, you can type N in the option field to ignore all of the values you specified.

7 Press Enter.

The trace is started and the Current Traces (CT) view is displayed with the new trace listed.

Starting a transaction trace by using replication

Perform the following actions to start a transaction by using replication:

1 Type CT on the COMMAND line of any view and press Enter.
The Current Traces view is displayed, as shown in the following figure:

**Figure 96: Current Traces view (CT)**

```
14APR2009 12:29:01 ------ MainView WINDOW INTERFACE (V6.0.00) -----------
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===> >W1 =CT================I11Z=====*========14APR2009==12:23:30====MVIMS====D====4
                  | Current Traces
                  | Commands:  ST (Start Application Trace)  HT (History Traces)  JOURNAL
                  | Line CMDs: S (Select), W (Show),  M (Modify),    I (Switch)
                  | Z (Stop),   P (Purge), R (Replicate), Q (Quiesce Logging)
                  | CMD Trace ID Typ User ID Trace Title         Start Date Start Status Log
                  | --- -------- --- ------- ----------------------- ---------- Time  ------  Stat
                  | HISTORY Sum BOLTSM2 HISTORY TRACE           09APR2009 09:50 Complet
                  | ENERLOGT Sum ROHMKC Workload Trace          10APR2009 11:51 Active  ACTV
                  | THDAMINQ Det BOLTXC2 Admin trace            14APR2009 11:05 Active
                  | MARY4    Abr ROHMKC test 3                  14APR2009 11:52 Init
```

2 In the **CMD** field of the trace whose trace options you want to copy, type **R** and press **Enter**.

The Start IMS Trace Request dialog is displayed, as shown in Figure 95 on page 118. All of the options from the selected trace are copied to the dialog.

If the request that is being replicated specified a stop time, the stop time is displayed as the number of intervals remaining until the monitor stops.

3 *(optional)* Adjust the trace options (see “Starting a transaction trace online” on page 118).

4 Press **Enter**.

The trace is started and the Current Traces (CT) view is displayed with the new trace listed.

**Troubleshoot a transaction trace request**

If you experience problems when requesting a transaction trace, review the BBI-SS PAS journal log for messages that can be useful in identifying problems.

Use the **JOURNAL** primary command on one of the following views to access the BBI-SS PAS journal log:

- Trace List (ITALIST)
- Current Trace List (ITALISTC)
- History Trace List (ITALISTH)
- Current Traces (CT)
■ History Traces (HT)

The JOURNAL primary command is also a hyperlink on the CT and HT views.

## Work with transaction traces

In addition to starting a transaction trace, you can:

■ Use the transaction trace information views (ITA*) to:
  — View a list of traces
  — View information about individual traces
  — Create and execute a query against the trace data in a trace data set

For more information, see “Available transaction trace information views” on page 122.

■ Use the Current Traces (CT) view to:
  — View and modify the options that were used to start a trace
  — Stop and purge traces
  — Switch trace logging to a different log data set
  — Quiesce trace logging for a trace

For more information, see “Work with current traces” on page 134.

| For more information, view the Quick Course MainView for IMS - Managing IMS Traces. You must have a BMC Support ID to view the Quick Course. |

---

## Available transaction trace information views

The following transaction trace information views are listed in the following table:
### Table 1: Transaction trace information views

<table>
<thead>
<tr>
<th>See</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Display a list of current and history traces” on page 124</td>
<td>Trace List (ITALIST)</td>
</tr>
<tr>
<td>“Display a list of current and history traces” on page 124</td>
<td>Current Trace List (ITALISTC)</td>
</tr>
<tr>
<td>“Display a list of current and history traces” on page 124</td>
<td>History Trace List (ITALISTH)</td>
</tr>
<tr>
<td>“Display trace details” on page 125</td>
<td>Trace Detail (ITALISTD)</td>
</tr>
<tr>
<td>“Trace Summary view (ITASUM)” on page 126</td>
<td>Trace Summary (ITASUM)</td>
</tr>
<tr>
<td>“Transaction Summary Data view (ITASTRAC)” on page 127</td>
<td>Transaction Summary Data (ITASTRAC)</td>
</tr>
<tr>
<td>“Transaction Detail Trace view (ITADTRAC)” on page 128</td>
<td>Transaction Detail Trace (ITADTRAC)</td>
</tr>
<tr>
<td>“Trace Summary by Transaction view (ITASUMZ)” on page 131</td>
<td>Trace Summary by Transaction (ITASUMZ)</td>
</tr>
<tr>
<td>“Use transaction trace object menus” on page 132</td>
<td>Trace Menu (ITALMR)</td>
</tr>
<tr>
<td>“Trace Query view (ITAQUERY)” on page 133</td>
<td>Trace Query (ITAQUERY)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by IMS (ITASUMI)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by IMS and PSB (ITASUMIP)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by IMS and Transaction (ITASUMIT)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by PSB (ITASUMP)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by PSB and IMS (ITASUMPI)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by Transaction and IMS (ITASUMTI)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by User (ITASUMU)</td>
</tr>
<tr>
<td>None</td>
<td>Trace Summary by User and Transaction (ITASUMUT)</td>
</tr>
</tbody>
</table>

**Tip**

To access online Help for a view, position the cursor on the view name (in the window information line) and press the **Help** key. To access help for a field, position the cursor on the field and press the **Help** key.
Access the transaction trace information views

You can access filtered transaction trace views by selecting trace options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS DBA Easy Menu (EZIDBA, EZIDBAR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering TRACES on the COMMAND line and then selecting a view from the list of transaction trace views.

For more specific information about hyperlinks to the transaction trace views, see the descriptions of the views and displays.

Transaction trace information views line commands

The following line commands are available on the ITASUM* views:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST</td>
<td>Access the Transaction Summary Data view (ITASTRAC) for a transaction (see “Transaction Summary Data view (ITASTRAC)” on page 127), which shows transaction and program information for the selected transaction instance</td>
</tr>
<tr>
<td>DT</td>
<td>Access the Transaction Detail Trace view (ITADTRAC) for a transaction if a detail trace is active for the transaction (see “Transaction Detail Trace view (ITADTRAC)” on page 128), which shows a detail trace of IMS, DB2, and MQSeries events that occurred as a transaction was processed</td>
</tr>
<tr>
<td>ET</td>
<td>Access the IMS Connect Transaction Events view (IENRLOGT), which shows the data logged by Energizer for IMS Connect for an IMS Connect transaction</td>
</tr>
</tbody>
</table>

Display a list of current and history traces

The following views provide a list of trace directory entries and provide information about the traces:
Current and History Trace List view (ITALIST) (Figure 97 on page 125) displays information about all currently active traces and all history traces.

For active traces, one row is displayed for the current trace buffer and one row is displayed for each trace log data set. For inactive history traces, one row is displayed for each trace log data set.

You can hyperlink to ITALIST from the:

— Traces option on the IMS Easy Menu (EZIMS)
— Traces option on the IMS SSI Easy Menu (EZISSI)
— View Traces option in the IMS Fast Menu (EZIFAST)
— View Detail Trace option in the IMS DBA Easy Menu (EZIDBA)

Current Trace List view (ITALISTC) displays information about all current traces. This view is filtered to display current traces only.

For active traces, a row is displayed for each trace log data set. For inactive history traces, one row is displayed for each trace log data set.

History Trace List view (ITALISTH) displays information about all history traces. This view is filtered to display history traces only.

All rows associated with a specific trace are displayed together. The Data Type field indicates if the row is for a current buffer (Curr) or for trace records in a history log data set (Hist).

Figure 97: Trace List view (ITALIST)

<table>
<thead>
<tr>
<th>Trace ID</th>
<th>Data Type</th>
<th>Data Type</th>
<th>Trace Title</th>
<th>Start Date</th>
<th>Start Time</th>
<th>End Date</th>
<th>End Time</th>
<th>Jobname</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELOGT</td>
<td>Sum Hist</td>
<td>WORKLOAD</td>
<td>WORKLOAD TRACE</td>
<td>12JAN2009</td>
<td>17:29</td>
<td>12JAN2009</td>
<td>18:56</td>
<td>I10YIMS</td>
</tr>
<tr>
<td>ENERLOGT</td>
<td>Sum Hist</td>
<td>WORKLOAD</td>
<td>WORKLOAD TRACE</td>
<td>26JAN2009</td>
<td>11:21</td>
<td>26JAN2009</td>
<td>11:21</td>
<td>I11ZIMS</td>
</tr>
<tr>
<td>ENROLGT</td>
<td>Sum Hist</td>
<td>WORKLOAD</td>
<td>WORKLOAD TRACE</td>
<td>14JAN2009</td>
<td>13:39</td>
<td>14JAN2009</td>
<td>14:00</td>
<td>I11ZIMS</td>
</tr>
<tr>
<td>ENRLOGT</td>
<td>Sum Hist</td>
<td>WORKLOAD</td>
<td>WORKLOAD TRACE</td>
<td>23JAN2009</td>
<td>10:52</td>
<td>23JAN2009</td>
<td>12:59</td>
<td>I11ZIMS</td>
</tr>
<tr>
<td>ETESN</td>
<td>Sum Hist</td>
<td>WORKLOAD</td>
<td>WORKLOAD TRACE</td>
<td>12JAN2009</td>
<td>14:44</td>
<td>12JAN2009</td>
<td>16:32</td>
<td>I10YIMS</td>
</tr>
<tr>
<td>ETESN</td>
<td>Sum Hist</td>
<td>WORKLOAD</td>
<td>WORKLOAD TRACE</td>
<td>14JAN2009</td>
<td>14:06</td>
<td>14JAN2009</td>
<td>14:20</td>
<td>I11ZIMS</td>
</tr>
<tr>
<td>HISTORY</td>
<td>Det Hist</td>
<td>HISTORY</td>
<td>HISTORY TRACE</td>
<td>02APR2009</td>
<td>08:50</td>
<td>02APR2009</td>
<td>08:54</td>
<td>I11A44CT</td>
</tr>
<tr>
<td>HISTORY</td>
<td>Sum Hist</td>
<td>WORKLOAD</td>
<td>WORKLOAD TRACE</td>
<td>16FEB2009</td>
<td>12:43</td>
<td>16FEB2009</td>
<td>12:44</td>
<td>I11ZIMS</td>
</tr>
</tbody>
</table>

Display trace details

The Trace Detail view (ITALISTD) summarizes the selected trace in fifteen-minute intervals.
The view provides statistics that show:

- How many trace records were written during the time period
- Averages for response time, elapsed time, input queue time, database calls, and I/O
- Maximums and minimums for response time, elapsed time, and input queue time and shows trace ID and type

You can hyperlink to the ITALISTD view from the **Start Time** field in the ITALIST view and from the View by Time Period option in the ITALMR Trace Menu.

**Figure 98: Trace Detail view (ITALISTD)**

<table>
<thead>
<tr>
<th>Start Time</th>
<th>End Time</th>
<th>Nbr of Records</th>
<th>Avg Resp</th>
<th>Avg InpQ</th>
<th>Avg Elap</th>
<th>Avg DL/I</th>
<th>Avg I/O</th>
<th>Avg DB2 Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007 16:53:41</td>
<td>15APR2007 16:51:45</td>
<td>MVIMS</td>
<td>4</td>
<td>0.131</td>
<td>0.028</td>
<td>0.103</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Trace Summary view (ITASUM)**

The Trace Summary view (ITASUM) shows specific occurrences of a transaction and includes transaction run details, such as start time, user ID, message switch, and completion code.

For more information, view the Quick Course **Managing IMS traces**. You must have a BMC Support ID to view the Quick Course.

You can hyperlink to the ITASUM view from:

- Most of the fields in the ITASUMZ view
- Most of the fields in the ITALISTD view
- The **View Trace** option on the Trace Menu (ITALMR)

You can filter the displayed information by using the **Add Filter Masks** and **Remove Filter Masks** options:

- To specify filters, select **Add Filter Masks**, a blank line (filter line) replaces the second row of the header. In the blank line, type values for one or more columns
and press Enter. The display changes to include only those rows that meet the criteria you specified. For additional information, see the online Help.

- To hide the filter line, select Remove Filter Masks.
- To remove the filters, delete the values from the filter line.

You can issue the ST line command to access the Transaction Summary Data view (see “Transaction Summary Data view (ITASTRAC)” on page 127) for a transaction instance, and you can issue the DT line command to access the Transaction Detail Trace view (see “Transaction Detail Trace view (ITADTRAC)” on page 128) for a transaction instance, if a detail trace is active for the transaction.

**Figure 99: Trace Summary view (ITASUM)**

![Snapshot of the Trace Summary view (ITASUM)](image)

The following hyperlink is provided on the ITASUM view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>Transaction Summary Data view (ITASTRAC), which displays transaction and program information for a selected transaction instance</td>
</tr>
</tbody>
</table>

**Transaction Summary Data view (ITASTRAC)**

The Transaction Summary Data view (ITASTRAC) provides transaction and program information for a selected transaction instance. It summarizes DC call activity, DL/I call activity, Fast Path activity, DB2 activity, MSC activity, event timings, and CPU times for the transaction instance.

For more information, view the Quick Course Managing IMS traces. You must have a BMC Support ID to view the Quick Course.

You can use the display (shown in Figure 100 on page 128), for example, to see how many times a transaction instance accessed a database, the types of calls it made and...
how many, and the transaction elapsed time. An unusually high elapsed transaction
time may indicate poor DASD response time.

For information about the sections and fields in ITASTRAC, use the H line command
next to a section. If there is a detail trace active for the transaction, use the D primary
command to access the Transaction Detail Trace view (ITADTRAC).

You can access the ITASTRAC view with the S line command in the Trace Summary
view (ITASUM).

**Figure 100: Transaction Summary Data view (ITASTRAC)**

<table>
<thead>
<tr>
<th>Related Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detail Trace</td>
</tr>
<tr>
<td>Current Traces</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Transaction Detail Trace view (ITADTRAC)**

The Transaction Detail Trace view (ITADTRAC) provides a detail trace of IMS, DB2,
and MQSeries events that occurred as a transaction was processed.

The content of each trace entry depends on the type of event that is displayed. The
entries are either from the online trace storage buffer or, if the request specified
logging, from the trace log data set. You can use this display to analyze complex IMS
performance problems associated with the execution of specific transactions.

For detailed information about the fields on ITADTRAC, press your Help key or enter HELP on the COMMAND line.

If a detail trace is active for a transaction, you can access ITADTRAC for a
transaction instance by:
- Issuing the DT line command beside the transaction instance in the Trace Summary view (ITASUM) or the Region Activity view (IRGNSUMR)

- Selecting the Detail Trace option on the Transaction Summary Data view (ITASTRAC)

- Selecting the Detail Trace Display option from the IRGNMR Region Menu

If ITADTRAC was initiated from the IRGNSUMR view or the IRGNMR menu for an in-progress unit of work, the trace sequence number field (Seq#/Rgn) contains the region number and the Trace ID field shows ACTIVE. For a BMP region, the Tran and User/LTERM fields will have no value, and the Arrived field will contain zeros.

**Figure 101: Transaction Detail Trace view (ITADTRAC)**

![Transaction Detail Trace view](image)

No hyperlinks are available on the view.

**Display options and scrolling on the ITADTRAC view**

You can use the fields in the upper portion of the view to control the information that is displayed in the data area.

You can specify YES or NO in the following fields to control the inclusion of the specified type of data in the view:

<table>
<thead>
<tr>
<th>Data type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAITS</td>
<td>Includes or excludes from the view wait events (such as lock, latch, open, and miscellaneous IWAITS for the transaction instance)</td>
</tr>
<tr>
<td>IO Events</td>
<td>Includes or excludes from the view I/O event entries</td>
</tr>
<tr>
<td>SSA</td>
<td>Includes or excludes from the view the segment search argument area specified with the call</td>
</tr>
<tr>
<td>KFB</td>
<td>Includes or excludes from the view the key feedback data specified with the call</td>
</tr>
</tbody>
</table>

You can use the IOArea Lines field to control the number of input and output area data lines in the display.
The TRIWAITS parameter in BBPARM member IMFBEX00 controls the recording and display of IWAIT data in detail traces. You can specify that all IWAIT data be displayed or that no IWAIT data be displayed or you can specify types of IWAIT data to be displayed. The default is TRIWAITS=NONE (although I/O IWaits are always recorded and displayed in detail traces, regardless of the TRIWAITS parameter setting).

For information about IMFBEX00, see the MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the TRIWAITS parameter, use the IBEXSUMR view.

**View extended data on the ITADTRAC view**

The segment search argument and key feedback data is displayed if the SSA and KFB options are set to YES.

The I/O area data is displayed if the IOArea Lines value is greater than zero. (The default for the SSA field is NO, and the default for IOArea Lines is 000.) Up to 64 bytes of the data is displayed for each entry in both hexadecimal dump format and character data, as shown in the following IOA example:

```
* IOA 003B0001 C9D4C6E3 F1C84040 4040C4C5 * IMFT1H DE*
* +16 D3C5E3C5 4040D3C1 E2E3F7F8 F5F0F040 *LTE LAST78500 *
```

Detail trace extended data can be secured at sites that want to control access to sensitive data in detail traces. Unauthorized users who set the SSA or KFB field to YES or change the IOArea Lines field to a number will get error message BBFP2227W when they press Enter. Unauthorized users who enter the DT command in the Region Activity view (IRGNSUMR) or select the Detail Trace Display option in the IRGNMR menu will get error message BBFPA622W. Both messages inform users that they are not authorized to view detail trace extended data.

Security administrators can control access to extended data by securing the resource entity for extended data display action (IOALINES).

**Collecting extended data**

You can use the DCIOAL, EMIOAL, FFIOAL, and FPIOAL parameters in BBPARM member IMFBEX00 to control the maximum length of the I/O area copied into the detail trace for specific call types.
The default for each parameter is 64 bytes of data, and the maximum length you can specify is 65536. If you specify 0 for a parameter, no I/O area data is captured for that data type.

For information about the BBPARM IMFBEX00 member, see the *MainView for IMS and MainView for DBCTL Customization Guide*. To determine the current settings in IMFBEX00, use the IBEXSUMR view.

**Note**
Your changes affect all detail traces, not just the new trace.

**To change the I/O area parameters**

1. Make the parameter changes in BBPARM member IMFBEX00.
2. Issue the reset command .E PARM IMFBEX00.

**Trace Summary by Transaction view (ITASUMZ)**

The Trace Summary by Transaction view (ITASUMZ) displays transactions summarized by transaction code, and it provides transaction execution details.

You can access the ITASUMZ view, shown in the following figure, by:

- Requesting a trace query with the ITAQUERY view
- Hyperlinking to it from the View by Transaction option in the ITALMR Trace Menu or from the **Nbr of Trans** field in the Trace Detail view (ITALISTD)
- Selecting a trace on the Current Traces view (CT) or on the History Traces view (HT)

**Figure 102: Trace Summary by Transaction view (ITASUMZ)**
The following hyperlinks are provided in the ITASUMZ view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trancode</td>
<td>ITAMT Trace Menu, an object menu where you can select other trace summary grouping options for further analysis, refine a query request, or select trace data from a different time period</td>
</tr>
<tr>
<td>Cnt</td>
<td>Trace Summary view (ITASUM), which shows all transactions for the time period sorted in descending order by end time</td>
</tr>
<tr>
<td>Respns Time</td>
<td>ITASUM view, sorted to show the highest response times for the transaction on top</td>
</tr>
<tr>
<td>Input Queue</td>
<td>ITASUM view, sorted to show the highest input queue times for the transaction on top</td>
</tr>
<tr>
<td>Elapsd Time</td>
<td>ITASUM view, sorted to show the highest elapsed times for the transaction on top</td>
</tr>
<tr>
<td>DLI Calls</td>
<td>ITASUM view, sorted to show the highest number of DL/I calls for the transaction on top</td>
</tr>
<tr>
<td>DLI I/O</td>
<td>ITASUM view, sorted to show the highest number of DL/I I/O calls for the transaction on top</td>
</tr>
<tr>
<td>DB2 Calls</td>
<td>ITASUM view, sorted to show the highest number of DB2 calls for the transaction on top</td>
</tr>
<tr>
<td>Total CPU</td>
<td>ITASUM view, sorted to show the highest total CPU times for the transaction on top</td>
</tr>
<tr>
<td>DLI CPU</td>
<td>ITASUM view, sorted to show the highest DL/I CPU times for the transaction on top</td>
</tr>
<tr>
<td>DB2 CPU</td>
<td>ITASUM view, sorted to show the highest DB2 CPU times for the transaction on top</td>
</tr>
<tr>
<td>Latest End Time</td>
<td>ITASUM view, sorted to show the latest end times on top</td>
</tr>
<tr>
<td>Earliest End Time</td>
<td>ITASUM view, sorted to show the earliest start times on top</td>
</tr>
</tbody>
</table>

**Use transaction trace object menus**

Several object menus are provided to filter transaction trace information for a selected object.

The ITALMR menu is an example of one of the object menus.

*Figure 103 on page 133* provides hyperlinks for examining trace data set details and for viewing a summary of all occurrences of a selected transaction. The menu also provides access to services for managing active and history traces and for executing trace query requests.
You can hyperlink to the ITALMR menu from the Trace ID field in the ITALIST view.

**Figure 103: Trace Menu (ITALMR)**

15APR2013 15:04:13 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) 15APR2013 15:04:07
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1 ALT WIN ===>
>W1 =ITALIST==ITALMR==I13H51CT=*========15APR2013==15:04:07====MVIMS====D====1
Trace Menu
Timeframe - Realtime
  Trace ID -> BMP1
  Trace Title -> WORKLOAD TRACE B
  Trace Type -> Detail
  Start Date -> 03APR2013
  Start Time -> 06:58
  End Date -> 03APR2013
  End Time -> 08:33
View/Manage Traces
  View Trace
  Summarize By Time Period
  Summarize By Transaction
  Manage Active Traces
  Manage History Traces

**Trace Query view (ITAQUERY)**

You can use the Trace Query view (ITAQUERY) to create and execute a query against the trace data in a trace data set.

Trace data is selected by the trace ID and the data set name ID (or token) in the TraceID,DsnID field. The data retrieved is displayed in the ITASUMZ view.

In the Command field, you can enter an R to run your query request or a Q to modify the QWHERE filter used by the query. You can use the QWHERE filter to create complex expressions and use other trace filter parameters. You can specify other trace query parameters for trace ID, data set ID, transaction code, and PSB name, and you can specify thresholds for response and elapsed time.
You can hyperlink to the ITAQUERY view from the Trace ID, Data Set ID field in the ITALISTD view.

**Figure 104: Trace Query view (ITAQUERY)**

<table>
<thead>
<tr>
<th>15APR2007 16:46:33</th>
<th>MainView WINDOW INTERFACE (Vx.x.xx)</th>
<th>Command ====&gt;</th>
<th>SCROLL ===&gt; HALF</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURR WIN ===&gt; 1</td>
<td>ALT WIN ===&gt;</td>
<td>W1 =ITAQUERY===IMSxxx=<em>=</em>=15APR2007==16:46:31==MVIMS===D==1</td>
<td>Trace Query Request</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Work with current traces**

The Current Traces view (CT) displays current application traces that are active or complete. It is allowed in target mode only.

In **Figure 105 on page 135**, each row shows the trace ID, title, trace type, target name, and when the trace was started for active traces.

Use the CT view to:

- View the options that were used to start a trace; see “Viewing the options that were used to start a trace” on page 135
- Modify the options that were used to start a trace; see “Modifying the options that were used to start a trace” on page 136
- Stop traces; see “Stop a trace” on page 137
- Purge traces; see “Purge a trace” on page 137
- Switch trace logging to a different log data set; see “Switch trace logging to a different log data set” on page 138
- Quiesce trace logging for a trace; see “Quiesce trace logging for a trace” on page 138
For more information, view the Quick Course Managing IMS traces. You must have a BMC Support ID to view the Quick Course.

Access the CT view

Use the following methods to access the CT view:

- Type CT on the COMMAND line of any view and press Enter.
- Select the Current Traces option on the IMS Admin Easy Menu (IZIADMIN).

**Figure 105: Current Traces view (CT)**

```
14APR2009 12:29:01 ---- MainView WINDOW INTERFACE (V6.0.00) -----
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1 ALT WIN ===>>
>W1 =CT=----------------------------11Z=*=*=*=14APR2009==12:23:30==MVIMS===D====4

Current Traces

Commands: ST (Start Application Trace) HT (History Traces) JOURNAL

Line CMDs: S (Select), W (Show), M (Modify), I (Switch)
Z (Stop), P (Purge), R (Replicate), Q (Quiesce Logging)

<table>
<thead>
<tr>
<th>CMD</th>
<th>Trace ID</th>
<th>Typ</th>
<th>User ID</th>
<th>Trace Title</th>
<th>Start Date</th>
<th>Start Status</th>
<th>Log</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HISTORY</td>
<td>Sum</td>
<td>BOLTSUS</td>
<td>HISTORY TRACE</td>
<td>09APR2009</td>
<td>Completed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENERLOGT</td>
<td>Sum</td>
<td>ROHMKC</td>
<td>Workload Trace</td>
<td>10APR2009</td>
<td>Active</td>
<td>ACTV</td>
</tr>
<tr>
<td></td>
<td>THDAMINQ</td>
<td>Det</td>
<td>BOLTXC2</td>
<td>Admin trace</td>
<td>14APR2009</td>
<td>Active</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MARY4</td>
<td>Abr</td>
<td>ROHMKC</td>
<td>test 3</td>
<td>14APR2009</td>
<td>Init</td>
<td></td>
</tr>
</tbody>
</table>
```

The following hyperlinks are provided on the CT view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trace ID</td>
<td>Trace Summary view (ITASUM), which displays specific occurrences of</td>
</tr>
<tr>
<td></td>
<td>transactions and includes transaction run details</td>
</tr>
<tr>
<td>Start Time</td>
<td>Trace Detail view (ITALISTD), which displays a summarization by 15 minute</td>
</tr>
<tr>
<td></td>
<td>intervals of the trace records in the selected trace</td>
</tr>
</tbody>
</table>

Viewing the options that were used to start a trace

Use the W (Show) line command on the CT view to display the options that were used to start the trace.

The IMS Trace Request dialog is displayed, showing the options that were specified on the Start IMS Trace Request dialog.

You cannot change any of the displayed information. For more information about working with the Start IMS Trace Request dialog, see “Request a transaction trace” on page 116.
To view the information for the additional trace options

1. In one or more of the **Specify additional trace options** fields, enter a Y and press Enter.

2. Enter the END command to exit the display.

Modifying the options that were used to start a trace

Use the M (Modify) line command on the CT view to display the options that were used to start the trace.

The IMS Trace Request dialog is displayed, showing the options that were specified on the Start IMS Trace Request dialog.

For more information about working with the Start IMS Trace Request dialog, see “Request a transaction trace” on page 116.

To view the information for the additional trace options

1. In one or more of the **Specify additional trace options** fields, enter a Y and press Enter.

You can change the values in the following fields:

- Trace Attributes
- WRAP
- RST
- QIS
- Trace Log Data Set Options
- Number of logs
- Overwrite logs
- Archive PROC
- Log switch time
- Volumes
- Primary CYLS
■ SMS Data class
■ SMS Management class

2 Exit the display in one of the following ways:
■ Enter the END command to exit the display without saving changes.
■ Press Enter to save changes and exit the display.

**Stop a trace**

A transaction trace can be stopped automatically or manually:

■ To stop a transaction trace automatically, specify a stop time when the trace is requested. See “Request a transaction trace” on page 116.
When the stop time occurs, the trace is stopped and all collected data is retained.

■ To stop a transaction trace manually, use one of the following methods:
  — Use the Z (Stop) line command on the CT view. The trace is stopped, all collected data is retained, and the stop time of the trace is changed to the current time.
  
  — Change or add a stop time for a trace by using the M (Modify) line command. See “Modifying the options that were used to start a trace” on page 136.

  — Use the P (Purge) line command on the CT view. See “Purge a trace” on page 137.

**Purge a trace**

To purge the data that was collected for a trace, use the P (Purge) line command on the CT view.

A confirmation dialog is displayed.

---

**WARNING**

Do not purge a trace that is actively logging trace data. The logger tasks might experience 0C4 abends as a result of trace data buffers that get freed by this command. Use the Z or Q line command to stop a transaction trace.
Switch trace logging to a different log data set

Use the I (Switch) line command on the CT view to switch a trace log data set if more than one data set was defined in the logging options of the trace request.

An archive request for the trace log data set just deactivated is started if the trace request specified an archive procedure.

If the I command is issued and only one log data set is defined, logging either reuses the same data set or quiesces. Logging resumes with the same data set if the Overwrite logs option was Y when the trace request was specified. Logging quiesces if the Overwrite logs option was N.

Quiesce trace logging for a trace

Use the Q (Quiesce Logging) line command on the CT view to quiesce trace logging for a trace.

Trace logging must have been requested when the trace was started. The trace continues to run, but no data is written to the a trace log.

Once quiesced, logging cannot be restarted for the trace. To restart logging, you must purge the request with the P line command. Another request for the trace, with the logging options specified must be activated.

Transaction trace administration

The History Traces (HT) view displays historical trace log data sets in the trace directory for all IMS, DB2, and CICS systems managed by a PAS.

It is allowed in target mode only.

The HT view (shown in Figure 106 on page 139) displays one row per log data set in the trace directory and identifies the trace ID, title, trace type, target name, start and end time of trace.

Uses of the History Traces (HT) view

Use the HT view to:

- View a list of trace log data sets in the trace directory
View and delete entries in a trace log data set; see “View entries in a trace log data set” on page 140

View information about a trace log data set; see “Viewing information about a trace log data set” on page 140

Delete a trace directory entry and a trace log data set; see “Deleting a trace directory entry and a trace log data set” on page 141

Import and register a trace log data set to the trace directory; see “Importing and registering a trace log data set” on page 143

Reset, verify, free, and archive a trace log data set; see “Manage a trace log data set” on page 144

Print trace reports for a trace log data set; see “Print a trace report” on page 145

Start and stop the trace directory; see “Start and stop the trace directory” on page 155

Access the HT view

Use the following methods to access the HT view:

■ Type HT on the COMMAND line of any view and press Enter.

■ Select the History Traces option on the IMS Admin Easy Menu (IZIADMIN).

Figure 106: History Traces view (HT)

| 14APR2009 15:51:31 ------ MainView WINDOW INTERFACE (V6.0.00) --------------- | 14APR2009 15:41:07 --- MVIMS D === 40 |
| COMMAND ====> SCROLL ===> CSR | >W1 =HT====I11Z=====*========14APR2009==15:41:07====MVIMS==D===40 |
| CURR WIN ===> 1 ALT WIN ===> | History Traces |
| Commands: | NEW DELETE STARTDIR STOPDIR CT (Current Traces) JOURNAL |
| Directory: | BOLTS.M.TS44.TRACEDIR Used(77 of 512) |
| Line CMDS: | S (Select), W (Show), D (Delete), R (Reset), P (Print) V (Verify), N (New), F (Free), A (Archive) |
| CMD Trace Typ Trace Title User Id Target Owning Start Date Start |
| --- ID --- ----------------- -------- ------- -------- Pas ID ├──── Past ID Time |
| HISTORY Det HISTORY TRACE BOLEFH1 I11A44CT TS44 07APR2009 09:02 |
| LOGTEST Sum WORKLOAD TRACE BOLTS.M4 I11ZIMS TS44 03APR2009 22:01 |
| HISTORY Det HISTORY TRACE BOLEFH1 I11A44CT TS44 02APR2009 08:50 |
| THDMING Det WORKLOAD TRACE BOLTS.M4 I11A44CT TS44 24MAR2009 10:50 |
| TEST44 Sum WORKLOAD TRACE BOLTS.M4 I11ZIMS TS44 11MAR2009 16:32 |
| HIST2 Det WORKLOAD TRACE BOLEFH1 I11ZIMS TS44 05MAR2009 09:22 |
| TEST Sum WORKLOAD TRACE BOLTS.M4 I11ZIMS TS44 27FEB2009 08:05 |

The following hyperlinks are provided on the HT view:
View entries in a trace log data set

Use the S (Select) line command on the HT view to load the selected log data set and display the Trace Summary by Transaction view (ITASUMZ).

The ITASUMZ view displays transactions summarized by transaction code and provides transaction execution details.

Viewing information about a trace log data set

Use the W (Show) line command on the HT view to display information about the trace associated with the selected log data set.

The IMS Trace Request dialog is displayed, showing the options that were specified on the Start IMS Trace Request dialog.

You cannot change any of the displayed information. For more information about working with the Start IMS Trace Request dialog, see “Request a transaction trace” on page 116.

To view the information for the additional trace options

1. In one or more of the Specify additional trace options fields, enter a Y and press Enter.

2. Enter the END command to exit the display.
Deleting a trace directory entry and a trace log data set

You can use the History Traces view (HT) to delete trace directory entries from the trace directory.

You can also specify that you want to physically delete the associated trace log data set.

You can delete:

- Multiple entries at one time
- A single entry

To delete multiple trace directory entries

1. Use the DELETE primary command on the History Traces view (HT).

The Delete Trace Directory Entries dialog is displayed, shown in the following figure:

Figure 107: Delete Trace Directory Entries dialog

```
COMMAND ===> Delete Trace Directory Entries SCROLL ===> CSR
Directory: BOLTSM.TS44.TRACEDIR
Delete by trace id's: (specific or generic)
   Trace ID      Trace ID      Trace ID
   Trace ID      Trace ID      Trace ID
Delete by log data set name: (specific or generic)
   DSN
   DSN
   DSN
Delete by date:
   From Date     (DDMMMYYYY)
   To   Date     (DDMMMYYYY)
   Older than    (DDMMMYYYY)

ENTER to process the request
RESET to clear input fields
END to cancel the request
HELP to view related help
```

2. Specify selection criteria for the trace directory entries you want to delete.

You can specify entries by trace ID, trace log data set name, and by date. You can use generic entries for trace IDs and data set names.

For more information about any of the fields, see the online Help.
3 Press **Enter**.

A confirmation dialog is displayed for each entry that meets the criteria you specified.

Verify the information on each confirmation dialog. For each entry, you can specify that you want to also delete the indicated trace log data set. At any time during the confirmation, you can indicate that you do not want to confirm additional entries.

4 Press **Enter**.

The entries are deleted.

If you specified to delete a trace log data set and the data set is cataloged, a confirmation screen is displayed. If the data set is not cataloged, no confirmation is required.

**To delete a single trace directory entry**

1 Use the D (Delete) line command on the History Traces view (HT).

The Delete Trace Directory Entry dialog is displayed, shown in the following figure:

**Figure 108: Delete Trace Directory Entry dialog**

<table>
<thead>
<tr>
<th>COMMAND ===&gt;</th>
<th>SCROLL ===&gt;</th>
<th>CSR</th>
<th>MORE: -</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directory:</td>
<td>BOLTS.MT544.TRACEDIR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delete by trace id's: (specific or generic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trace ID</td>
<td>Trace ID</td>
<td>Trace ID</td>
<td></td>
</tr>
<tr>
<td>Trace ID</td>
<td>Trace ID</td>
<td>Trace ID</td>
<td></td>
</tr>
<tr>
<td>Delete by log data set name: (specific or generic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delete by date:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From Date</td>
<td>(DDMMYYYY)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To Date</td>
<td>(DDMMYYYY)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Older than</td>
<td>(DDMMYYYY)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ENTER to process the request
RESET to clear input fields
END to cancel the request
HELP to view related help

2 Verify the information

3 Specify if you want to physically delete the trace log data set associated with the entry by typing **Y** in the Also delete the trace log data set? field.
4 Press **Enter**.

If the data set is cataloged, a confirmation screen is displayed. If the data set is not cataloged, no confirmation is required.

**Importing and registering a trace log data set**

You can use the History Traces view (HT) to manually add trace log data sets to the trace directory.

For example, you can move the data sets from one system to another. Enter the data set name only. The application automatically verifies each name you enter.

**To import and register a trace log data set (TLDS)**

1 On the History Traces view (HT) use one of the following commands:

- **NEW** primary command
- **N (New)** line command; information from the log data set for the row is used to populate the Create Trace Directory Entries dialog

The Create Trace Directory Entries dialog is displayed, shown in the following figure:

**Figure 109: Create Trace Directory Entries dialog**

<table>
<thead>
<tr>
<th>Log Data Set Name</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

**Transaction trace administration**

**Chapter 5  Examine a user application with transaction tracing  143**
2 Type the name of a log data set that you want to add to the trace directory.

You can specify up to 10 log data set names in the **Log Data Set Name** fields.

3 Press **Enter**.

Each log data set processed and verified. The processing results are displayed in the **Response** fields. The following responses are possible:

<table>
<thead>
<tr>
<th>Message</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TLDS ADDED</td>
<td>Trace log data set was added to the directory.</td>
</tr>
<tr>
<td>TLDE ALREADY EXISTS</td>
<td>Trace log data set already exists in the directory.</td>
</tr>
<tr>
<td>CANNOT ALLOCATE</td>
<td>Trace log data set cannot be allocated.</td>
</tr>
<tr>
<td>CANNOT READ</td>
<td>A non-VSAM linear data set was specified and it is not a valid data format for a trace log data set.</td>
</tr>
<tr>
<td>DOES NOT EXIST</td>
<td>Data set name is not cataloged.</td>
</tr>
<tr>
<td>NOT TLDS</td>
<td>Work area could not be obtained or the data set does not contain trace data.</td>
</tr>
</tbody>
</table>

**Manage a trace log data set**

Use the following line commands on the History Traces view (HT) to manage trace log data sets:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R (Reset)</td>
<td>Marks the log data set for reuse</td>
</tr>
<tr>
<td>V (Verify)</td>
<td>Matches the directory against the log data set and updates the directory with information from the log data set. If the data set is not cataloged, the status is changed to NOCAT. If there is any error in reading this information, the status is changed to INV (invalid).</td>
</tr>
<tr>
<td>F (Free)</td>
<td>Closes and deallocates the selected log data set if a trace is not being written to it. This command can also be used when another user is viewing the same trace log.</td>
</tr>
<tr>
<td>A (Archive)</td>
<td>Initiates the archive started task (STC) for the selected log data set. The archive option must have been specified when the trace request was made for the trace associated with the log data set. If archiving was not specified for this log data set, the request is ignored. The started task makes a copy of the data to tape or to a GDG (generation data group) data set and marks the trace log data set as available for reuse.</td>
</tr>
</tbody>
</table>
Print a trace report

You can print a report of a trace:

- Online by using the History Traces view (HT)
  
  When you request a trace report online, you use the HT view. The print JCL is generated and then you submit or save it.
  
  You can print from one, unarchived trace log data set only. You specify criteria to indicate what data you want contained in the report.
  
  For more information, see “Printing from an online application” on page 1450.

- In batch mode by using the WATBTRAC batch utility job
  
  When you use the batch utility job, you copy a sample job and modify it to meet your needs. You can print from multiple trace log data sets, including archived data sets. You specify criteria to indicate what data you want contained in the report.
  
  For more information, see “Print with a batch utility job” on page 146.

  The output format of the report is 90 characters wide with the first position reserved for an attribute character.

Printing from an online application

Before printing from the HT view, you must copy the skeleton JCL located in BBPROF member WATBPRNT.

Copy WATBPRNT to an individual user data set (BBPROF) or to a site data set (SBBPROF). The BBPROF or SBBPROF data set must be defined in the CLIST (MainView CLIST) used to start the terminal session. For more information about BBPROF, see the MainView Customization Reference.

Note

The print command is available only when the terminal session is operating under ISPF.

To print from the HT view

1 Use the P (Print) line command on the History Trace view (HT).
The BATCH TRACE PRINT dialog is displayed.

**Figure 110: BATCH TRACE PRINT dialog**

<table>
<thead>
<tr>
<th>COMMAND ===&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update job ===&gt; N (Y/N - update job statement) (END to edit JCL)</td>
</tr>
<tr>
<td>Title line 1 ===&gt;</td>
</tr>
<tr>
<td>Title line 2 ===&gt;</td>
</tr>
</tbody>
</table>

Data Set Name ===> BOLTSM.I11Z.MARY5.APR14.T1335.V01

Data Selection:

| From date ===> 14APR2009 (DDMMMYYYY) Time ===> 1335 (HHMM) |
| To date ===> |

| TYPE ===> (DBT, MPP, BMP, CON, MDP, NDP, FPU, TPI, blank) |
| TRAN ===> |
| DLI CNT ===> IDCNT ===> |
| DB2CNT ===> ABEND ===> NO (YES/NO) |
| DLITIME ===> DB2TIME ===> |
| ELAPSED ===> RESPONSE ===> |

Report Selection:

| LTRAC ===> YES (YES/NO) |
| STRAC ===> NO (YES/NO) |
| DTRAC ===> NO (YES/NO) |

**Print with a batch utility job**

You can specify one or more trace log data sets in a series of DD statements with the ddnames in the form TRACINxx.

Only trace log data sets can be specified in this manner. To specify archived trace log data sets, use the DSN in the ARCIN DD statement.

If you do not know the exact names of the trace data sets, you can use the TRACEID keyword to specify which trace is to be printed. In this case, you must also use the TRACEDIR DD statement to specify the trace directory data set. It is recommended but not required that you use the TARGET, DATE, and TIME keywords to further qualify which trace data sets are to be selected.

You can use the batch utility job WATBTRAC to print history trace data offline. To do so, you must modify and then submit the JCL described in this section. The skeleton JCL to print trace data sets is a single-step procedure located in BBSAMP member WATBTRAC.

The individual JCL control statements specify how to read the input data set for each of the requested traces and how to format the output. The statements and control card input keywords are described in the following tables:
Table 2: WATBTRAC JCL control statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRINT</td>
<td>WATBPRNT program and region required to run the program. The GMWK option in the PARM field is used to increase the size of the summary work area needed to process trace data sets that contain a very large number of transactions. The option increases the summary work area for all services (LTRAC, STRAC, and so on). The syntax rules for GMWK are similar to those for the operating system JCL REGION parameter. The size specified should be greater than 128K. Storage acquired with the option is below the 16M line and is limited by the largest private area available in the operating system. When the GMWK option is used, the job's REGION size may need to be adjusted accordingly. Use the following general guideline to determine the size of GMWK: GMWK = 1700 + (72 × number of unique transactions summarized)</td>
</tr>
<tr>
<td>STEPLIB DD</td>
<td>Program library containing the WATBPRNT load module</td>
</tr>
<tr>
<td>SYSPRINT DD</td>
<td>Data set for printing all input statements and program messages. The SYSPRINT DD statement must exist. If it is not found, a WTO is issued and the run is terminated.</td>
</tr>
<tr>
<td>SYSUDUMP DD</td>
<td>Dump data set for problem determination</td>
</tr>
<tr>
<td>STD1 DD</td>
<td>DDname for the default report</td>
</tr>
<tr>
<td>TRACINxx DD</td>
<td>One or more trace log data sets (TLDGs) as input for trace data formatting. If TRACINxx is defined, TRACEDIR and ARCIN are ignored. This DD must refer to a VSAM trace data set (a TLDS not archived to tape), written by the online trace. Multiple TLDS data sets can be processed if you specify each one in a DD statement with a ddname of TRACINxx, where xx is any valid set of characters. Each of the TLDSs is processed in the order it exists in the job stream.</td>
</tr>
<tr>
<td>TRACEDIR DD</td>
<td>Trace directory data set. If no TRACINxx DD statement is found, the TRACEDIR DD statement is processed. If you specify TRACEDIR DD, you must use the TRACEID keyword. All trace data sets defined with this trace ID are eligible for printing.</td>
</tr>
<tr>
<td>ARCIN DD</td>
<td>Archived TLDS. TRACIN and TRACEDIR must be dummied or you must specify NULLFILE.</td>
</tr>
<tr>
<td>REPORT1</td>
<td>DDname for the trace print output</td>
</tr>
<tr>
<td>SYSIN DD</td>
<td>Input data set containing the control card specifying the amount of detail to print.</td>
</tr>
</tbody>
</table>
### Table 3: Control card print request keywords (listed alphabetically)

<table>
<thead>
<tr>
<th>Keyword andOperand</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>**AB</td>
<td>ABEND**</td>
</tr>
<tr>
<td><strong>CLASS=(nnn,...nnn)</strong></td>
<td>The keyword selects only transactions from the specified class or classes. Valid transaction classes are 1 to 999. To specify multiple classes, separate each value with a comma. The specification can extend to multiple lines. For example: <strong>CLASS=(1,2,3,4,5,6,7)</strong></td>
</tr>
<tr>
<td><strong>DATABASE=(dbName,...dbName)</strong></td>
<td>The variable represents a database name. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by database name. You can use wildcard characters to qualify variables. The + character replaces any single character, and the * character replaces any number of characters at the end of the variable. To specify multiple variables, separate each variable with a comma. The specification can extend to multiple lines. For example: <em><em>DATABASE=(ABC</em>,D+F</em>,GHIJK, DB6,DB7)**</td>
</tr>
<tr>
<td>**DATE=ddmmmyyyy</td>
<td>ddmmmyyyy-ddmmmyyyy**</td>
</tr>
<tr>
<td>Keyword and Operand</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>D</td>
<td>DAY=nn</td>
</tr>
<tr>
<td>DB2C</td>
<td>DB2CNT&lt;nnnnnn</td>
</tr>
<tr>
<td></td>
<td>DB2PLAN=(planName,... planName)</td>
</tr>
<tr>
<td></td>
<td>DB2T</td>
</tr>
<tr>
<td></td>
<td>DLIC</td>
</tr>
</tbody>
</table>
### Keyword and Operand | Description
---|---
DLIT | DLITIME\(<n\)nnnnn | >nnnnnn | =nnnnnn | The variable represents DL/I CPU time in milliseconds. The parameter selects a subset of the trace entries in the online trace storage buffer or trace log data set by DL/I elapsed time. You can specify the variable as a single numeric value or as a range. For example: DLITIME=50, DLITIME>50, DLITIME<50, or DLITIME=1-50.

DTRAC=YES | NO | The DTRAC keyword requests that a one-line entry be printed for each detail trace event. For ease of associating the detail data with a transaction, it is recommended that you also request either LTRAC or STRAC. The default is DTRAC=YES.

EL | ELAPSED\(<n\)nnnnn | >nnnnnn | =nnnnnn | The variable represents elapsed time in milliseconds. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by elapsed time. You can specify the variable as a single numeric value or as a range. For example: ELAPSED=3000, ELAPSED>3000, ELAPSED<3000, or ELAPSED=1-3000.

IOC | IOCNT\(<n\)nnnnn | >nnnnnn | =nnnnnn | The variable represents number of total I/Os (READs and WRITEs). The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by total I/O count. You can specify the variable as a single numeric value or as a range. For example: LEVEL=1 | 2 | 3 | 4 | The keyword specifies the data that will be printed:

- **1** prints DL/I call activity for transaction events.
- **2** prints DL/I call activity and, for IMS calls, prints database I/O events that occurred during call processing (the default).
- **3** prints DL/I call activity and, for IMS calls, prints segment search argument, key feedback, and I/O area data (SSA, KFB, and IOA).
- **4** prints all the information of levels 1, 2, and 3.

LTRAC=YES | NO | The LTRAC keyword is used to request the LTRAC one-line entry for each transaction. If LTRAC is specified in conjunction with STRAC or DTRAC, each transaction starts with the LTRAC line followed by the other displays as requested. The default is LTRAC=YES.

MSW | The keyword selects only transactions that are a result of a message switch.
<table>
<thead>
<tr>
<th>Keyword and Operand</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTMAMEM=(tjName,... tjName)</td>
<td>The variable represents a TMEMBER or IMS Connect job name. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by TMEMBER or JOB name. You can use wildcard characters to qualify variables. The + character replaces any single character, and the * character replaces any number of characters at the end of the variable. To specify multiple variables, separate each variable with a comma. The specification can extend to multiple lines. For example: OTMAMEM=(ABC*,D+F*,GHIJK, TM6,J7)</td>
</tr>
<tr>
<td>PR</td>
<td>PROG</td>
</tr>
<tr>
<td>PSB=(psbName,... psbName)</td>
<td>The variable represents a PSB name. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by PSB name. You can use wildcard characters to qualify variables. The + character replaces any single character, and the * character replaces any number of characters at the end of the variable. To specify multiple variables, separate each variable with a comma. The specification can extend to multiple lines. For example: PSB=(ABC*,D+F*,GHIJK, PSB6,PSB7)</td>
</tr>
<tr>
<td>REPORTID=name</td>
<td>Each trace print must have a unique identification provided by REPORTID. This is the only required keyword. REPORTID is also used as the ddname of the output data set. The value can be up to eight characters long, and special characters are allowed.</td>
</tr>
<tr>
<td>REGION=(rgnName,... rgnName)</td>
<td>The variable represents a region name. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by region name. You can use wildcard characters to qualify variables. The + character replaces any single character, and the * character replaces any number of characters at the end of the variable. To specify multiple variables, separate each variable with a comma. The specification can extend to multiple lines. For example: REGION=(ABC*,D+F*,GHIJK, RGN6,RGN7)</td>
</tr>
<tr>
<td>Keyword and Operand</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>RE</td>
<td>RESPONSE&lt;nnnnnn</td>
</tr>
<tr>
<td>&gt;nnnnnn</td>
<td>=nnnnnn</td>
</tr>
<tr>
<td>RGNID=(nnn,...nnn)</td>
<td>The keyword selects only transactions from the specified region ID or IDs. Valid region IDs are 1 to 999. To specify multiple region IDs, separate each value with a comma. The specification can extend to multiple lines. For example: RGNID=(1,2,3,4,5,6,7)</td>
</tr>
<tr>
<td>STRAC=YES</td>
<td>NO</td>
</tr>
<tr>
<td>Keyword and Operand</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| TERM=(ltcName,... ltcName) | The variable represents an LTERM name, Tpipe name, or CICS terminal ID. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by LTERM name, tpipe name, or CICS terminal ID. You can use wildcard characters to qualify variables. The + character replaces any single character, and the * character replaces any number of characters at the end of the variable. To specify multiple variables, separate each variable with a comma. The specification can extend to multiple lines. For example: `TERM=(ABC*,D+F*,GHIJK,CICST10,LTERM6,TPIPE7)` Additionally, you can use the following keywords instead of specific or qualified names:  
  - TPIPE; transactions that came from a tpipe  
  - APPC; transactions that came from APPC  
  - SYNCLOCK; transactions that originated from systems synchronized to the local IMS clock, including the local system  
  - MSCCLOCK; nonlocal transactions only from systems synchronized to the local IMS clock  
  - IMSCON; transactions from IMS Connect as long as the BMC Energizer for IMS Connect product was installed with it  
  - MQS; transactions from WebSphere MQ |
<p>| T | TIME=hhmm | hhmm-hhmm | The variable represents a start time or time period. The keyword selects a subset of the trace entries in the online trace buffer or trace log data set by a start time or time period. When the start time is higher than the end time (for example, TIME=2000-0300), 24 hours are added. |
| TITLE1=title | The title value is centered on the first line of each page of the report. The value can be up to 60 characters long. If the TITLE1 keyword is not included, the title is left blank on the report. |
| TITLE2=title | The secondary title is centered on the second line of each page of the report. The value can be up to 60 characters long. If the TITLE2 keyword is not included, the secondary title is taken from the title specified when the trace was created. |</p>
<table>
<thead>
<tr>
<th>Keyword and Operand</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRACEID=*id</td>
<td>BLANK</td>
</tr>
<tr>
<td></td>
<td>The DD statement TRACEDIR must be present before this keyword is processed. If the TRACEDIR DD statement is not present, the TRACEID keyword is ignored.</td>
</tr>
<tr>
<td>TRANS=(*transName... *transName)</td>
<td>The variable represents a transaction name. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by transaction name. You can use wildcard characters to qualify variables. The + character replaces any single character, and the * character replaces any number of characters at the end of the variable. To specify multiple variables, separate each variable with a comma. The specification can extend to multiple lines. For example:</td>
</tr>
<tr>
<td>TY</td>
<td>TYPE=*xxx</td>
</tr>
<tr>
<td></td>
<td>■ BMP; batch message processing or Java batch message processing (JBP) region</td>
</tr>
<tr>
<td></td>
<td>■ CON; conversational MPP or JMP regions</td>
</tr>
<tr>
<td></td>
<td>■ DBT; DBCTL threads (CICS and ODBA)</td>
</tr>
<tr>
<td></td>
<td>■ FPU; Fast Path utility regions</td>
</tr>
<tr>
<td></td>
<td>■ MDP; Fast Path message-driven regions</td>
</tr>
<tr>
<td></td>
<td>■ MPP; message processing or Java message processing (JMP) regions</td>
</tr>
<tr>
<td></td>
<td>■ NDP; Fast Path non-message-driven regions</td>
</tr>
<tr>
<td></td>
<td>■ NOTDBT; exclude DBCTL threads</td>
</tr>
<tr>
<td></td>
<td>■ TPI; message processing regions currently executing an explicit CPI-C program</td>
</tr>
</tbody>
</table>
### Keyword and Operand

<table>
<thead>
<tr>
<th><strong>Keyword and Operand</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>TRANTYPE=xxx</td>
<td>The variable represents a transaction type. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by transaction type. Replace the variable with one of the following transaction types:</td>
</tr>
<tr>
<td></td>
<td>■ DLI; all DL/I transactions</td>
</tr>
<tr>
<td></td>
<td>■ DB2; all DB2 transactions</td>
</tr>
<tr>
<td></td>
<td>■ FP; all Fast Path transactions</td>
</tr>
<tr>
<td></td>
<td>■ ALL; all types of transactions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US</th>
<th>USER=(id,... id)</th>
<th>The variable represents a user or LTERM ID. The keyword selects a subset of the trace entries in the online trace storage buffer or trace log data set by user or LTERM. You can use wildcard characters to qualify variables. The + character replaces any single character, and the * character replaces any number of characters at the end of the variable. To specify multiple variables, separate each variable with a comma. The specification can extend to multiple lines. For example:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USER=(ABC*,D+F*,GHIJK, USER6,USER7)</td>
<td></td>
</tr>
</tbody>
</table>

### Start and stop the trace directory

At times, you may need to stop and start the trace directory.

The History Trace view (HT) provides commands to do so.

#### Stop the trace directory

Use the STOPDIR primary command on the HT view to close and deallocate the trace directory. Active trace logging continues. All history trace commands except STARTDIR are disabled and a new trace logging request cannot be initiated. A trace directory is required for trace logging to occur.

#### Start the trace directory

Use the STARTDIR primary command on the HT view to reallocate the trace directory and open it with a disposition of old. If the STARTDIR command is successful, all history trace commands are re-enabled and new trace logging requests can be initiated. If the STARTDIR command is not successful, all other history trace commands remain disabled and trace logging cannot be initiated.
Monitor IMS workloads and resources

You can request the workload monitor and resource monitor services and view information about monitor activities.

See the following topics for more information:

- “About monitor services” on page 157
- “Request a monitor service” on page 164
- “View monitor information” on page 170
- “Monitor administration” on page 176
- “IMS workload monitors” on page 182
- “IMS resource monitors” on page 186

About monitor services

Monitors are services that collect data measurements about resource usage or workload performance and detect warning conditions in response to a user request.

Each monitor service is a timer-driven monitor that:

- Measures resource or workload status, count of activity, or usage percentage
- Calculates a ratio of resource usage over time
- Detects warning conditions and issues messages

The measurement obtained at each sampling interval is compared to the user-defined threshold for that request. The threshold comparison detects conditions for which user-defined warning messages can be issued. The measurements are stored
online so that a plot of the recent history of a monitor request can be viewed at any time. Optional service parameters narrow the scope of a single request and allow several requests for the same monitor service to be active concurrently.

**Types of monitor services**

Workload and resource monitor services are available.

**Workload monitor services**

The following workload monitor services are available:

- IBM DB2 activity monitors measure the amount of dependent region CPU time that is used to make DB2 requests and the number of DB2 calls made through the IMS Attach facility.

- Fast Path activity monitors measure the use of IMS Fast Path resources.

- Global region call monitors provide performance data about all region calls that are issued during IMS application program processing.

- Elapsed timing monitors measure the transaction input queue time, elapsed transaction execution time, and transaction response time.

- Transaction monitors measure the number of transactions that are processed by IMS.

For more information about the workload monitor services, see “IMS workload monitors” on page 182.

**Resource monitor services**

The following resource monitor services are available:

- MFS (Message Format Service) services measure MFS I/O and MFS requests.

- Queueing services measure the performance of the input queue, the message queue, the MSC links, and the output queue.

- Scheduling services measure transaction arrivals and transactions that are processed.
- Dependent region services measure database and message queue access by programs that are executing in the dependent regions.
- Database services measure the DL/I buffer pool activity.
- IMS internals services measure IMS internal activity for program isolation, pools, logging, latching, and pool allocation.
- IMS interaction services measure the operating system resources that are used by IMS interaction with the operating system.
- IRLM services measure critical IRLM activity when IMS IRLM is used.

For more information about the resource monitor services, see “IMS resource monitors” on page 186.

**Data types measured**

The following types of automatic service measurements can be taken periodically and viewed by hyperlinking to the monitor’s plot view:

- **COUNT**
  An activity count over time (for example, the number of lock requests within a specified time interval). When COUNT data is plotted, in addition to the counts, rates-per-second are calculated automatically and shown for the displayed time intervals (AVG/SEC).

- **AVERAGE**
  The quantity over time (for example, the average value of transaction response time in the specified interval). When AVERAGE data is plotted, in addition to the averages, the event counts used to calculate the averages are also shown for the displayed time intervals (EVENTS). For example, for the plotted average response time, the number of transactions measured is shown.

- **STATUS**
  The status level at the moment of measurement (for example, queue lengths or level of PI enqueues)

- **PERCENT**
  The resource usage at the moment of measurement, expressed as a percentage of the maximum (for example, percent pool utilization)
WARNING ONLY

WARNING ONLY is a condition measurement that can be checked against a warning threshold (for example, the number of DL/I calls performed in a region since the last program scheduling). This measurement does not produce a plot.

How data is measured

All monitor services, except the global region call monitors, measure data from the transaction records passed to the PAS from the Event Collector at transaction completion (sync point).

The transaction records contain an identification of the specific transaction, timestamps, elapsed timings, and activity indicators. The many identification fields allow flexible workload selections by transaction, program, PSB, region, class, LTERM, user ID, program type, and transaction type.

Note

If the SAPEXIT is installed as described in the *MainView for IMS and MainView for DBCTL Customization Guide*, the SAP identifier replaces the IMS transaction code in the transaction records. The replacement allows the monitors to collect data based on the SAP identifier instead of the transaction code.

The data collected by the monitors is affected by the following situations:

- Data items from the transaction records are posted only at transaction completion (sync point). All transactions that are completed within a requested monitor sampling interval are included in the value that is calculated for that interval. For example, a program currently in a loop does not show up immediately in an increased measured response time. (The transaction is not completed and, therefore, cannot be posted.)

- To provide valid averages per transaction, monitors collecting Fast Path activity collect data only from transactions that made at least one Fast Path call. Monitors collecting DB2 activity collect data only from transactions that made at least one DB2 call.

- To calculate meaningful values over time, only response-type transactions are evaluated, which are those running in MPP (message processing program) regions, in JMP (Java message processing program) regions, in MDP (Fast Path message-driven program) regions, or under DBCTL threads. BMP and JBP transactions are not measured by these monitors because they would skew the results.

For example, the average elapsed time of 100 MPP transactions is measured at one second. If a BMP transaction that ran for two hours (7200 seconds) were included
with the MPP transactions, the average elapsed time would be 72.3 seconds. The same is true of counts, such as DB2 calls. If DB2 calls were made by this BMP transaction, the calls would be posted only when the BMP transaction is completed even though they occur throughout the two-hour life of the transaction.

To avoid this skewing problem and to provide measures of total system activity, other monitor services measure call activity as it occurs in the regions. These services, described in “Global region calls monitors” on page 184, are global services because they can measure MPP, JMP, BMP, JBP, and DBCTL workloads and do not require that a transaction be completed before its effects can be seen.

Warning conditions

When requesting a monitor service, you can define a value that is compared to the measurement taken during the requested sampling interval.

The comparison establishes a warning condition when the measurement either exceeds a maximum threshold or is less than a minimum threshold.

When the monitor service detects an exception, it automatically sends a message to the PAS journal and to the system console upon user request. The message text contains the following elements:

- A unique message ID
- The title of the service
- The measured value
- The sampling interval (if applicable)
- The defined threshold

The monitor service sends an exception-cleared message with the service title to the PAS Journal when the service no longer detects a warning condition.

When you start a monitor service you can specify the following options:

- A user-defined threshold value
  Each new measurement of the system variable made at the expiration of an interval is compared to the threshold value.
  When the measurement either exceeds a maximum threshold or is less than a minimum threshold, a warning condition exists and warning messages are sent automatically to the PAS journal log.
To send warning messages to the operating system console through the write-to-operator (WTO) facility in addition to the PAS journal

The number of warnings to be sent for one exception condition, the number of times the exception is detected before the first message, and the number of times the exception is detected between messages.

You can specify these options to prevent situations where a condition often varies just above and below the threshold, triggering many messages. For example, a condition could be checked every 30 seconds with a warning only if that condition persists for 3 minutes, a repeated warning only after another 5 minutes, and a limit of 10 warnings.

### Monitor request title

A monitor request is identified with a title.

The title for each request is shown in the:

- Plot view of the data collected by the requested monitor
- AT, MONACTV, SM, MONSERV, MONSUMM, and MONWARN views
- Warning message that is issued when the measurement of the resource exceeds a threshold defined for the monitor

If a parameter is specified for a requested monitor, the parameter is shown with the title. If a parameter is not used for the monitor request, the plot view and the warning message show the default (TOTAL) instead.

Each monitor service has a default title that can be customized. This process is described in the *MainView for IMS and MainView for DBCTL Customization Guide*. The default titles of all the monitor services are included in the service descriptions in this manual.

When requesting a monitor service, you can specify a a title to make it more meaningful. A user-defined title can be up to 24 characters long. You can define the title when you request a monitor.

### Warning message format

Each monitor service has a unique warning message associated with it. A warning message is issued when a warning condition:
Warning condition detected

The following format is used for warning messages when a warning condition is detected:

\[ ccnnn0W (nn) hh:mm:ss title (parm) = v [IN x intrvl] (>thrshld) ***** \]

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccnnn0W</td>
<td>Warning message ID issued by the requested monitor service</td>
</tr>
<tr>
<td></td>
<td>The variable:</td>
</tr>
<tr>
<td></td>
<td>■ ( cc ) is a two-character code indicating the service type (for example, RM indicates Resource Monitor)</td>
</tr>
<tr>
<td></td>
<td>■ ( nnn ) is a numerical message identifier associated with the requested service</td>
</tr>
<tr>
<td></td>
<td>0 indications that the detected threshold currently exists.</td>
</tr>
<tr>
<td></td>
<td>( W ) is a warning message indicator.</td>
</tr>
<tr>
<td>( nn )</td>
<td>Number of times the warning message was issued</td>
</tr>
<tr>
<td>( hh:mm:sss )</td>
<td>Timestamp in hours, minutes, and seconds</td>
</tr>
<tr>
<td>( title )</td>
<td>Title for the service (See “Monitor request title” on page 162.)</td>
</tr>
<tr>
<td>( parm )</td>
<td>Optional parameter that was specified when the request was made</td>
</tr>
<tr>
<td>( v )</td>
<td>Current measured value</td>
</tr>
<tr>
<td>( IN x intrvl )</td>
<td>Time specified for the resource sampling</td>
</tr>
<tr>
<td></td>
<td>The variable:</td>
</tr>
<tr>
<td></td>
<td>■ ( x ) is ( nn, nnnn, hh:mm:sss ), or ( mm:sss ) (( n ) is a numeric value, ( hh ) is the number of hours, ( mm ) is the number of minutes; and ( ssss ) is the number of seconds)</td>
</tr>
<tr>
<td></td>
<td>■ ( intrvl ) is units of time measurement, either SEC or MIN</td>
</tr>
<tr>
<td></td>
<td>This measurement is included in the warning message only when a COUNT data type is measured. (See “Data types measured” on page 159.)</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Time measurement units are not used for ( hh:mm:ss ).</td>
</tr>
</tbody>
</table>
Variable | Description
--- | ---
(>thrshld) | Threshold value specified when the monitor service request was made
 | A less-than character (>) character indicates the sampled value is less than or equal to the threshold as specified by the request.

***** | Emphasizes the message in the PAS journal log

**Warning condition no longer exists**

The following format is used for warning messages when the condition that caused the warning no longer exists:

```
cnnnI hh:mm:ss title (parm) NO LONGER > value
```

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ccnnnI</td>
<td>Same as the warning message ID number except a 1 replaces the 0 in the last digit and I replaces W. The 1 indicates the detected threshold no longer exists. The I indicates this message is informational.</td>
</tr>
<tr>
<td>title</td>
<td>Same as the warning message title</td>
</tr>
<tr>
<td>(parm)</td>
<td>Same as the warning message parameter</td>
</tr>
<tr>
<td>value</td>
<td>Threshold value specified when the monitor service request was made</td>
</tr>
</tbody>
</table>

**Note**
The target system is identified in these messages. In the Journal log, the target name is in the origin identifier field (scroll left to view). WTO messages have both the PAS ID and the target (TGT=xxxx) appended at the end of the message text.

**Request a monitor service**

When you request a monitor service, a data entry dialog is opened. On the data entry dialog you specify the following information:

- Parameter for the service
- Time interval between successive monitor service invocations
- Start, stop, and quiesce information
- When and where warning messages are issued
Methods for requesting a monitor service

A monitor service can be requested in several ways:

- Select a monitor service on the Start Monitors (SM or MONSERV) view. (See “Making a monitor service request” on page 165.)

- Replicate an active monitor request. (See “Replicating a monitor service request” on page 167.)

- Issue a SET service request. (See “Issuing a SET service request” on page 169.)

- Start a monitor service from BBPARM with other service requests.
  Define a series of SET requests as a member of your PAS BBPARM data set that can be started automatically when the system starts or at your request.

- Start a monitor service from a MainView AutoOPERATOR EXEC.
  Write an EXEC that starts a monitor service.
  Use the IMFEXEC IMFC command followed by the service name, optional parameters, and an identifier for the target system; for example:
  \[ \text{IMFEXEC IMFC SET REQ=DBTOT I=00:06:00 TARGET=PROD1} \]

Making a monitor service request

Perform the following tasks to request a monitor service:

1. Type SM or MONSERV on the COMMAND line of any view and press Enter.

   The Start Monitors (SM or MONSERV) view is displayed, as shown in Figure 111 on page 166. The Start Monitors view lists all available monitors.

   To learn about a monitor service, in the CMD field next to the service, type H and press Enter. A description of the service, its parameters, and the syntax of its warning message are displayed. A brief description of the monitors is in “IMS workload monitors” on page 182 and “IMS resource monitors” on page 186.
To learn about a field on the Start Monitors view, position the cursor on the field and press the Help key.

**Figure 111: Start Monitors view (SM or MONSERV)**

<table>
<thead>
<tr>
<th>Command</th>
<th>Num</th>
<th>Title</th>
<th>Parm Type</th>
<th>Area</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>$CBMP</td>
<td></td>
<td>TOTAL BMP CALLS</td>
<td>(IDENTIFIER)</td>
<td>IWGBL</td>
<td></td>
</tr>
<tr>
<td>$CDBT</td>
<td></td>
<td>TOTAL DBT (CICS) CALLS</td>
<td>(IDENTIFIER)</td>
<td>IWGBL</td>
<td></td>
</tr>
<tr>
<td>$CMPP</td>
<td></td>
<td>TOTAL MPP CALLS</td>
<td>(IDENTIFIER)</td>
<td>IWGBL</td>
<td></td>
</tr>
<tr>
<td>$CTOT</td>
<td></td>
<td>TOTAL PROGRAM CALLS</td>
<td>(IDENTIFIER)</td>
<td>IWGBL</td>
<td></td>
</tr>
<tr>
<td>$CDBG</td>
<td></td>
<td>DB2 DATABASE CALLS</td>
<td>(IDENTIFIER)</td>
<td>IWDB2</td>
<td></td>
</tr>
<tr>
<td>$CIGC</td>
<td></td>
<td>CI CONTENTIONS</td>
<td>(IDENTIFIER)</td>
<td>IWFP</td>
<td></td>
</tr>
<tr>
<td>$OBAT</td>
<td></td>
<td>OVERFLOW BUFFER WAITS</td>
<td>(IDENTIFIER)</td>
<td>IWFP</td>
<td></td>
</tr>
<tr>
<td>$PROC</td>
<td></td>
<td>TRANS PROCESSED</td>
<td>(IDENTIFIER)</td>
<td>IWFP</td>
<td></td>
</tr>
<tr>
<td>$SOBT</td>
<td></td>
<td>DB2 SPECIAL CALLS</td>
<td>(IDENTIFIER)</td>
<td>IWDB2</td>
<td></td>
</tr>
<tr>
<td>$CRSP</td>
<td></td>
<td>AVG IMS CONNECT RESPONSE</td>
<td>(IDENTIFIER)</td>
<td>IWTRN</td>
<td></td>
</tr>
<tr>
<td>$ELAP</td>
<td>1</td>
<td>AVG ELAP TIME</td>
<td>(IDENTIFIER)</td>
<td>IWTRN</td>
<td></td>
</tr>
<tr>
<td>$INPO</td>
<td></td>
<td>AVG INPUT Q TIME</td>
<td>(IDENTIFIER)</td>
<td>IWTRN</td>
<td></td>
</tr>
<tr>
<td>F1=HELP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2=SPLIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3=END</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4=RETURN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5=RFIND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F6=RCHANGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F7=UP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F8=DOWN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F9=SWAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F10=LEFT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F11=RIGHT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F12=RETRIEVE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2 In the CMD field next to the service that you want to start, type S and press Enter.

The Start Workload Monitor dialog is displayed, as shown in **Figure 112 on page 166**.

Depending on the type of monitor service selected (see “Types of monitor services” on page 158), the Specify Workload Selections section might not be shown and the exact workload selection fields listed will vary.

**Figure 112: Start Workload Monitor dialog**

<table>
<thead>
<tr>
<th>COMMAND ====&gt;</th>
<th>Start Workload Monitor</th>
<th>SCROLL ====&gt;</th>
<th>CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>$CBMP - TOTAL BMP CALLS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Monitor Attributes:**

- **PARM** (Identifier): START (hh:mm:ss)
- **INTERVAL** 00:01:00 (hh:mm:ss): STOP (hh:mm:ss/mins)
- **WVAL** (Warning value): WIF 1 (Intvlss to 1st msg)
- **WMGS** (Log warnings to): WIN 1 (Message Intervals)
- **WLIM** 10 (Warrning limit): RST HOT (HOT,PUR,QIS)
- **TITLE** (Maximum PLOT X-Axis value): QIS YES (YES/NO)
- **PLOTMAX** (Maximum PLOT X-Axis value): (1-4 Range Distr. Upper Limits)
- **RANGES** (NO,ATSTOP,ATPD,ATINTVL,ATWARN)
- **LOG** (NO,ATSTOP,ATPD,ATINTVL,ATWARN)

**Specify Workload Selections:**

- CALLYPE (ALL, MSG, DB2, DLI)

**ENTER to process the request**

**END to cancel the request**

**HELP to display related help**
3 Specify the monitor service criteria.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARM</td>
<td>Unique name for the request</td>
<td>Blanks</td>
</tr>
<tr>
<td>START</td>
<td>When to start the monitor service</td>
<td>Next full minute</td>
</tr>
<tr>
<td>INTERVAL</td>
<td>Time interval between successive service invocations</td>
<td>Not applicable</td>
</tr>
<tr>
<td>STOP</td>
<td>When to stop the monitor service</td>
<td>24 hours</td>
</tr>
<tr>
<td>WVAL</td>
<td>Warning threshold for the monitor request</td>
<td>0, no warnings</td>
</tr>
<tr>
<td>WIF</td>
<td>Number of intervals before the first warning message</td>
<td>1</td>
</tr>
<tr>
<td>WMSG</td>
<td>Where the warning messages are to be sent</td>
<td>LOG</td>
</tr>
<tr>
<td>WIN</td>
<td>Number of intervals between warning messages</td>
<td>1</td>
</tr>
<tr>
<td>WLIM</td>
<td>Maximum number of warning messages</td>
<td>10</td>
</tr>
<tr>
<td>RST</td>
<td>Restart option to be used when a service is quiesced because of an inactive target region</td>
<td>HOT</td>
</tr>
<tr>
<td>QIS</td>
<td>Action to be taken when an IMS target is not active</td>
<td>YES</td>
</tr>
<tr>
<td>TITLE</td>
<td>Display title for the monitor service (see “Monitor request title” on page 162)</td>
<td>Name of the service</td>
</tr>
<tr>
<td>PLOTMAX</td>
<td>Maximum value to be shown on X-axis boundary for a PLOT of this monitor request.</td>
<td>Not applicable</td>
</tr>
<tr>
<td>RANGES</td>
<td>One to four upper-range limit values for the PLOT range distribution</td>
<td>No range</td>
</tr>
<tr>
<td>LOG</td>
<td>Logging option specification for the monitor service</td>
<td>No logging</td>
</tr>
<tr>
<td>Specify Workload Selections</td>
<td>Criteria used to limit or filter monitor data collection to a specific part of the IMS workload</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

For additional information about a field, press **F1** for online Help.

4 Press **Enter**.

The service monitor request is started.

**Replicating a monitor service request**

Perform the following tasks to replicate a monitor service:
1 Type AT or MONACTV on the COMMAND line of any view and press Enter.

The Active Monitors (AT or MONACTV) view is displayed, as shown in the following figure.

To learn about a monitor service, in the CM field next to the service, type H and press Enter. A description of the service, its parameters, and the syntax of its warning message are displayed. A brief description of the monitors is in “IMS workload monitors” on page 182 and “IMS resource monitors” on page 186.

To learn about a field on the Active Monitors view, position the cursor on the field and press the Help key.

**Figure 113: Active Monitors view (AT or MONACTV)**

```
15SEP2009  18:05:47 ------- MainView WINDOW INTERFACE (V6.0.00) ----------------
COMMAND ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =AT=================I11Z=====*========15SEP2009==18:05:47====MVIMS====D====4
-                         Monitors Active

Commands: SM (Start Monitors)           MONSUMM     MONWARN     JOURNAL
Line CMDs: S (Select),  W (Show),       M (Modify)
P (Purge),   R (Replicate),  Z (Stop),  H (Help)

CM Serv  Parm     Title                   Monitor Warning
-- ----- -------- ----------------------- Value   Value     -8-6-4-2-0+2+4+6+8+
$CBMP          TOTAL BMP CALLS          0.0000  1.0000 |          W
$CDBT          TOTAL DBT (CICS) CALLS   0.0000  1.0000 |          W
$CMPP          TOTAL MPP CALLS          948.0   1.0000 |          W
$CTOT          TOTAL PROGRAM CALLS      948.0   1.0000 |          W
$CDB2          DB2 DATABASE CALLS       0.0000  1.0000 |          W
```

2 In the CM field of the request whose values you want to copy, type R and press Enter.

The Replicate Workload Monitor dialog is displayed, as shown in the following figure, with the values from the copied request duplicated in the dialog.

**Figure 114: Replicate Workload Monitor dialog**

```
COMMAND ===> Replicate Workload Monitor SCROLL ===> CSR

Monitor Attributes:
PARM MARYTEST (Identifier) START (hh:mm:ss)
INTERVAL 00:01:00 (hh:mm:ss) STOP (hh:mm:ss/mins)
WWAL (Warning value) WIF 1 (Intvls to 1st msg)
WMMSG (Log warnings to) WIN 1 (Message Intervals)
WLIM 10 (Warnings limit) RST HOT (HOT,PUR,QIS)
QIS YES (YES/NO)

TITLE TOTAL DBT (CICS) CALLS
PLOTMAX (Maximum PLOT X-Axis value)
RANGES (1-4 Range Distr. Upper Limits)
LOG (NO,ATSTOP,ATPD,ATINTVL,ATWARN)

Specify Workload Selections: CALLTYPE (ALL, MSG, DB2, DLI)

ENTER to process the request
END to cancel the request
HELP to display related help
```
3 \textit{(optional)} Adjust the values as needed.

To change a value, type over it.

For additional information about a field, press F1 for online Help.

4 Press \textbf{Enter}.

The monitor service request is started and the Active Monitors (AT or MONACTV) view is displayed with the new request listed.

**Issuing a SET service request**

Perform the following tasks to issue a SET service request:

1 Type \textbf{SM} or \textbf{MONSERV} on the COMMAND line of any view and press \textbf{Enter}.

The Start Monitors (SM or MONSERV) view is displayed, which lists all available monitors.

To learn about a monitor service, in the CMD field next to the service, type \textbf{H} and press \textbf{Enter}. A description of the service, its parameters, and the syntax of its warning message are displayed. A brief description of the monitors is in “IMS workload monitors” on page 182 and “IMS resource monitors” on page 186.

To learn about a field on the Start Monitors view, position the cursor on the field and press the Help key.

2 Type \textbf{BLK} on the COMMAND line of and press \textbf{Enter}.

The Issue SET Service Requests dialog is displayed, as shown in Figure 115 on page 170.
The **Target** field displays the name of the current target context for which the SET service requests will be processed.

**Figure 115: Issue SET Service Requests dialog**

<table>
<thead>
<tr>
<th>COMMAND ===&gt;</th>
<th>Issue SET Service Requests</th>
<th>SCROLL ===&gt; CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>I11Z</td>
<td></td>
</tr>
<tr>
<td>Start AUTOBLK</td>
<td>(BBIPARM member containing the timer requests)</td>
<td></td>
</tr>
<tr>
<td>Timer Request</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ENTER to process the request
END to cancel the request
HELP to view related help

3 Specify the following information:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start AUTOBLK</td>
<td>Issues special BLK requests or monitor service requests that are predefined in the BBPARM data set</td>
</tr>
<tr>
<td></td>
<td>These are also referred to as auto block members.</td>
</tr>
<tr>
<td>Timer Request</td>
<td>Allows for the specification of a monitor service request that needs to be started</td>
</tr>
<tr>
<td></td>
<td>For example: REQ=RESP TEST,WVAL=0.05,TRAN=AB*</td>
</tr>
</tbody>
</table>

For additional information about a field, press F1 for online Help. For more information about using SET requests, see the *MainView for IMS Online Analyzers, Monitors, and Traces Reference Manual*.

4 Press **Enter**.

The service monitor request is started.

**View monitor information**

Once a monitor is active, you can use the following monitor views to view monitor information:

- **“Monitor Overview view (ISERV)” on page 172**
Access monitor views

You can access a monitor view in the following ways:

- Enter the view name on the COMMAND line of any view.
- Enter VIEWS on the COMMAND line of any view and selecting the view from the VIEWS list.
- Select monitor options on EZ menus.

For information about hyperlinking to the monitor views, see the sections that describe the views.

Monitors by Target Summary view (IMON)

The Monitors by Target Summary view (IMON) summarizes the number of monitors started for each target, shows how many of the monitors are in a warning condition, and provides warning values.
### Monitor Overview view (ISERV)

The Monitor Overview view (ISERV) lists each monitor that is collecting data from active IMS targets in the current context.

Monitors are ranked by their reported average percentage of warning threshold over the current interval. Average percentage of warning measures how close the reported data is to the warning threshold set for the monitor that collects the data.

You can hyperlink to the ISERV view from the:

- **Target** or **Actv Mntrs** fields in the IMON view
- **Area** and **Serv** fields in the IMAREAZ view
- **Serv** field in the ISOVER view

### Monitors by Monitor Type view (ISOVER)

The Monitors by Monitor Type view (ISOVER) provides a performance summary of monitors that are collecting data from active IMS targets in the current context.

<table>
<thead>
<tr>
<th>Serv</th>
<th>Stat</th>
<th>Parm</th>
<th>0.....50.....100</th>
<th>Value</th>
<th>Value</th>
<th>Type</th>
<th>Area</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPHIT ACTV</td>
<td>113</td>
<td>*************</td>
<td>5.8622</td>
<td>80.0000</td>
<td>Min</td>
<td>DB</td>
<td>IMSxxx</td>
<td></td>
</tr>
<tr>
<td>WHT ACTV</td>
<td>101</td>
<td>*************</td>
<td>76.1308</td>
<td>80.0000</td>
<td>Min</td>
<td>DB</td>
<td>IMSxxx</td>
<td></td>
</tr>
<tr>
<td>DBHIT ACTV</td>
<td>91</td>
<td>*************</td>
<td>87.3416</td>
<td>80.0000</td>
<td>Min</td>
<td>DB</td>
<td>IMSxxx</td>
<td></td>
</tr>
<tr>
<td>ARVTR ACTV</td>
<td>82</td>
<td>*************</td>
<td>496.0000</td>
<td>600.0000</td>
<td>Max</td>
<td>SCHED</td>
<td>IMSxxx</td>
<td></td>
</tr>
<tr>
<td>PRCTR ACTV</td>
<td>82</td>
<td>*************</td>
<td>494.0000</td>
<td>600.0000</td>
<td>Max</td>
<td>SCHED</td>
<td>IMSxxx</td>
<td></td>
</tr>
</tbody>
</table>
Data from similar monitors are combined and then ranked by the average percentage of warning threshold calculated for the current interval. Average percentage of warning measures how close the reported data is to the warning threshold set for the monitor that collects the data.

**Figure 118: Monitors by Monitor Type view (ISOVER)**

<table>
<thead>
<tr>
<th>ServParm</th>
<th>Avg % Warning</th>
<th>Avg Value</th>
<th>Warn Value</th>
<th>Type</th>
<th>Area</th>
<th>Montrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBHIT</td>
<td>92 86.6580</td>
<td>80.0000</td>
<td>80.0000</td>
<td>Minimum DB</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>VHIT</td>
<td>91 70.5345</td>
<td>80.0000</td>
<td>80.0000</td>
<td>Minimum IMVS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ECSAU</td>
<td>83 71.0000</td>
<td>85.0000</td>
<td>Maximum IMVS</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGMSG</td>
<td>29 22.0000</td>
<td>75.0000</td>
<td>Maximum INTNL</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSBP</td>
<td>14 12.0000</td>
<td>85.0000</td>
<td>Maximum INTNL</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSBW</td>
<td>8 7.0000</td>
<td>85.0000</td>
<td>Maximum INTNL</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>@RESP FAST</td>
<td>2 0.0276</td>
<td>1.0000</td>
<td>Maximum IWTRN</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Monitors by Target Area view (IMAREAZ)**

The Monitors by Target Area view (IMAREAZ) summarizes the number of monitors by target area and shows their status.

**Figure 119: Monitors by Target Area view (IMAREAZ)**

<table>
<thead>
<tr>
<th>Target Area</th>
<th>Serv</th>
<th>Nbr</th>
<th>% Warning</th>
<th>Avg Mon</th>
<th>Avg Warn</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSxxx IWDB</td>
<td>3</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx IWFP</td>
<td>3</td>
<td>0.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx IWTR</td>
<td>9</td>
<td>64.7990</td>
<td>1.4444</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx SCHE</td>
<td>9</td>
<td>64.8</td>
<td>133.3333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx IMVS</td>
<td>6</td>
<td>61.2</td>
<td>1.1K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx DB</td>
<td>10</td>
<td>52.3</td>
<td>75.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx INTN</td>
<td>19</td>
<td>5.6</td>
<td>13.4737</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx QUEU</td>
<td>20</td>
<td>17.5</td>
<td>48.5000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx REGN</td>
<td>5</td>
<td>0.0000</td>
<td>21.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx LOCK</td>
<td>5</td>
<td>289.2000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx MFS</td>
<td>3</td>
<td>1.1K</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSxxx IWGB</td>
<td>4</td>
<td>675.5000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Monitor Summary view (IMSUM)

The Monitor Summary view (IMSUM) provides a summary of all active monitors by monitor name for each target in the view context.

**Figure 120: Monitor Summary view (IMSUM)**

No hyperlinks are available on the view.

Monitor Requests Summary view (MONSUMM)

The Monitor Requests Summary view (MONSUMM) displays the current status of all active monitors.

It shows each request, the current sampling, the defined threshold, and a graphic summary of all the current measured values compared to defined thresholds. The view also displays the status of the PAS and the Event Collector.

**Figure 121: Monitor Requests Summary view (MONSUMM)**

No hyperlinks are available on the view.
Monitors in Warning view (IMWARN)

The Monitors in Warning view (IMWARN) displays only monitors that are in a warning condition, and it shows the defined threshold for each target.

Figure 122: Monitors in Warning view (IMWARN)

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>View</th>
<th>Command</th>
<th>Scroll</th>
<th>Win Selection</th>
<th>Monitor ID</th>
<th>Monitors</th>
<th>Warning</th>
<th>Threshold</th>
<th>Type</th>
<th>Area</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007</td>
<td>12:27:45</td>
<td>MainView WINDOW INTERFACE</td>
<td>===&gt;</td>
<td>===&gt;</td>
<td>1</td>
<td>W1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Vx.x.xx)</td>
<td></td>
<td></td>
<td></td>
<td>IMWARN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>HPHIT</td>
<td>180.0</td>
<td>+</td>
<td>0.0000</td>
<td>80.0000</td>
<td>DB</td>
<td>I7XIMS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>OQLT</td>
<td>111.8</td>
<td>+</td>
<td>559.0000</td>
<td>500.0000</td>
<td>QUEUE</td>
<td>I7XIMS</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Monitor Warnings Summary view (MONWARN)

The Monitor Warnings Summary view (MONWARN) displays the current status of all monitors that are in a warning condition.

It shows each request, the current sampling, the defined threshold, and a graphic summary of all the current measured values compared to defined thresholds. The view also displays the status of the PAS and the Event Collector.

Figure 123: Monitor Warnings Summary view (MONWARN)

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>View</th>
<th>Command</th>
<th>Scroll</th>
<th>Win Selection</th>
<th>Monitor ID</th>
<th>Monitors</th>
<th>PAS Status</th>
<th>PAS Started</th>
<th>EC Status</th>
<th>EC Started</th>
<th>Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>16SEP2009</td>
<td>13:39:33</td>
<td>MainView WINDOW INTERFACE</td>
<td>===&gt;</td>
<td>===&gt;</td>
<td>1</td>
<td>W1</td>
<td></td>
<td>ACTV</td>
<td>22:55:01</td>
<td>ACTV</td>
<td>00:01:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(V6.0.00)</td>
<td></td>
<td></td>
<td></td>
<td>MONWARN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TOTAL BMP CALLS</td>
<td>933.0</td>
<td>1.0000</td>
<td>-8-6-4-2-0+2+4+6+8</td>
<td>W</td>
<td>00:01:30</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TOTAL PROGRAM CALLS</td>
<td>933.0</td>
<td>1.0000</td>
<td>W</td>
<td>00:01:30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Plot views for monitors

When you select a monitor from the AT, MONACTV, ISERV, IMSUM, MONSUMM, IMWARN, or MONWARN view, a plot of the data collected by the selected monitor is displayed.
Each plot has a hyperlink to a corresponding view or service of the MainView for IMS product that you can use for detailed analysis of your target’s performance. The hyperlink field is directly below the monitor name in the upper left corner of the view. The hyperlink in CSA Utilization Monitor view (ICSAUT) accesses the Real Storage Statistics (IRS) view.

Monitor administration

The following views are used to perform administrative functions for monitor service requests:

- PAS Information (PASINFO) view; see “PAS Information view (PASINFO)” on page 176
- Active Monitors (AT or MONACTV) view; see “Active Monitors view (AT or MONACTV)” on page 177
- Start Monitors (SM or MONSERV) view; see “Start Monitors view (SM or MONSERV)” on page 178

PAS Information view (PASINFO)

The PAS Information (PASINFO) view provides general information about the product address space (PAS) and the target.

It also shows information about traces and timers, including status information, some statistics, default parameters that are in effect, and a summary of the active
timer requests. The information is shown for the BBI-SS that is associated with the specified target.

Access the PASINFO view by entering PASINFO on the COMMAND line.

**Figure 125: PAS Information view (PASINFO)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAS ID</td>
<td>List of targets from which to select to change the context</td>
</tr>
<tr>
<td>Target</td>
<td>Active Monitors view (AT or MONACTV) for that target, which displays the list of monitors that have been started for the target</td>
</tr>
<tr>
<td>Active</td>
<td>Active Monitors view (AT or MONACTV) for that target, which displays the list of monitors that have been started for the target</td>
</tr>
<tr>
<td>Other highlighted fields</td>
<td>Monitor Overview (ISERV) view, to show monitors with the status indicated by the field header</td>
</tr>
</tbody>
</table>

**Active Monitors view (AT or MONACTV)**

The Active Monitors view (AT or MONACTV) displays all active monitor service requests in a PAS.

Use the AT or MONACTV view to:
- View a list of active monitor requests
- Display a plot of the data collected by the selected monitor; see “Display a plot view for a monitor” on page 179
- View the options and attributes used to start the monitor service request; see “View request options and attributes” on page 179
- Modify certain options and attributes for a monitor service request; see “Modify request options and attributes” on page 180
- Purge a monitor service request; see “Purge a monitor service request” on page 180
- Replicate a monitor service request; see “Replicating a monitor service request” on page 167
- Stop a monitor service request; see “Stop a monitor service request” on page 181
- Learn about monitor services; see “Learn about monitor services” on page 182

The following hyperlinks are provided in the AT or MONACTV view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serv</td>
<td>A plot view of the data collected by the selected monitor</td>
</tr>
<tr>
<td>Monitor Value</td>
<td>Monitor Overview (ISERV) view, to see the monitor for the selected request</td>
</tr>
<tr>
<td>SM</td>
<td>Start Monitors (SM or MONSERV) view</td>
</tr>
<tr>
<td>MONSUMM</td>
<td>Monitor Requests Summary (MONSUMM) view</td>
</tr>
<tr>
<td>MONWARN</td>
<td>Monitor Warnings Summary (MONWARN) view</td>
</tr>
<tr>
<td>JOURNAL</td>
<td>PAS journal</td>
</tr>
</tbody>
</table>

**Start Monitors view (SM or MONSERV)**

The Start Monitors view (SM or MONSERV) displays all monitor services that are available.

Use the SM or MONSERV view to:

- View a list of monitor services
- Request a monitor service; see “Making a monitor service request” on page 165
- Lock a monitor service; see “Lock a monitor service” on page 181
- Unlock a monitor service; see “Unlock a monitor service” on page 181
- Learn about monitor services; see “Learn about monitor services” on page 182

The following hyperlinks are provided in the SM or MONSERV view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Num Actv</td>
<td>Active Monitors (AT or MONACTV) view</td>
</tr>
<tr>
<td>BLK</td>
<td>Issue SET Service Requests dialog</td>
</tr>
<tr>
<td>JOURNAL</td>
<td>PAS journal</td>
</tr>
</tbody>
</table>

**Display a plot view for a monitor**

Use the S (Select) line command to display a plot view for a monitor.

For more information about plot views, see “Plot views for monitors” on page 175.

**View request options and attributes**

Use the W (Show) line command to display the options and attributes that were specified to request the selected monitor service.

The Show Workload Monitor dialog is displayed. You cannot change any of the displayed information.

**Figure 126: Show Workload Monitor dialog**

<table>
<thead>
<tr>
<th>COMMAND ====&gt;</th>
<th>Show Workload Monitor Request</th>
<th>SCROLL ===&gt;</th>
<th>CSR</th>
<th>MORE: +</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor Attributes:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARM TEST</td>
<td>START 00:01:00 (hh:mm:ss)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERVAL 00:01:30 (hh:mm:ss)</td>
<td>STOP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARNING 1.0000 (Warning value)</td>
<td>WIF 1 (intvls to lst msg)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARNING (Log warnings to)</td>
<td>WIN 1 (Message Intervals)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WARNING 10 (Warnings limit)</td>
<td>RST HOT (HOT,PUR,QIS)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TITLE testNEG</td>
<td>QIS YES (YES/NO)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLOTMAX 0.0000</td>
<td>(Maximum PLOT X-Axis value)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RANGE (1-4 Range Distr. Upper Limits)</td>
<td>(NO,ATSTOP,ATPD,ATINTVL,ATWARN)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOG NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specify Workload Selections:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PGMTYPE (MPP, BMP, MDP, NDP, FPU, TPI, DBT, NOTDBT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAN PROG PSB CLASS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Modify request options and attributes

Use the M (Modify) line command to change the options and attributes for the selected monitor service request.

The Modify Workload Monitor dialog is displayed, as shown in Figure 127 on page 180.

You can change highlighted information. For additional information, see “Making a monitor service request” on page 165.

Figure 127: Modify Workload Monitor dialog

Purge a monitor service request

Use the P (Purge) line command to delete the data collected by the selected monitor service.

The Purge IMS monitor Request dialogs displayed, as shown in the following figure.
To confirm the deletion of the collected data, press Enter.

**Figure 128: Purge IMS monitor Request dialog**

```
<table>
<thead>
<tr>
<th>COMMAND ===&gt;</th>
<th>SCROLL ===&gt; CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>@ELTM - testNEG</td>
<td></td>
</tr>
<tr>
<td>Parameter Identifier</td>
<td>TESTNEG</td>
</tr>
<tr>
<td>Status</td>
<td>ACTV</td>
</tr>
<tr>
<td>Start Time</td>
<td>00:01:00   Days 0</td>
</tr>
<tr>
<td>Stop Time</td>
<td></td>
</tr>
</tbody>
</table>

ENTER to confirm the purge request
END to quit the dialog
HELP to view related help
```

**Stop a monitor service request**

Use the Z (Stop) line command to stop the selected monitor service.

Data collection stops, but the data that was already collected is retained.

**Lock a monitor service**

Use the L (Lock) line command to lock a monitor service.

When a monitor service is locked, no monitor service requests can be made.

**Unlock a monitor service**

Use the U (Unlock) line command to unlock a locked monitor service.

When a monitor service is locked, no monitor service requests can be made. Unlock the monitor service to allow monitor service requests.
Learn about monitor services

Use the H (Help) line command to learn about a monitor service.

A description of the service, its parameters, and the syntax of its warning message are displayed.

A brief description of the monitors is also in “IMS workload monitors” on page 182 and “IMS resource monitors” on page 186.

IMS workload monitors

There are numerous monitor plot views for the IMS workload monitor services.

The view descriptions are organized by IMS area. Each table of views lists each plot view and its corresponding monitor, and describes the performance data provided by the view:

- “DB2 activity monitors” on page 182
- “Fast Path activity monitors” on page 183
- “Global region calls monitors” on page 184
- “Elapsed timing monitors” on page 184
- “Processed transactions monitor” on page 186

**Note**

The @ELTM and @RSTM workload monitors are internal to the MainView VistaPoint product, which uses workload definitions to monitor service level objectives. I@RSTM plots the average response time, and I@ELTM plots the average elapsed time for transactions that occur within IMS targets defined as part of a MainView VistaPoint workload.

DB2 activity monitors

The DB2 activity monitors provide performance data about DB2 calls made through the IMS Attach facility and usage of dependent region CPU time for DB2 requests made by a transaction.
### Table 4: Workload monitors for DB2 activity

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>#CDB2</td>
<td>DB2 data access calls</td>
<td>#CDB2</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the number of SQL calls to DB2 to access data tables for selected workloads during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of SQL calls to DB2 for the total workload or for a single workload type.</td>
<td></td>
</tr>
<tr>
<td>#SDB2</td>
<td>DB2 non-data access calls</td>
<td>#SDB2</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the number of non-data-access SQL calls (DDL, dynamic, and control-type calls) to DB2 for selected workloads during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of non-data-access SQL calls to DB2 for the total workload or for a single workload type.</td>
<td></td>
</tr>
<tr>
<td>@PDB2</td>
<td>DB2 CPU time</td>
<td>@PDB2</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the average CPU time used per transaction to process DB2 requests for selected workloads during the sampling period. Depending on the parameters specified with the monitor, the reported value is the average CPU time used by the total workload or by a single workload type.</td>
<td></td>
</tr>
</tbody>
</table>

### Fast Path activity monitors

The Fast Path activity monitors provide performance data about Fast Path resource usage.

### Table 5: Workload monitors for Fast Path activity

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>#CIC</td>
<td>Fast Path control interval contentions</td>
<td>#CIC</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the number of workload Fast Path database control interval contentions (CIC) during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of CICs for the total workload or for a single workload type.</td>
<td></td>
</tr>
<tr>
<td>#OBAW</td>
<td>Fast Path OBA latch waits</td>
<td>#OBAW</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the number of overflow buffer (OBA) latch waits for selected workloads during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of OBA waits by Fast Path transactions or by a single workload type.</td>
<td></td>
</tr>
</tbody>
</table>
Monitor name | Description | View name
---|---|---
@OBA | Fast Path overflow buffer usage
This monitor reports the average overflow buffer use by Fast Path transactions for selected workloads during the sampling period. Depending on the parameters specified with the monitor, the reported value is the average overflow buffer use for the total workload or for a single workload type. | I@OBA

Global region calls monitors

The global region calls monitors provide performance data about all region calls issued during IMS application program processing, including DL/I calls issued by DBCTL regions.

Table 6: Workload monitors for global region calls

Monitor name | Description | View name
---|---|---
$CBMP | BMP and JBP region calls
This monitor reports the number of calls issued by BMP and JBP regions during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of all calls or the number of all calls of a single type. | I$CBMP

$CDBT | DBCTL region DL/I calls
This monitor reports the number of DL/I calls issued by DBCTL threads during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of all calls or the number of all calls of a single type. | I$CDBT

$CMPP | MPP and JMP region calls
This monitor reports the number of calls issued by MPP, JMP, and IFP regions during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of all calls or the number of all calls of a single type. | I$CMPP

$CTOT | All region calls
This monitor reports the number of calls issued by all region types during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of all calls or the number of all calls of a single type. | I$CTOT

Elapsed timing monitors

The elapsed timing monitors provide performance data about transaction elapsed, input, and response time.
Table 7: Workload monitors for elapsed timing

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
</table>
| @CRSP       | Average IMS Connect response time  
This monitor reports the average elapsed time of IMS Connect workload transactions during the sampling period. Depending on the parameters specified with the monitor, the reported value is the average transaction elapsed time for all IMS Connect workloads.  
IMS Connect response times start when IMS Connect reads the input message and ends when IMS sends the reply back to IMS Connect. It does not include any time spent in IMS Connect after IMS Connect receives the reply from IMS. | I@CRSP   |
| @ELAP       | Average elapsed time  
This monitor reports the average elapsed time of workload MPP, JMP, and IFP transactions during the sampling period. The average elapsed time of DBCTL threads is also measured. Depending on the parameters specified with the monitor, the reported value is the average transaction elapsed time for all workloads or for all workloads of a single type. | I@ELAP   |
| @INPQ       | Average input queue time  
This monitor reports the average MPP, JMP, and IFP transaction input queue time for workloads during the sampling period. Depending on the parameters specified with the monitor, the reported value is the average input queue time for all workloads or for all workloads of a single type. | I@INPQ   |
| @RESP       | Average response time  
This monitor reports the average response time of workload MPP, JMP, and IFP transactions during the sampling period. Depending on the parameters specified with the monitor, the reported value is the average transaction response time for all workloads or for all workloads of a single type. | I@RESP   |
| @TRSP       | Average terminal response time  
This monitor reports the average time between message arrival to IMS and the enqueue of the response to the input terminal. Response time is calculated as the difference between the time the original input message was received by IMS and the commit time of the transaction that inserted the response. Fast Path transactions are not included, and the time between commit and reception of the message at the terminal is not included.  
The reported average response time may be inaccurate if:  
- The response was sent prior to commit time, by an express mode PCB for example  
- PGM-to-PGM switches occurred and more than one application responded to the input terminal | I@TRSP   |
Processed transactions monitor

The #PROC monitor measures how many MPP, JMP, or IFP transactions IMS processed.

Table 8: Workload monitor for processed transactions

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>#PROC</td>
<td>Transactions processed</td>
<td>I#PROC</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the number of workload MPP, JMP, and IFP transactions processed during a sampling period. Depending on the parameters specified with the monitor, the reported value is the number of MPP, JMP, or IFP transactions processed for all workloads or for a single workload type.</td>
<td></td>
</tr>
</tbody>
</table>

IMS resource monitors

There are numerous monitor plot views for the IMS resource monitor services. The view descriptions are organized by IMS area as follows:

- “Message format service (MFS) monitors” on page 186
- “Input queue monitors” on page 187
- “Message queue monitors” on page 188
- “MSC links monitors” on page 189
- “Output queue monitors” on page 189
- “Scheduling monitors” on page 190
- “Dependent regions monitors” on page 192
- “Database activities monitors” on page 194
- “IMS internals monitors” on page 195
- “IMS interaction with the operating system monitors” on page 198
- “IRLM activity monitors” on page 199

Message format service (MFS) monitors

The MFS monitors measure MFS I/O and requests.
Table 9: Resource monitors for MFS I/O and requests

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFSFD</td>
<td>Percent of MFS blocks in pool This monitor reports the percentage of MFS immediate block requests satisfied from pool storage. The percentage is cumulative, based on the total number of immediate block requests minus immediate block reads that occurred in the sampling period.</td>
<td>IMFSFD</td>
</tr>
<tr>
<td>MFSIO</td>
<td>MFS I/O This monitor reports the number of MFS I/O reads during the sampling period. The reported value is the sum of directory reads, prefetch block reads, and immediate block reads.</td>
<td>IMFSIO</td>
</tr>
<tr>
<td>MFSIR</td>
<td>MFS immediate requests This monitor reports the total number of MFS immediate requests during the sampling period.</td>
<td>IMFSIR</td>
</tr>
</tbody>
</table>

**Input queue monitors**

The input queue monitors provide performance data about input queue length, including the number of transactions in the input queue and the number available for scheduling.

Table 10: Resource monitors for the input queue

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>INQBG</td>
<td>Input queue length by BALG This monitor reports the number of queued input transactions by balancing group (BALG). Depending on the parameters specified with the monitor, the reported value is the total input queue length for all BALGs or the input queue length for one BALG or a group of BALGs.</td>
<td>IINQBG</td>
</tr>
<tr>
<td>INQCL</td>
<td>Input queue length by class This monitor reports the number of queued transactions by class during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total input queue length for all classes or the input queue length for one class.</td>
<td>IINQCL</td>
</tr>
<tr>
<td>INQTR</td>
<td>Input queue length by transaction This monitor reports the input queue length by transaction during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total input queue length or the input queue length for one transaction or a group of transactions.</td>
<td>IINQTR</td>
</tr>
</tbody>
</table>
Monitor name | Description | View name
---|---|---
IQSCL | Schedulable input queue by class
This monitor reports the number of queued transactions available for scheduling during the sampling period. A queued transaction available for scheduling is not locked, is not stopped, and does not have a priority zero. Depending on the parameters specified with the monitor, the reported value is the total input queue length of all transactions available for scheduling or the input queue length for one processing class. | IIQSCL

**Message queue monitors**

The message queue monitors provide performance data about the message queue.

Table 11: Resource monitors for the message queue

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
</table>
| LGMSG | Long message queue utilization
This monitor reports the percentage of the long message queue data set in use during the sampling period. The percentage is calculated as the ratio of allocated records to the total number of records in the long message queue data set. | ILGMSG |
| QBLKS | Queue blocks utilization
This monitor reports the percentage of the QBLKS message queue data set in use during the sampling period. The percentage is calculated as the ratio of allocated records to the total number of records in the QBLKS message queue data set. | IQBLKS |
| QIO | Queue I/O
This monitor reports the total number of queue I/Os performed during the sampling period. The number includes both read and write queue I/Os. | IQIO |
| QWAIT | Queuing waits
This monitor reports the total number of queuing waits that occurred during a sampling period. Queuing waits include the following:

- Waits for an available buffer
- Waits for other DECB to read
- Waits for other DECB to write
- Waits for purge
- Waits for buffer ENQ/DEQ | IQWAIT |
Monitor name | Description | View name
--- | --- | ---
SHMSG | Short message queue percent utilization  This monitor reports the percentage of the short message queue data set in use during the sampling period. The percentage is calculated as the ratio of allocated records to the total number of records in the short message queue data set. | ISHMSG
SMQEX | Shared message queue (SMQ) pool expansion  This monitor reports the number of times the shared message queue pool expanded. | ISMQEX

**MSC links monitors**

The MSC links monitors provide performance data about messages received and sent on MSC logical links and the MSC logical link output queue length.

**Table 12: Resource monitors for MSC links**

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLK</td>
<td>Input messages by link  This monitor reports the number of messages received on MSC logical links during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total received for all MSC logical links or for a single link.</td>
<td>IINLK</td>
</tr>
<tr>
<td>OQLK</td>
<td>Output queue by link  This monitor reports the output queue length for MSC logical links during the sampling period. Depending on the parameters specified with the monitor, the reported value is the output queue length for all MSC logical links or for one link. The value is the difference between the enqueue and dequeue counts for remote transactions and MSNAMES using the MSC logical links.</td>
<td>IOQLK</td>
</tr>
<tr>
<td>OUTLK</td>
<td>Output messages by link  This monitor reports the number of messages sent on MSC logical links during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number sent for all MSC logical links or for one link.</td>
<td>IOUTLK</td>
</tr>
</tbody>
</table>

**Output queue monitors**

The output queue monitors provide performance data about the number of output messages queued and dequeued by a resource and the number of messages queued to inactive ETO user structures.
### Table 13: Resource monitors for the output queue

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
</table>
| DEADQ        | Dead letter queue count  
This monitor reports the number of messages queued to inactive ETO user structures. A user structure is considered inactive if it has not been connected to a node for at least as many days as specified in the parameter field. If the parameter field is left blank, the value specified for the IMS dead letter queue time is used. | IDEADQ |
| OQLN         | Output queue length by line  
This monitor reports the output queue length by line during the sampling period. Depending on the parameters specified with the monitor, the reported value is total output queue length or the queue length for one line. | IOQLN |
| OQLT         | Output queue length by LTERM  
This monitor reports the output queue length by LTERM during the sampling period. Depending on the parameters specified with the monitor, the reported value is total output queue length or the length for one LTERM or a group of LTERM. | IOQLT |
| OQND         | Output queue length by node  
This monitor reports the output queue length by node during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total output queue length or the output queue length for one VTAM node or a group of nodes. | IOQND |
| OUTLN        | Messages output by line  
This monitor reports message output by line during the sampling period. Depending on the parameters specified with the monitor, the reported value is total the output or the output by one line. | IOUTLN |
| OUTLT        | Messages output by LTERM  
This monitor reports message output by LTERM during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total output or the output by one LTERM or a group of LTERMs. | IOUTLT |
| OUTND        | Messages output by node  
This monitor reports message output by VTAM node during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total output or the output by one VTAM node or a group of nodes. | IOUTND |

### Scheduling monitors

The scheduling monitors provide performance data about transaction arrivals and transactions processed.
Table 14: Resource monitors for scheduling

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
</table>
| ARVBG        | Transaction arrivals by BALG  
This monitor reports the number of transaction arrivals by balancing group (BALG). Depending on the parameters specified with the monitor, the reported value is the total for all BALGs or the number for one BALG or a group of BALGs. | IARVBG     |
| ARVCL        | Transaction arrivals by class  
This monitor reports the number of transaction arrivals by processing class during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total transaction arrivals or the number for one processing class. | IARVCL     |
| ARVPR        | Transaction arrivals by program  
This monitor reports the number of transaction arrivals by program (PSB) during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total transaction arrivals or the number for one program or a group of programs. | IARVPR     |
| ARVTR        | Transaction arrivals by transaction  
This monitor reports the number of transaction arrivals by transaction name. Depending on the parameters specified with the monitor, the reported value is the total number of transaction arrivals or the number of arrivals for one transaction or a group of transactions. | IARVTR     |
| PRCBG        | Transactions processed by BALG  
This monitor reports the number of transactions processed by balancing group (BALG) during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of transactions processed by all BALGs or the number processed by one BALG or a group of BALGs. | IPRCBG     |
| PRCCCL       | Transactions processed by class  
This monitor reports the number of transactions processed by class during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total processed or the number processed for one class. | IPRCCCL    |
| PRCPR        | Transactions processed by program  
This monitor reports the number of transactions processed by a program during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total transactions processed or the number processed by one program or a group of programs. | IPRCPR     |
| PRCTR        | Transactions processed by transaction  
This monitor reports the number of transactions processed during a sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of transactions processed or the number of times one transaction or a group of transactions was processed. | IPRCTR     |
### Monitor name | Description | View name
---|---|---
SCHFL | Scheduling failures by type
This monitor reports the number of scheduling failures during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of scheduling failures or the total number of failures of a single type. | ISCHFL

### Dependent regions monitors

The dependent region monitors provide performance data about DB2 access by programs executing in the dependent regions.

#### Table 15: Resource monitors for dependent regions

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
</table>
| CHKPT | Number of checkpoints by BMP
This monitor reports the total number of checkpoint calls performed since the BMP region started. | ICHKPT |
| DBGU | DL/I database calls
This service monitors the total number of DL/I database calls by region, and issues a warning if the threshold is exceeded.
The number of calls is calculated as the number of DL/I database calls performed in the specified region since the last scheduling divided by the number of MESSAGE GET UNIQUEs performed. Fast Path calls are not included. | None |
| DBTOT | DB CALLS/SCHED BY RGN
This service monitors the number of database DL/I calls performed since the last scheduling by region, and issues a warning if the threshold is exceeded.
The number of calls is calculated as the number of DL/I database calls performed in the specified region since the last scheduling (measured at the time of the sample) compared to the warning threshold. Fast Path calls are not included. | None |
| D2CON | Region connection to DB2 subsystem
This monitor reports the number of dependent regions connected to DB2 during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of regions connected to DB2 subsystems or the number of regions connected to a specific DB2 subsystem. | ID2CON |
| D2SON | DB2 sign-on by subsystem
This monitor reports the number of dependent regions that issued at least one SQL call and are signed on to DB2 during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of regions signed on to DB2 or the regions signed on to a specific DB2 subsystem. | ID2SON |
<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
</table>
| D2THD       | Region threads to DB2 subsystem  
This monitor reports the number of dependent regions with active threads to DB2 during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of active regions with DB2 threads or the regions with active threads to a specific DB2 subsystem. | ID2THD |
| DLIDB       | DL/I DB call time  
This monitor reports the number of seconds that the database DL/I call has lasted. Depending on the parameters specified with the monitor, the reported value is for all regions, for all regions except BMPs and JBP, or for a specified region only. | IDLIDB |
| DLIDC       | DL/I DC call time  
This monitor reports the number of seconds that the transaction DL/I call has lasted. Depending on the parameters specified with the monitor, the reported value is for all regions, for only GU calls to the I/O PCB, for only GU calls to the I/O PCB for non-WFI and non-PWFI transactions, for all regions except WFI regions, or for a specified region only. | IDLIDC |
| MSGGU       | Message CALLS/MGU by region  
This service monitors DL/I message queue calls by region, and issues a warning if the threshold is exceeded. The number of calls is calculated by the number of DL/I message queue calls performed in the specified region since the last scheduling divided by the number of MESSAGE GET UNIQUEs performed (both as measured and at the time of the sample). Fast Path calls are not included. | None |
| MSGT        | Message CALLS/SCHED by region  
This service monitors DL/I message queue calls by region, and issues a warning if the threshold is exceeded. The number of calls is calculated by the number of DL/I message queue calls performed in the specified region since the last scheduling (as measured at the time of the sample). Fast Path calls are not included. | None |
| MXPST       | Active regions  
This service reports the number of active regions. | None |
| WAIT        | Region in a long PI WAIT  
This service monitors regions for excessive PI wait times. A warning is written when any region is detected to be in a long PI wait (exceeding the threshold value, defined in seconds). This service can show only one region exception at a time. When the warning condition in one region is cleared, the service continues to check other regions until another exception condition is found and displayed. | None |
## Database activities monitors

The database monitors provide performance data about DL/I buffer pool activity.

### Table 16: Resource monitors for database activities

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
</table>
| DBHIT        | Database hit ratio for OSAM buffer pool  
This monitor reports the hit ratio by subpool for the OSAM buffer pool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the hit ratio for the entire OSAM buffer pool or for one subpool. | IDBHIT |
| DBIO         | Database I/O count by subpool  
This monitor reports the number of database I/O by subpool for the OSAM pool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the database I/O for the total OSAM pool or for one subpool. | IDBIO |
| DBSTL        | Database buffer steals by subpool  
This monitor reports database buffer steal writes by subpool for the OSAM pool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the database buffer steal writes for the total OSAM pool or for one subpool. | IDBSTL |
| HPACC        | Hiperspace access by subpool  
This monitor reports hiperspace access by subpool for all VSAM buffer spools during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of successful hiperspace reads and writes or the number of successful hiperspace reads and writes for one subpool. | IHPACC |
| HPHIT        | Hiperspace hit ratio by subpool  
This monitor reports the VSAM hiperspace hit ratio by subpool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the hit ratio for all VSAM buffer spools that have associated hiperspace buffers or the hit ratio for one subpool. | IHPHIT |
| HPSTL        | Hiperspace buffer steal by subpool  
This monitor reports VSAM hiperspace buffer steals by subpool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of unsuccessful reads from all VSAM hiperspace buffer pools or from one subpool. | IHPSTL |
| SBUSE        | Sequential buffer storage by region  
This monitor reports sequential buffering storage by region during the sampling period. Depending on the parameters specified with the monitor, the reported value is kilobytes of virtual storage used by all regions, a group of regions, or a single region. | ISBUSE |
<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDBIO</td>
<td>VSAM database I/O by subpool</td>
<td>IVDBIO</td>
</tr>
<tr>
<td></td>
<td>This monitor reports VSAM database I/O by subpool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of I/Os for the total VSAM pool or for one subpool.</td>
<td></td>
</tr>
<tr>
<td>VDBWR</td>
<td>VSAM writes by subpool</td>
<td>IVDBWR</td>
</tr>
<tr>
<td></td>
<td>This monitor reports VSAM writes by subpool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of VSAM-initiated writes for the total VSAM pool or for one subpool.</td>
<td></td>
</tr>
<tr>
<td>VHIT</td>
<td>VSAM hit ratio by subpool</td>
<td>IVHIT</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the VSAM hit ratio by subpool during the sampling period. Depending on the parameters specified with the monitor, the reported value is the hit ratio for the total VSAM pool or for one subpool.</td>
<td></td>
</tr>
</tbody>
</table>

**IMS internals monitors**

The IMS internals monitors provide performance data about IMS internal activity for program isolation, pools, logging, latching, and pool allocation.

**Table 17: Resource monitors for IMS internals**

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBWP</td>
<td>Database work area pool utilization</td>
<td>IDBWP</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the database work area pool utilization during the sampling period.</td>
<td></td>
</tr>
<tr>
<td>DMBP</td>
<td>DMB pool utilization</td>
<td>IDMBP</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the DMB pool utilization during the sampling period.</td>
<td></td>
</tr>
<tr>
<td>DSAP</td>
<td>Dynamic SAP utilization</td>
<td>IDSAP</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the dynamic save area pool utilization during the sampling period.</td>
<td></td>
</tr>
<tr>
<td>EPCB</td>
<td>EPCB pool utilization</td>
<td>IEPCH</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the extended PCB (EPCB) pool utilization during the sampling period. If Fast Path is not installed in IMS, the IEPCH plot is always zero.</td>
<td></td>
</tr>
<tr>
<td>LAWT</td>
<td>Average latch wait time</td>
<td>ILAWT</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the average latch wait time in microseconds within the sampling period or since the last IMS checkpoint if a checkpoint occurs within the period. Depending on the parameters specified with the monitor, the reported value is the average wait time for all latch types or for a specific latch type.</td>
<td></td>
</tr>
<tr>
<td>Monitor name</td>
<td>Description</td>
<td>View name</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
<td>-----------</td>
</tr>
</tbody>
</table>
| LMAWT       | Latch wait time  
This service monitors the maximum latch wait time (in microseconds) and issues a warning if it exceeds the defined threshold. If more than one latch type exceeds the threshold, only the one with the largest average wait time is measured. | None |
| LOGSW       | Log switch last 10 intervals  
This service monitors the number of OLDS switches that occur and issues a warning if the number of switches exceeds the defined threshold. | ILOGSW |
| MFSP        | MFS pool utilization  
This monitor reports the percentage of the MFS format pool utilization during the sampling period. The percentage of the MFS format pool utilization is calculated as the ratio of allocated bytes to the total number of bytes that can be assigned to the pool. | IMFSP |
| OBUFW       | OLDS buffer waits  
This monitor reports the number of times that the IMS logical logger had to wait for a buffer to be written to the OLDS during the sampling period. | IOBUFW |
| OCHKW       | OLDS check writes  
This monitor reports the number of check write requests to the IMS logical logger during the sampling period. | IOCHKW |
| OTMEM       | OTMA tmember status  
This monitor reports the status of OTMA tmembers. | None |
| OTPIP       | OTMA stopped tpipes count  
This monitor reports the number of tpipes that were stopped during the sampling period. | IOTPIP |
| OTSRV       | OTMA server status  
This service reports the status of the OTMA server. | None |
| PIENQ       | Program isolation enqueues by region  
This monitor reports the number of outstanding program isolation (PI) enqueues held by IMS regions during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of PI enqueues held by all IMS dependent regions, by one region, or by a group of regions. | IPIENQ |
| PIMAX       | Maximum PI enqueues  
This service monitors PI enqueues. The region with the most outstanding PI enqueues exceeding the threshold is reported. If more than one region exceeds the threshold, only the one with the most enqueues is returned. | None |
<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIPL</td>
<td>Program isolation pool utilization</td>
<td>IPIPL</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the program isolation (PI) pool utilization during the sampling period. PI pool percentage usage is calculated as the ratio of allocated bytes to the total number of bytes that can be assigned to the pool.</td>
<td></td>
</tr>
<tr>
<td>POOLA</td>
<td>Pool allocated storage</td>
<td>IPOOLA</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the amount of allocated pool storage in bytes during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of allocated bytes of CSA storage, ECSA storage, or non-CBT pool storage.</td>
<td></td>
</tr>
<tr>
<td>POOLN</td>
<td>Net expansion count</td>
<td>IPOOLN</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the difference in bytes between the total expansion and total compression of blocks allocated to non-CBT fixed storage pools.</td>
<td></td>
</tr>
<tr>
<td>POOLT</td>
<td>Total expansion/compression count</td>
<td>IPOOLT</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the number of times that non-CBT storage pool blocks expanded and compressed during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total block expansions and compressions for all pools or the number for a specific non-CBT fixed storage pool.</td>
<td></td>
</tr>
<tr>
<td>PSBP</td>
<td>PSB pool utilization</td>
<td>IPSBP</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the PSB pool utilization during the sampling period. If the IMS option is LSO=S, DLISAS PSB pool usage is monitored. If the LSO option is not S, total PSB pool usage is monitored.</td>
<td></td>
</tr>
<tr>
<td>PSBW</td>
<td>PSB work area pool utilization</td>
<td>IPSBW</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the PSB work area pool utilization during the sampling period.</td>
<td></td>
</tr>
<tr>
<td>RECA</td>
<td>RECA pool utilization</td>
<td>IRECA</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the receive any (RECA) pool utilization during the sampling period.</td>
<td></td>
</tr>
<tr>
<td>WADIO</td>
<td>WADS I/O</td>
<td>IWADIO</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the number of EXCPs to a write-ahead data set (WADS) during the sampling period. If dual WADS logging is in effect, the actual number of EXCPs is twice the reported number.</td>
<td></td>
</tr>
<tr>
<td>WADRS</td>
<td>WADS I/O response</td>
<td>IWADRS</td>
</tr>
<tr>
<td></td>
<td>This service monitors the response time of WADS I/O.</td>
<td></td>
</tr>
<tr>
<td>WKAP</td>
<td>General work area pool utilization</td>
<td>IWKAP</td>
</tr>
<tr>
<td></td>
<td>This monitor reports the percentage of the general work area pool utilization during the sampling period.</td>
<td></td>
</tr>
</tbody>
</table>
# IMS interaction with the operating system monitors

These monitors provide performance data about resources used by IMS interaction with the operating system.

## Table 18: Resource monitors for the IMS interaction with the operating system

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
</tr>
</thead>
</table>
| CSAFR       | CSA fragmentation  
This monitor reports CSA fragmentation and issues a warning when a block of storage of threshold bytes could not be allocated in CSA subpool 241.  
The threshold should be set equal to the increment specified for PI pool expansion. |
| CSAUT       | CSA utilization  
This monitor reports the percentage of CSA storage utilization during the sampling period. |
| DLIO        | DL/I EXCP count by ddname  
This monitor reports the number of successful EXCPs for DL/I data sets allocated to the DLISAS region during the sampling period by ddname. Depending on the parameters specified with the monitor, the reported value is the total EXCPs for all data sets allocated to the IMS DLISAS region, a group of data sets, or a single data set. |
| DPAGE       | Demand paging by region  
This monitor reports the number of demand page-ins by region during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total demand page-ins for the system or demand page-ins for one IMS region. |
| ECSAU       | Extended CSA utilization  
This monitor reports the percentage of extended CSA storage utilization during the sampling period. |
| PAGE        | Paging by region  
This monitor reports the number of private area, VIO, and swap page-ins and page-outs during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total paging for the system or paging for one IMS region. |
| SYSIO       | EXCP count by ddname  
This monitor reports the number of successful EXCPs for data sets allocated to the IMS control region by ddname. Depending on the parameters specified with the monitor, the reported value is the total EXCPs for all data sets allocated to the IMS control region or the EXCPs for one data set or a group of data sets. |
IRLM activity monitors

The IRLM monitors provide performance data about IRLM activity.

Table 19: Resource monitors for IRLM activity

<table>
<thead>
<tr>
<th>Monitor name</th>
<th>Description</th>
<th>View name</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDLCK</td>
<td>IRLM deadlocks&lt;br&gt;This monitor reports the number of IRLM deadlocks that occurred during the sampling period.</td>
<td>ILDLCK</td>
</tr>
<tr>
<td>LHELD</td>
<td>IRLM locks held&lt;br&gt;This monitor reports the number of IRLM locks held by an IMS dependent region during the sampling period. Depending on the parameters specified with the monitor, the reported value is the total number of IRLM locks held by the target IMS or by a specific region.</td>
<td>ILHELD</td>
</tr>
<tr>
<td>LKMAX</td>
<td>Maximum IRLM locks&lt;br&gt;This monitor reports the name of the region with the largest number of outstanding IRLM locks that exceed the defined threshold. If more than one region is over the threshold, the name of the one with the most locks is returned.</td>
<td>None</td>
</tr>
<tr>
<td>LKREQ</td>
<td>IRLM lock requests&lt;br&gt;This monitor reports the number of IRLM lock requests that occurred during the sampling period. Depending on the parameters specified with the monitor, the reported value is the number of lock requests for the entire IRLM system or the subset from the target IMS subsystem.</td>
<td>ILKREQ</td>
</tr>
<tr>
<td>LSUSP</td>
<td>IRLM suspensions&lt;br&gt;This monitor reports the number of IRLM suspensions that occurred during the sampling period.</td>
<td>ILSUSP</td>
</tr>
<tr>
<td>LWAIT</td>
<td>Region in IRLM suspend state&lt;br&gt;This service monitors regions in IRLM suspend state. A warning is issued when a monitored region is in an IRLM suspend state longer than the defined threshold value specified in seconds.</td>
<td>None</td>
</tr>
<tr>
<td>LNUM</td>
<td>Regions in IRLM suspension&lt;br&gt;This monitor reports the number of suspended IRLM requests that occurred during the sampling period. Depending on the parameters specified with the monitor, the reported value is all suspended requests from the current target IMS, all suspended requests from all targets, or all requests suspended longer than a specified number of seconds from all targets or the current target.</td>
<td>ILWNUM</td>
</tr>
</tbody>
</table>
Monitor IMS pools, queues, and the operating system

Use the resource views to show the status, activity, and performance of IMS resources when IMS interacts with the operating system and the resources under the control of the operating system.

Access to the resource views

To access the resource views, enter the view name on the COMMAND line or enter VIEWS on the COMMAND line and select a view from the list.

Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Available resource views

The following resource views are provided:

- “MFS Statistics view (IMFSST)” on page 202
- “MFS Pool Utilization view (IMFSUT)” on page 203
- “Queue Statistics view (IQUEST)” on page 204
- “Message Queue Datasets view (IQUESTDS)” on page 204
- “IMS Scheduling Activity view (ISCHED)” on page 205
- “DMB Pool Utilization view (IDMBUT)” on page 205
MFS Statistics view (IMFSST)

The MFS Statistics view (IMFSST) provides current Message Format Service (MFS) configuration and MFS activity statistics.

The IMFSST view shows total MFS pool space and the dynamic MFS pool space, information about the first extent of the MFS data set, the existing allocation of fetch request elements (FREs), the MFS request statistics accumulated since IMS restart,
and the physical I/O required for request processing. The counters are incremented by MFS when measured events occur.

Figure 129: MFS Statistics view (IMFSST)

Figure 130: MFS Pool Utilization view (IMFSUT)

No hyperlinks are available on the view.

MFS Pool Utilization view (IMFSUT)

The MFS Pool Utilization view (IMFSUT) provides current status of the MFS pool.

The status includes the number of resident blocks, the remaining free space, and the fragmentation. When space is required in the pool, IMS frees the oldest elements in the pool. It may take several applications of this least-recently-used algorithm to free the required space.

Figure 130: MFS Pool Utilization view (IMFSUT)

No hyperlinks are available on the view.
Queue Statistics view (IQUEST)

The Queue Statistics view (IQUEST) displays the queue pool definition and its statistics maintained by the IMS Queue Manager routines since the last restart.

The queue statistics are also available for the shared queue environment. The request rate is per second.

**Figure 131: Queue Statistics view (IQUEST)**

<table>
<thead>
<tr>
<th>IMS ID</th>
<th>MVS ID</th>
<th>IMS Jobname</th>
<th>Queue Status</th>
<th>Local</th>
<th>Shared Q Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>I10X</td>
<td>SJSC</td>
<td>I10XIMS</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Queue Attributes**

- Buffer Size: 8192
- QBUF Buffers: 5
- QBUF Pool Size: 40960
- Short DSNs: 2
- Long DSNs: 2
- QBUF Pool Size: 40960
- Short Rec Used: 4
- Long Rec Used: 1
- QBLKS DSN: 1
- Short Rec Avail: 7996
- Long Rec Avail: 799
- QBLKS Rec Avail: 1309
- Short % Util: 0.05
- Long % Util: 0.12
- QBLKS % Util: 0.24

**QMGR Requests**

- Total Requests: 181
- Enqueues: 5
- Repositions: 0
- Dequeues: 80
- Releases: 3
- Locates: 20
- Loc & Alter: 109
- Purge Writes: 5
- Translates: 0
- Purges: 1
- Translate Rate: 0.00
- Purge Rate: 0.00
- Reads: 68
- Writes: 66
- Temp I/O Errors: 0

No hyperlinks are available on the view.

Message Queue Datasets view (IQUESTDS)

The Message Queue Datasets view (IQUESTDS) shows the attributes of the queue data sets, queue block, short data sets, and long data sets. The short and long data sets can go up to 9 each.

**Figure 132: Message Queue Datasets view (IQUESTDS)**

<table>
<thead>
<tr>
<th>DDName</th>
<th>DS Blksz Lrecl Volume Use Res Shr Device Devn Dataset Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGMSG</td>
<td>8192 8176 ADR173 PRI PRM SHR 3390 A780 IMS.V101X.LGMSG</td>
</tr>
<tr>
<td>LGMSG2</td>
<td>8192 8176 ADR019 PRI PRM SHR 3390 A712 IMS.V101X.LGMSG2</td>
</tr>
<tr>
<td>QBLKS</td>
<td>8192 56 ADR132 PRI PRM SHR 3390 A787 IMS.V101X.QBLKS</td>
</tr>
<tr>
<td>SHMSG</td>
<td>8192 840 ADR089 PRI PRM SHR 3390 A758 IMS.V101X.SHMSG</td>
</tr>
<tr>
<td>SHMSG2</td>
<td>8192 840 ADR218 PRI PRM SHR 3390 AD11 IMS.V101X.SHMSG2</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
IMS Scheduling Activity view (ISCHED)

The IMS Scheduling Activity view (ISCHED) displays total scheduling activity and regions waiting for scheduling.

This view reports any regions that are currently waiting for scheduling, the reason for the wait, the region number, the region type, and the assigned class. If a wait has a valid cutoff priority, program name, or transaction code, that information is also displayed.

**Figure 133: IMS Scheduling Activity view (ISCHED)**

<table>
<thead>
<tr>
<th>Total SMBs Examined....</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Program Conflicts</td>
<td>0</td>
</tr>
<tr>
<td>Total Intent Failures..</td>
<td>0</td>
</tr>
<tr>
<td>Total Other Reasons....</td>
<td>0</td>
</tr>
<tr>
<td>Regions Waiting to Schedule</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Type</td>
</tr>
<tr>
<td>----</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>MPP</td>
</tr>
<tr>
<td>2</td>
<td>MPP</td>
</tr>
<tr>
<td>3</td>
<td>MDP</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

DMB Pool Utilization view (IDMBUT)

The DMB Pool Utilization view (IDMBUT) shows the current status of the DMB pool, including the number of resident blocks, the remaining free space, and the fragmentation.

**Figure 134: DMB Pool Utilization view (IDMBUT)**

<table>
<thead>
<tr>
<th>CURRENT BLOCK SPACE</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT FREE SPACE</td>
<td>98304</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
IMS Pools Summary (CBT) view (IPOOLC)

The IMS Pools Summary (CBT) view (IPOOLC) provides summary and detail information for all the CBT pools.

You can hyperlink to IPOOLC from the Pool field on the IMS Dashboard Overview view (IMSDSHOR).

Figure 135: IMS Pools Summary (CBT) view (IPOOLC)

<table>
<thead>
<tr>
<th>Id</th>
<th>Rgn</th>
<th>Loc</th>
<th>Fx</th>
<th>SP</th>
<th>Size</th>
<th>Hwm</th>
<th>Blks</th>
<th>Blkth</th>
<th>Getm</th>
<th>Freem</th>
<th>Comments</th>
<th>ImsID</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAB</td>
<td>CTL</td>
<td>EPRI</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>FP DEDB AREA</td>
<td>I10X</td>
</tr>
<tr>
<td>ADSC</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>228</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>FP DBRC</td>
<td>I10X</td>
</tr>
<tr>
<td>AESL</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>231</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>AHDR</td>
<td>CTL</td>
<td>EPRI</td>
<td>N</td>
<td>251</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>APST</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>231</td>
<td>212992</td>
<td>52</td>
<td>1</td>
<td>53</td>
<td>1</td>
<td>0</td>
<td>ALTERED DB-BFR</td>
<td>I10X</td>
</tr>
<tr>
<td>AWE</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>231</td>
<td>12288</td>
<td>12288</td>
<td>168</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>BCPT</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>231</td>
<td>4096</td>
<td>4096</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>BQEL</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>231</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>BQOE</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>231</td>
<td>98304</td>
<td>98304</td>
<td>60</td>
<td>1</td>
<td>12</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>CBLE</td>
<td>CTL</td>
<td>EPRI</td>
<td>N</td>
<td>251</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>CCE</td>
<td>CTL</td>
<td>EPRI</td>
<td>N</td>
<td>231</td>
<td>12288</td>
<td>12288</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td>I10X</td>
</tr>
<tr>
<td>CLEE</td>
<td>CTL</td>
<td>ECSA</td>
<td>N</td>
<td>231</td>
<td>126976</td>
<td>131072</td>
<td>124</td>
<td>1</td>
<td>32</td>
<td>1</td>
<td></td>
<td>I10X</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

IMS Pools Summary (Non-CBT) view (IPOOLS)

The IMS Pools Summary (Non-CBT) view (IPOOLS) provides summary information for all variable and fixed non-CBT pools.

You can hyperlink to IPOOLS from the Pool field on the IMS Dashboard Overview view (IMSDSHOR).
For more information, view the Quick Course MainView for IMS - Dashboard. You must have a BMC Support ID to view the Quick Course.

Figure 136: IMS Pools Summary (Non-CBT) view (IPOOLS)

The IMS Fixed Pool Detail (Non-CBT) view (IPOOLDF) provides detailed information for all the fixed non-CBT pools. The IMS Fixed Pool Detail (Non-CBT) view (IPOOLDF) (IPOOLDF) view provides detailed information for all the fixed non-CBT pools.

Figure 137: IMS Fixed Pool Detail (Non-CBT) view (IPOOLDF)

No hyperlinks are available on the view.
IMS Variable Pool Detail (Non-CBT) view (IPOOLDV)

The IMS Variable Pool Detail (Non-CBT) view (IPOOLDV) provides detailed information for all the variable non-CBT pools.

You can hyperlink to IPOOLDV from the Pool field on the IMS Dashboard Overview view (IMSDSHOR).

Figure 138: IMS Variable Pool Detail (Non-CBT) view (IPOOLDV)

<table>
<thead>
<tr>
<th>24APR2009 15:42:12</th>
<th>MainView WINDOW INTERFACE (V6.0.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND</td>
<td>SCROLL ===&gt; CSR</td>
</tr>
<tr>
<td>CURR WIN ===&gt; 1</td>
<td>ALT WIN ===&gt;</td>
</tr>
<tr>
<td>W1 =IPOOLDV========I10X==========*==24APR2009==15:42:08====MVIMS====D====1</td>
<td></td>
</tr>
<tr>
<td>IMS Variable Pool Detail (Non-CBT)</td>
<td></td>
</tr>
<tr>
<td>Name..... DBWP/DMBW</td>
<td>Type..... VAR</td>
</tr>
<tr>
<td>Region... DLS Subpool..</td>
<td>0 Free..... 49152</td>
</tr>
<tr>
<td>Location. EPRV Hi-Mark..</td>
<td>0 %Hi-Mark.... 0</td>
</tr>
<tr>
<td>Free and Allocated Blocks</td>
<td></td>
</tr>
<tr>
<td>Free..... 1 Smallest. 49152</td>
<td>Average. 49152</td>
</tr>
<tr>
<td>Alloc.... 0 Smallest. 0 Average.. 0</td>
<td>Largest..... 0</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

PSB Pool Utilization view (IPSBUT)

The PSB Pool Utilization view (IPSBUT) reports the percentage of the PSB pool utilization during the sampling interval.

If the IMS option is LSO=S, DLISAS PSB pool usage is monitored. If the LSO option is not S, total PSB pool usage is monitored.

Figure 139: PSB Pool Utilization view (IPSBUT)

<table>
<thead>
<tr>
<th>24APR2009 15:47:14</th>
<th>MainView WINDOW INTERFACE (V6.0.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND</td>
<td>SCROLL ===&gt; CSR</td>
</tr>
<tr>
<td>CURR WIN ===&gt; 1</td>
<td>ALT WIN ===&gt;</td>
</tr>
<tr>
<td>W1 =IPSBUT========I10X==========*==24APR2009==15:47:14====MVIMS====D====2</td>
<td></td>
</tr>
<tr>
<td>PSB POOL UTILIZATION</td>
<td></td>
</tr>
<tr>
<td>CURRENT BLOCK SPACE</td>
<td>1 40960 40960 40960 40960</td>
</tr>
<tr>
<td>CURRENT FREE SPACE</td>
<td>1 40960 40960 40960 40960</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Dispatcher Statistics view (IDSPST)

The Dispatcher Statistics view (IDSPST) summarizes z/OS and IMS dispatching. It shows the status of the IMS regions as seen by z/OS and provides statistics about internal z/OS multitasking.

Figure 140: Dispatcher Statistics view (IDSPST)

Real Storage Statistics view (IRS)

The Real Storage Statistics view (IRS) displays information about real storage.

Figure 141: Real Storage Statistics view (IRS)
Peek view (PK)

The Peek view (PK) displays the real-time contents of storage for addresses, control blocks, tables, and modules.

On the PK view:

- Enter information in the Block/Table name, System, offset, Job/STC, Hex ASID, and Hex Address fields to specify the storage you want to display.
- Use the F7 and F8 keys to scroll forward and back in the display.
- Use the Enter key to refresh the displayed data.
- Use line commands, special characters, and hyperlinks to navigate the storage display.
- Use the FC and FX primary commands to find information in the display.

For more information about how to use the PK view, see the online Help.

Figure 142: Peek view (PK)

No hyperlinks are available on the view.

Fast Path Buffer Statistics view (IFPBST)

The Fast Path Buffer Statistics view displays information about the Fast Path buffer pool. It shows the buffer pool size, the options in effect, and the users of pool.
Fast Path 64-Bit Buffer Statistics view (IFP64ST)

The Fast Path 64-Bit Buffer Statistics (IFP64ST) view displays information about the Fast Path 64-bit buffer pool. It shows the buffer pool size, location, and type.

Figure 144: Fast Path 64-Bit Buffer Statistics view (IFP64ST)

No hyperlinks are available on the view.
The Fast Path 64-Bit Subpool Detail (IFP64DTL) view displays detailed information about a specific Fast Path 64-bit buffer subpool.

**Figure 145: Fast Path 64-Bit Subpool Detail view (IFP64DTL)**

```
16SEP2011  11:00:35 ------ MainView WINDOW INTERFACE (V6.0.00) -------------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ==> >W1 =IFP64DTL=========(ALL======I12YIMS=)16SEP2011==11:00:35====MVIMS====D====1
+                        Fast Path 64-Bit Subpool Detail
--------------------------------------------------------------------------------
Subpool Name............    DBFC0001  64Bit for Extents.........       0
Extent ID...............          15  Total 64Bit Usage.........   16384
Number Extents..........           0  DMHR Storage Extents......       0
Buffer Size.............         512  DMHR Storage Subpool......   14848
Storage Size............       16384 +----  ECSA Storage -----+  
DMHR Size...............       14848  CIs in Base.............          32  Control Blocks............     592
Buffers Available.......          32  Extents...................       0
Buffers Used............           0  Buffers Storage Extents....       0
%Used Buffers...........         0.0  Buffers Unknown.........           0
Buffers Unknown.........           0  Total ECSA Used...........   15440
Total Buffers...........          32  +----- EPVT Storage -----+  
Subpool Usage...........           0  Extent Storage Used....       0
Extent Storage Used.....           0  Control Blocks.............     156
Extents Available......           0  Extents...................       0
Storage Used for Buffers 0 Extent Control Blocks.....       0
Buffers Being Quiesced..           0  Buffer Storage Extents....       0
Location................         n/a  Total EPVT Used...........     156

No hyperlinks are available on the view.
Analyze IMS system status

The IMS system status views provide real-time, detailed information about an individual IMS subsystem, information that is vital to the work of operators, systems programmers, and IMS performance analysts.

IMS system status analysis overview

The IMS system status views provide information about an IMS subsystem in many different views. By using the views, you can rely on one group of views to access the most important information about an IMS subsystem in an overview format.

Most of the system status views include hyperlinks that take you to more detailed information about a selected field.

For individual IMS subsystems, the system status views provide:

- System status information in a convenient "dashboard" view
- Resource availability information for vital resources in a single view
- Region status information in a single view
- A list of the parameters currently in effect for an IMS subsystem
- A list of all warning messages for an IMS subsystem
- Information about the status of subsystem connections

The following IMS system status views are provided:

- “IMS Dashboard Overview view (IMSDSHOR)” on page 215
- “IMS Dashboard view (IMSDASHR)” on page 217 and IMSDASSR (not shown)
- “IMS Warning Messages view (IMSWARNR)” on page 221
Tip
To access online Help for an IPSM view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Access the system status views

You can access a filtered version of most of the system status views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS Operations Menu (EZIOPSR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering IMSSTAT on the COMMAND line and then selecting a view from the list of system status views.

For more specific information about hyperlinks to the system status views, see the sections that describe the views.
The IMS Dashboard Overview view (IMSDSHOR) is a real-time detail view that provides vital status and availability information about multiple IMS subsystems.

You can use the view to analyze system status for all your IMS subsystems. You can hyperlink from the fields in the view to access other views that provide related information in greater detail.

You can hyperlink to the IMSDSHOR view by selecting the Dashboard option from:

- IMS SSI Easy Menu (EZISSI)
- IMS Operations Menu (EZIOPSR), if there are multiple members in the context

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS ID</td>
<td>IMS Dashboard Menu (IMSMDASH) for an IMS subsystem or DBCTL Dashboard Menu (DBCMDASH) for a DBCTL subsystem. IMSMDASH and DBCMDASH provide quick access to system status information for the selected subsystem.</td>
</tr>
<tr>
<td>Status</td>
<td>IMS Dashboard view (IMSDASHR) for an IMS subsystem or DBCTL Dashboard view (DBCDSHHR) for a DBCTL subsystem. IMSDASHR and DBCDSHHR provide detailed status and availability information about the selected subsystem.</td>
</tr>
<tr>
<td>Warn Msgs</td>
<td>IMS Warning Messages view (IMSWARNR), if there are warning messages, where you can view the ID and text of the warning messages for the selected subsystem.</td>
</tr>
<tr>
<td>Unavl Resrc</td>
<td>IMS Unavailable Resources view (IMSUNRSR) for an IMS subsystem or DBCTL Unavailable Resources view (DBCUNRSR) for a DBCTL subsystem. IMSUNRSR and DBCUNRSR show the availability status of resources for the selected subsystem.</td>
</tr>
<tr>
<td>Hyperlink from</td>
<td>To access</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
</tr>
<tr>
<td>.Msgs Qued</td>
<td>Transaction Overview view (ITRSUMR), which shows the transactions for the selected IMS subsystem</td>
</tr>
<tr>
<td>Locks</td>
<td>If you are using:</td>
</tr>
<tr>
<td></td>
<td>■ Program isolation</td>
</tr>
<tr>
<td></td>
<td>PI Region Lock Wait List view (IPIRGWT), which provides a list of all regions waiting for database resource locks and shows the ultimate holder of each resource in contention.</td>
</tr>
<tr>
<td></td>
<td>■ IRLM</td>
</tr>
<tr>
<td></td>
<td>IRLM Region Lock Wait List view (ILKRGWT), which provides a list of all regions that are waiting for database resource locks.</td>
</tr>
<tr>
<td>Latch Waits</td>
<td>Latch Summary view (ILATCH), which shows detailed contention information for nongeneric latches and summary statistics for generic latches</td>
</tr>
<tr>
<td>Regns</td>
<td>IMS Region Status view (IMSRGNSR), which provides information about the selected subsystem's regions and threads</td>
</tr>
<tr>
<td>Stop Clas</td>
<td>Transaction Overview view (ITRSUMR), if there is at least one stopped class and the class has transactions assigned to it</td>
</tr>
<tr>
<td></td>
<td>ITRSUMR shows the transactions for the selected IMS subsystem.</td>
</tr>
<tr>
<td>IMS Logs</td>
<td>IMS Log Status view (ILOGST), which shows the IMS logging status and its statistics maintained by the IMS logical and physical logger since the last restart.</td>
</tr>
</tbody>
</table>
The IMS Dashboard view (IMSDASHR) is a real-time detail view that provides vital status and availability information about a specific IMS subsystem, including information about the subsystem’s IMSplex connectivity.

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pool</td>
<td>One of the following views:</td>
</tr>
</tbody>
</table>
|               | ■ Fast Path Buffer Statistics view (IFPBST)  
If DMBW pool utilization exceeds the specified threshold, DBBF is displayed in the field. |
|               | ■ Pool Summary service (POOLS)  
If no pool utilization threshold is exceeded, Okay is displayed in the field. |
|               | ■ DMB Work Pool Summary view (IPOOLDV), with the DBWP pool selected  
If DMBW pool utilization exceeds the specified threshold, DMBW is displayed in the field. |
|               | ■ PSB Work Pool Detail view (IPSBWDTL), with the PSBW pool selected  
If PSBW pool utilization exceeds the specified threshold, PSBW is displayed in the field. |
|               | ■ PI Statistics view (IPISTAT)  
If PI pool utilization exceeds the specified threshold, PI is displayed in the field. |
|               | ■ Pool Summary view (IPOOLC), with the RECA pool selected  
If RECA pool utilization exceeds the specified threshold, RECA is displayed in the field. |
| CPU Util      | JCPUR view of the MainView for z/OS product, if the product is installed |
| Sub Sys       | IMS Subsystem Connections view (IMSCONNR), which shows the status of all subsystems that connect to the selected IMS subsystem, including all DBCTL connections |
| OTMA          | OTMA Client and Server Summary view (IOTMASUM), which provides information about OTMA servers and clients |
| IMSplex       | IMSplex Member Status view (IPXSUMR), which shows the structure and status of IMSplex group members |
You can use the IMS Dashboard view to analyze system status, and you can hyperlink from many of the fields to access a view or display that provides related information in greater detail.

You can hyperlink to the IMSDASHR view by selecting the Dashboard option from the following menus:

- IMS Fast Menu (EZIFAST)
- IMS Easy Menu (EZIMS)
- IMS System Menu (EZIMSS)
- IMS Operations Menu (EZIOPSR), if there is only one member in the context
- IMS Information Menu (IMSMINFO)

**Figure 147: IMS Dashboard view (IMSDASHR)**

<table>
<thead>
<tr>
<th>Command</th>
<th>Scroll</th>
<th>W1 = IMSDASHR</th>
<th>I12YIMS=**...20AUG2011=12:36:42==MVIMS==D=1=1</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURR WIN</td>
<td>ALT WIN</td>
<td>IMS ID....</td>
<td>I12Y Version..</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AvAIL Res</td>
<td>LINEStop Logging..</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unavl Res</td>
<td>Logging.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tot Trans</td>
<td></td>
<td>Avg Resp.</td>
<td>0.00000</td>
</tr>
<tr>
<td>Arvl Rate</td>
<td></td>
<td>Buf Steal.</td>
<td>0.00</td>
</tr>
<tr>
<td>Avg Resp.</td>
<td></td>
<td>Wrst Hit.</td>
<td>0</td>
</tr>
<tr>
<td>Avl OLDS.</td>
<td></td>
<td>OLDS Mod.</td>
<td>Single</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pct PSBW.</td>
<td>0</td>
</tr>
<tr>
<td>IMS CTL..</td>
<td></td>
<td>IMSCTL..</td>
<td>2977</td>
</tr>
<tr>
<td>IRLM.....</td>
<td></td>
<td>IRLM.....</td>
<td>7585</td>
</tr>
<tr>
<td>IMS CTL..</td>
<td></td>
<td>IMSCTL..</td>
<td>0</td>
</tr>
<tr>
<td>IRLM.....</td>
<td></td>
<td>IRLM.....</td>
<td>0</td>
</tr>
<tr>
<td>Pgm Confl</td>
<td></td>
<td>Pgm Confl</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note**

You can access an alternate version of the IMS Dashboard view, IMSDASSR, if you want to use a view with fewer rows. In IMSDASSR, you can scroll right to see additional fields in the view.

The following hyperlinks are provided on the IMSDASHR or IMSDASSR view:
<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS ID</td>
<td>IMS Dashboard Menu (IMSMDASH), where you can get quick access to system status information for an IMS subsystem</td>
</tr>
<tr>
<td>Warnings</td>
<td>IMS Warning Messages view (IMSWARNR), if there are warning messages, where you can view the ID and text of the warning messages for the IMS subsystem</td>
</tr>
<tr>
<td>Unavl Res</td>
<td>IMS Unavailable Resources view (IMSUNRSR)</td>
</tr>
<tr>
<td>OTMA</td>
<td>OTMA Client and Server Summary view (IOTMASUM)</td>
</tr>
<tr>
<td>Pool</td>
<td>Fast Path Buffer Statistics view (IFPBST), if DMBW pool utilization exceeds the specified threshold (DMBWUtil is displayed in the field) Pool Summary service (POOLC), with the RECA pool selected, if RECA pool utilization exceeds the specified threshold (RECAUtil is displayed in the field) PI Statistics view (IPISTAT), if PI pool utilization exceeds the specified threshold (PIUUtil is displayed in the field) Detail Pool service (DPOOL), with the PSBW pool selected, if PSBW pool utilization exceeds the specified threshold (PSBWUtil is displayed in the field) Detail Pool service (DPOOL), with the DBWP pool selected, if DMBW pool utilization exceeds the specified threshold (DMBWUtil is displayed in the field) Pool Summary service (POOLS), if no pool utilization threshold is exceeded (Okay is displayed in the field)</td>
</tr>
<tr>
<td>Logging</td>
<td>IMS Log Status view (ILOGST), which shows the IMS logging status and its statistics maintained by the IMS logical and physical logger since the last restart</td>
</tr>
<tr>
<td>StpdClass</td>
<td>Transaction Overview view (ITRSUMR), if there is at least one stopped class and the class has transactions assigned to it</td>
</tr>
<tr>
<td>Latch</td>
<td>Latch Summary view (ILATCH)</td>
</tr>
<tr>
<td>CPU</td>
<td>MainView for z/OSJCPUR view, if the product is installed</td>
</tr>
<tr>
<td>Region</td>
<td>IMS Region Status view (IMSRGNRR)</td>
</tr>
<tr>
<td>Locking</td>
<td>PI Region Lock Wait List view (IPIRGW), if you are using program isolation IRLM Region Lock Wait List view (ILKRGW), if you are using IRLM</td>
</tr>
<tr>
<td>IMSplex</td>
<td>IMSplex Member Status view (IPXSUMR)</td>
</tr>
<tr>
<td>Message</td>
<td>Transaction Overview view (ITRSUMR)</td>
</tr>
<tr>
<td>Subsys</td>
<td>IMS Subsystem Connections view (IMSCONR)</td>
</tr>
<tr>
<td>Full Arvl Rate</td>
<td>IMS Performance Graph view (IMSDTLGR)</td>
</tr>
<tr>
<td>Full Queued</td>
<td>Transaction Overview view (ITRSUMR)</td>
</tr>
<tr>
<td>EMH Arvl Rate</td>
<td>EMH Message Processing Overview view (IBGSUMR)</td>
</tr>
<tr>
<td>EMH Queued</td>
<td>Transaction Overview view (ITRSUMR)</td>
</tr>
<tr>
<td>BMP Arvl Rate</td>
<td>IMS Performance Graph view (IMSDTLGR)</td>
</tr>
<tr>
<td>BMP Queued</td>
<td>Transaction Overview view (ITRSUMR)</td>
</tr>
<tr>
<td>Hyperlink from</td>
<td>To access</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
</tr>
<tr>
<td>MSQ Util Long</td>
<td>Long Message Queue Utilization monitor (ILGMSG)</td>
</tr>
<tr>
<td>MSQ Util Short</td>
<td>Short Message Queue Utilization monitor (ISHMSG)</td>
</tr>
<tr>
<td>MSQ Util QBLKS</td>
<td>Queue Blocks Utilization monitor (IQBLKS)</td>
</tr>
<tr>
<td>VSAM I/O Rate</td>
<td>Database I/O Activity for Databases/Volumes (IMS Systems) view (IDAXSUMR)</td>
</tr>
<tr>
<td>VSAM Wrst Hit</td>
<td>Database I/O Activity for VSAM Buffer Pools (IMS Systems) view (IDABVSMR)</td>
</tr>
<tr>
<td>VSAM Buf Steal</td>
<td>Database I/O Activity for VSAM Buffer Pools (IMS Systems) view (IDABVSMR)</td>
</tr>
<tr>
<td>OSAM I/O Rate</td>
<td>Database I/O Activity for Databases/Volumes (IMS Systems) view (IDAXSUMR)</td>
</tr>
<tr>
<td>OSAM Wrst Hit</td>
<td>Database I/O Activity for OSAM Buffer Pools (IMS Systems) (IDABOSMR)</td>
</tr>
<tr>
<td>OSAM Buf Steal</td>
<td>Database I/O Activity for OSAM Buffer Pools (IMS Systems) (IDABOSMR)</td>
</tr>
<tr>
<td>DEDB I/O Rate</td>
<td>Database I/O Activity for Databases/Volumes (IMS Systems) view (IDAXSUMR)</td>
</tr>
<tr>
<td>Average I/O Time</td>
<td>Database Activity Detail for an IMS System view (IDASDTLR)</td>
</tr>
<tr>
<td>Average FF/DLC</td>
<td>Database Activity Detail for an IMS System view (IDASDTLR)</td>
</tr>
<tr>
<td>Average FP/DLC</td>
<td>Database Activity Detail for an IMS System view (IDASDTLR)</td>
</tr>
<tr>
<td>Avl OLDS</td>
<td>IMS Log Status view (ILOGST) , which shows the IMS logging status and its statistics maintained by the IMS logical and physical logger since the last restart.</td>
</tr>
<tr>
<td>Pct PSBW</td>
<td>Detail Pool service (DPOOL), with the PSBW pool selected</td>
</tr>
<tr>
<td>Pct PI</td>
<td>PI Statistics view (IPISTAT), if the IMS subsystem is using PI lock management</td>
</tr>
<tr>
<td>Pct DMBW</td>
<td>Detail Pool service (DPOOL), with the DBWP pool selected</td>
</tr>
<tr>
<td>Pct DBBF</td>
<td>Fast Path Buffer Statistics view (IFPBST)</td>
</tr>
<tr>
<td>Pct RECA</td>
<td>Pool Summary service (POOLC), with the RECA pool as first in the list</td>
</tr>
<tr>
<td>IMS CTL</td>
<td>Real Storage (RS) service</td>
</tr>
<tr>
<td>IRLM</td>
<td>IRLM Statistics view (ILKSTAT), if the IMS subsystem is using IRLM lock management</td>
</tr>
<tr>
<td>DLISAS</td>
<td>Real Storage (RS) service</td>
</tr>
<tr>
<td>DBRC</td>
<td>Real Storage (RS) service</td>
</tr>
<tr>
<td>Dep Rgns</td>
<td>Real Storage (RS) service</td>
</tr>
<tr>
<td>MVS</td>
<td>MainView for z/OS JCPUR view, if the product is installed</td>
</tr>
</tbody>
</table>
The IMS Warning Messages view (IMSWARNR) is a real-time view that displays monitor warning messages and IMS system warning messages.

You can use the view to access all warning messages that are detected for an IMS subsystem.

You can hyperlink to the IMSWARNR view from the Warnings option in the:

- DBCTL Dashboard Menu (DBCMDASH)
- IMS Fast Menu (EZIFAST)
- IMS Easy Menu (EZIMS)
- IMS SSI Easy Menu (EZISSI)
- IMS System Menu (EZIMSS)
- DBCTL Operations Menu (EZDOPSR)

For more information, view the Quick Course MainView for IMS - Dashboard. You must have a BMC Support ID to view the Quick Course.

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS ID</td>
<td>IMS Performance view (IMSDTLR)</td>
</tr>
<tr>
<td>Message ID</td>
<td>An associated monitor, if a monitor message ID is highlighted</td>
</tr>
</tbody>
</table>
The IMS Subsystem Connections view (IMSCONR) is a real-time view that shows the status of all subsystems that connect to IMS, including all DBCTL connections.

You can use the following line commands on the view:

- **SS** starts a subsystem
- **PS** stops a subsystem

You can hyperlink to the IMSCONR view from the:

- **Subsys** field in the IMS Dashboard Menu (IMSMDASH)
- Subsystem Connections option in the IMS Easy Menu (EZIMS), the IMS SSI Easy Menu (EZISSI), the IMS Dashboard Menu (IMSMDASH), and the IMS Information Menu (IMSMINFO)
- Connected Subsystems option in the IMS System Menu (EZIMSS) and the IMS Operations Menu (EZIOPSR)

For more information, view the Quick Course **MainView for IMS - Dashboard**.

You must have a BMC Support ID to view the Quick Course.

**Figure 149: IMS Subsystem Connections view (IMSCONR)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsys Type (if the subsystem type is CICS)</td>
<td>IMS CICS Connections view (IMSCICSR), which shows each CICS that connects to the IMS subsystem</td>
</tr>
<tr>
<td>Thrd Cnt</td>
<td>IMS Connections Detail view (IMSCDTLR), which shows the status of each thread that connects to one or more subsystems</td>
</tr>
</tbody>
</table>
IMS Connections Detail view (IMSCDTLR)

The IMS Connections Detail view (IMSCDTLR) is a real-time view that shows the status of each thread that connects to one or more subsystems.

When a subsystem is defined but not yet connected by any region, the view shows the status of the subsystem. For subsystems that are defined and connected, the view shows the region that connects to the subsystem.

You can hyperlink to the IMSCDTLR view from the **Thrd Cnt** field in the IMS Subsystem Connections view (IMSCONR).

![Figure 150: IMS Connections Detail view (IMSCDTLR)](image)

The following hyperlink is provided on the IMSCDTLR view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rgn ID</td>
<td>Region/Thread Activity Summary view (DRGNSUMR), which provides information about active regions and threads and the transactions that are currently executing</td>
</tr>
</tbody>
</table>

IMS CICS Connections view (IMSCICSR)

The IMS CICS Connections view (IMSCICSR) is a real-time view that shows each CICS subsystem that connects to the IMS subsystem.

The view also shows PZP values, such as the minimum/maximum thread, NBA/OBA values, and current thread utilization.

You can hyperlink to the IMSCICSR view from the **Subsys Type** field in the IMS Subsystem Connections view (IMSCONR), if the subsystem type is CICS.

![Figure 151: IMS CICS Connections view (IMSCICSR)](image)
IMS Region Status view (IMSRGNSR)

The IMS Region Status view (IMSRGNSR) is a real-time detail view that provides information about IMS regions and threads.

The view shows:

- The number of regions that are started, by region type
- The number of regions that have exceeded a threshold
- A count of active and idle regions
- Information about regions that are waiting

You can hyperlink to the IMSRGNSR view from the:

- Overview option in the IMS Fast Menu (EZIFAST)
- Overview option in the IMS Resource Menu (EZIMSRS)
- IMS Dashboard Overview view (IMSDSHOR)

For more information, view the Quick Course MainView for IMS - Dashboard.
You must have a BMC Support ID to view the Quick Course.

- Region option in the IMS Dashboard view (IMSDASHR)
- Region Status Summary option in the IMS Operations Menu (EZIOPSR)
The following hyperlinks are provided on the view. The views you hyperlink to will show data only if you hyperlink from a **IMSRGNSR** field with a value greater than zero.

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODBA Threads</td>
<td>Region/Thread Activity Summary view (DRGNSUMR), which shows summarized thread information</td>
</tr>
<tr>
<td>DBCTL Threads</td>
<td>Region/Thread Activity Summary view (DRGNSUMR), which shows summarized thread information</td>
</tr>
<tr>
<td>Excess CPU Msg Regns and Excess Occ Msg Regns</td>
<td>Region Occupancy view (IRGOCCR), which summarizes dependent region processing by the region service provided to each class</td>
</tr>
<tr>
<td>Processing IMS Conn</td>
<td>Region/IMS Connect Activity view (IRGNICSM), which shows all the active regions that are executing messages that originated from IMS Connect.</td>
</tr>
<tr>
<td>All other fields</td>
<td>Region Activity Summary view (IRGNSUMR), which shows summarized region information</td>
</tr>
</tbody>
</table>

**IMS Unavailable Resources view (IMSUNRSR)**

The IMS Unavailable Resources view (IMSUNRSR) is a real-time detail view that shows the availability status of IMS resources.

You can check resource availability and then hyperlink from a field to access related information that provides more details.

You can hyperlink to the IMSUNRSR view from the:

- Unavl Res option in the IMS Dashboard view (IMSDASHR)
- Unavl Resrc option in the IMS Dashboard Overview view (IMSDSHOR)
For more information, view the Quick Course MainView for IMS - Dashboard. You must have a BMC Support ID to view the Quick Course.

- Unavailable option in the IMS Fast Menu (EZIFAST)

- Unavailable Resources option in the IMS Easy Menu (EZIMS), the IMS SSI Easy Menu (EZISSI), the IMS Operations Menu (EZIOPSR), and the IMS Dashboard Menu (IMSMDASH)

**Figure 153: IMS Unavailable Resources view (IMSUNRSR)**

```
15APR2007  15:27:38 ------ MainView WINDOW INTERFACE (Vx.x.xx) ------ SCROLL ---- PAGE
COMMAND ====>  SCROLL ====> PAGE
CURR WIN ====>  ALT WIN ===>
>W1 =IMSUNRSR=-----------------19A41CT=*--------15APR2007==15:27:38==MVIMS==D==1
---------------- -------- Unavail Resources -------- --------------- --------
IMS ID ------>  I9A
Stopped Lines...        1 Stopped Users....        0 Stopped DBs....        0
Stopped Nodes...        0 Stopped Trans....        1 Stopped Areas..        0
Stopped LTERM...        0 Stopped ROUTECDEs        0 Stopped MSNAMEs        0
Stopped APPC LUs        0 Stopped Classes..        0 Stopped LU6.1s.        0
Stopped Tpipes...        0 Stopped Programs.        1
```

The following hyperlinks are provided on the view. The views you hyperlink to will show data only if you hyperlink from a **IMSUNRSR** field with a value greater than zero.

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stopped Lines</td>
<td>Node and Line/PTERM Status view (IUNODE)</td>
</tr>
<tr>
<td>Stopped Nodes</td>
<td>Node and Line/PTERM Status view (IUNODE)</td>
</tr>
<tr>
<td>Stopped LTERMs</td>
<td>LTERM Status view (IULTERM)</td>
</tr>
<tr>
<td>Stopped APPC LUs</td>
<td>APPC Status view (IAPPCA)</td>
</tr>
<tr>
<td>Stopped Tpipes</td>
<td>OTMA Group Tpipe Summary view (ITPIPSUM)</td>
</tr>
<tr>
<td>Stopped Users</td>
<td>User Structure Status view (IUSERS)</td>
</tr>
<tr>
<td>Stopped Trans</td>
<td>Transaction Overview view (ITRSUMR)</td>
</tr>
<tr>
<td>Stopped Classes</td>
<td>Transaction Overview view (ITRSUMR)</td>
</tr>
<tr>
<td>Stopped Programs</td>
<td>Programs with Exceptions view (IPGEXCP)</td>
</tr>
<tr>
<td>Stopped DBs</td>
<td>Databases with Exceptions view (IDBEXCP)</td>
</tr>
<tr>
<td>Stopped Areas</td>
<td>Fast Path DEDB Area Overview view (IFPSUMR)</td>
</tr>
<tr>
<td>Stopped MSNAMEs</td>
<td>MSC MSNAMES view (IMCTERM)</td>
</tr>
<tr>
<td>Stopped LU6.1s</td>
<td>Node and Line/PTERM Status view (IUNODE)</td>
</tr>
</tbody>
</table>
IMS General Information view (IMSINFOR)

The IMS General Information view (IMSINFOR) is a real-time view that provides basic information about the currently specified IMS subsystem.

You can press the Help key from anywhere within the view to access an index with links to definitions of the fields.

You can hyperlink to the IMSINFOR view from the General Information option in the:

- IMS Fast Menu (EZIFAST)
- IMS System Menu (EZIMSS)
- DBCTL Dashboard Menu (DBCMDASH)

Figure 154: IMS General Information view (IMSINFOR)

27MAR2009  07:30:21 ------ MainView WINDOW INTERFACE (V6.0.00) --------------
COMMAND ===> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===>
W1 =IMSINFOR============I10X==========*========27MAR2009==07:29:30====MVIMS=====D====26
--------------- ---------     IMS General Info      ---------------  ---------
IMS ID --> I10X
IMS Name ......   I10XIMS IMS Version ...      1010 IMS Type ......     DB/DC
Restart Type ..      Cold SNAPQ Date .... 0000.000 SNAPQ Time ..... 00:00:00
Last Chkpt Date  2009.086 Last Chkpt Time  07:09:48 Chkpt Elap Time  00:19:43
Fast Path .... Installed ETO ...........    Active APPC ..........   Enabled
FDR Region ....        No XRF ...........   Not-Def Seq Buffering .   Enabled
Start DC ......   Enabled RSR ...........   Not-Def Lock Manager ..        PI
Active ACBLIB .         A Active FORMAT .         A Active MODBLKS          A
Nucleus Suffix          X Online ChangeID 0 MODBLK changes OLC
DFSPB Suffix ..       X1A Max Classes ...       999 IMSPlex Name ..      None
SMCOPY MSG ....        ON SMCOPY Master..   OFF SMCOPY Terminal       OFF
IMS Queue .....     Queue FP Indexer ....   Not-Def

The following hyperlink is provided in the IMSINFOR view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Name</td>
<td>IMS General Information menu (IMSMINFO), which provides hyperlinks to IMS system status information</td>
</tr>
</tbody>
</table>

IMS Parameters view (IMSPARMR)

The IMS Parameters view (IMSPARMR) is a real-time view that shows the IMS parameters that are in effect for the specified IMS system.
You can hyperlink to the IMSPARMR view from the:

- Parameters option in the DBCTL Dashboard Menu (DBCMDASH)
- IMS Parameters option in the IMS Information Menu (IMSMINFO)
- Parameters option in the IMS System Menu (EZIMSS)

The IMS Parameters view (IMSPARMR) is provided so that system programmers can easily determine the current value for parameters. The view eliminates the confusion that can occur when parameter overrides cause IMS to start with values that are different from the parameters that are specified in the IMS.PROCLIB members DFSPBxxx, DFSCGxxx, DFSDFxxx, and DFSDCxxx. Some system configuration parameters are also displayed in the IMSPARMR view.

You can press your Help key from anywhere within the view to access an index with links to definitions of the parameters.

If an alphabetic or alphanumeric parameter option is not specified in IMSPARMR and there is no default value for the parameter in the control block, the parameter field is blank.

If a zero is displayed for a numeric parameter, one of the following statements is true:

- Zero is the specified option.
- The option is not specified and one of the following statements is true:
  - There is no default value or the default value is zero.
  - The default value is nonzero but the default value is not reflected in the parameter control block.
Note
For more information about the parameters and for explanations of the abbreviated settings for parameters, see the IBM IMS installation documentation.

**Figure 155: IMS Parameters view (IMSPARMR)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Parameter</th>
<th>Value</th>
<th>Parameter</th>
<th>Value</th>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACBIN64</td>
<td>10</td>
<td>ACBSHR</td>
<td>N</td>
<td>ALOT</td>
<td>60</td>
<td>ACBISHR</td>
<td>N</td>
</tr>
<tr>
<td>ADIP</td>
<td>2047M</td>
<td>ADIS</td>
<td>N</td>
<td>AOS</td>
<td>N</td>
<td>ADIS</td>
<td>N</td>
</tr>
<tr>
<td>AOSLOG</td>
<td>N</td>
<td>APPC</td>
<td>N</td>
<td>APPCIOT</td>
<td>0000:00</td>
<td>APPCIOT</td>
<td>0000:00</td>
</tr>
<tr>
<td>APPCLU</td>
<td>N</td>
<td>APPCSE</td>
<td>F</td>
<td>APPLID1</td>
<td>I13H</td>
<td>APPLID2</td>
<td>(blank)</td>
</tr>
<tr>
<td>APPLID3</td>
<td>(blank)</td>
<td>(blank)</td>
<td>ARC</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARMST</td>
<td>N ASOT</td>
<td>60 AUTO</td>
<td>N</td>
<td>AUTO</td>
<td>AUTO</td>
<td>AUTO</td>
<td>AUTO</td>
</tr>
<tr>
<td>AUTOEXPRT</td>
<td>AUTO</td>
<td>AUTOIMPORT</td>
<td>RDDS BSIZ</td>
<td>2048</td>
<td>AUTO</td>
<td>AUTOIMPORT</td>
<td>RDDS BSIZ</td>
</tr>
<tr>
<td>CHTS</td>
<td>256 CIOP</td>
<td>2047M</td>
<td>CDMDCS</td>
<td>Y</td>
<td>CIOP</td>
<td>2047M</td>
<td>CDMDCS</td>
</tr>
<tr>
<td>CMDSEC</td>
<td>N CPLOG</td>
<td>150000</td>
<td>CRC</td>
<td>/</td>
<td>CPLOG</td>
<td>150000</td>
<td>CRC</td>
</tr>
<tr>
<td>CSAPSB</td>
<td>10240 CSLG</td>
<td>63 DBBF</td>
<td>50</td>
<td>LCB</td>
<td>10240 CSLG</td>
<td>63 DBBF</td>
<td>50</td>
</tr>
<tr>
<td>DBFX</td>
<td>10 DBLEVEL</td>
<td>CURR DBVERSION</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBQUESCEO</td>
<td>30 DBRCNM</td>
<td>I13HDBRBP</td>
<td>24576</td>
<td>DED</td>
<td>I13HDBRBP</td>
<td>24576</td>
<td>DED</td>
</tr>
<tr>
<td>DC</td>
<td>00H DCLWA</td>
<td>Y DFSDF</td>
<td>H3B</td>
<td></td>
<td>00H DCLWA</td>
<td>Y DFSDF</td>
<td>H3B</td>
</tr>
<tr>
<td>DLIDSIZE</td>
<td>256000 DLINM</td>
<td>I13HDLIS DLPBSB</td>
<td>256000</td>
<td></td>
<td>256000 DLINM</td>
<td>I13HDLIS DLPBSB</td>
<td>256000</td>
</tr>
<tr>
<td>DLOT</td>
<td>60 DMB</td>
<td>98304 DPTY</td>
<td>254</td>
<td></td>
<td>60 DMB</td>
<td>98304 DPTY</td>
<td>254</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**IMS Dashboard Menu (IMSMDASH)**

The IMS Dashboard Menu (IMSMDASH) is the starting point for navigating to specific IMS system status information.
When you hyperlink to the IMS Dashboard Menu from the IMS ID field in the IMS Dashboard view, the menu is filtered on the IMS subsystem that is shown in the IMS Dashboard view.

**Figure 156: IMS Dashboard Menu (IMSMDASH)**

The IMS General Information Menu (IMSMINFO) is the starting point for navigating to specific IMS system status information.

When you hyperlink to the menu from the IMS Name field in the IMS General Information view, the menu is filtered on the IMS subsystem that is shown in the IMS General Information view.

**Figure 157: IMS General Information Menu (IMSMINFO)**
IMS User Exits view (IUXTSUMR)

The IMS User Exits view (IUXTSUMR) displays statistics about the user exits that are defined in the USER_Exits section of the DFSDFxxx proclib member.

You can hyperlink to the IUXTSUMR view from EZIMSS.

The IMS User Exits view (IUXTSUMR) provides information that includes:

- The exit routine type
- The number of calls to the exit routine since the last refresh
- The date and time that the exit routine module was last refreshed
- The size of the exit routine

On the view, you can:

- Restrict the displayed user exits to one type of exit by adding a type to the IUXTSUMR command. For example, IUXTSUMR RESTART displays only user exits with a type of RESTART.

- Refresh a user exit by using the REF line command next to an entry in the display. Any change you made to the exit in the DFSDFxxx proclib member (including deleting it) is refreshed in the system.

Note

The view and commands are designed to work with IMS V13.

Figure 158: IMS User Exits view (IUXTSUMR)

19AUG2013  11:39:33 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) ----------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>                          
>M1 =IUXTSUMR=========I13H51CT=*========19AUG2013==11:32:20====MVIMS====D====0
CMD                     Number  Load    Refresh    Refresh       Exit Version
--- ExitName ExitType    Calls Address  Date       Time          Size Informati
DFSITRX1 INITTERM        1 2C86C238 17APR2013  05:29:29.64     96 DFSITRX1+
DFSITRX0 INITTERM        1 2C86C000 17APR2013  05:29:29.64    568 DFSITRX0+
DFSRSTX1 RESTART         2 2F6462AB 17APR2013  05:29:29.67     96 DFSRSTX1+
DFSRSTX0 RESTART         2 2F646000 17APR2013  05:29:29.67    680 DFSRSTX0+

No hyperlinks are available on the view.
Monitor region activity

Use the region views to monitor the activity of regions running under the target system.

Monitor region activity overview

You can use the region views to answer the following questions:

- What IMS dependent region activity is occurring?
- What work is IMS performing for currently processing transactions?
- What is the activity of a transaction?

With the region views, you can monitor the activity of groups of IMS regions from one IMS subsystem or from multiple IMS subsystems.

The following region activity views are provided:

- “Region Activity Summary view (IRGNSUMR)” on page 236
- “Region Activity Detail view (IRGNDTLR)” on page 237
- “Sequential Buffer Parm Summary view (IRGNSBSM)” on page 240
- “Seq Buf Parm Detail view (IRGNSBDT)” on page 241
- “Region Activity Timing view (IRGNTIMR)” on page 241
- “Region DL/I Activity view (IRGNDLIR)” on page 243
- “Region Fast Path Activity view (IRGNFPLR)” on page 244
- “Region IMS Connect Activity view (IRGNICSM)” on page 244
- “Region Program view (IRGNPGMR)” on page 245
Tip

To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Access the region views

You can access a filtered version of the region views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS Operations Menu (EZIOPSR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and selecting the view from the VIEWS list, or by entering REGION on the COMMAND line and selecting a view from the list of region views.

For more specific information about hyperlinks to the region views, see the sections that describe the views.

Region views commands

The region views offer primary and line commands.

Primary command

The active region views and menus support the IMSCMDS primary command.
Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

**Line commands**

The following line commands are available on the region tabular views and beside the **Region ID** field in the IRGNDTLR, IRGNTIMR, IRGNFPLR, and IRGNPILR views:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| P            | Stop a region  
Issues the IMS /STOP REGION command to stop a region or thread |
| PA           | Stop a region with an ABDUMP  
Issues the IMS /STOP REGION ABDUMP command to abnormally terminate a region or thread with a dump |
| DT           | Display a detail trace for a region  
Accesses the Detail Trace Data dialog for a region if the region is not idle and a trace is active for the region (and if the user is authorized to view detail trace extended data) |

**Note**
The P and PA line commands require implementation of the MainView AutoOPERATOR product for IMS.

**Sequential buffering commands**

The following commands are available on the sequential buffer parameter (IRGNSB*) views:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
</table>
| Start-SB | Issues the IMS /START SB command to start sequential buffering  
Place your cursor on the Start-SB command and press **Enter**. Buffering starts for all IMS dependent regions. |
| Stop-SB | Issues the IMS /STOP SB command to stop sequential buffering  
Place your cursor on the Stop-SB command and press **Enter**. Buffering stops for all IMS dependent regions. |
The Region Activity Summary view (IRGNSUMR) is a good starting place for monitoring dependent regions.

The IRGNSUMR view provides information about active regions and the transactions that are currently executing.

Data is collected from the entire IMSplex environment so that you can monitor the activity of multiple IMS regions across one or more operating systems.

For more information, view the Quick Course MainView for IMS - Region and Database Activity and MainView for IMS - Dashboard.
You must have a BMC Support ID to view the Quick Course.

You can hyperlink to a filtered version of the IRGNSUMR view from most of the EZ menus, several object menus, and many other views.

The following hyperlinks are provided in the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rgn ID</td>
<td>DRGNMR Region/Thread Menu for DBT or ODB region types or IRGNMR Region Menu for all other region types. The menus provide access to more detailed information about the selected region or thread.</td>
</tr>
<tr>
<td>Rgn Typ</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or the Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR provide detailed information about the activity for the selected region or thread.</td>
</tr>
<tr>
<td>Hyperlink from</td>
<td>To access</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Curr IWAIT or Tran CPU</td>
<td>Region/Thread Activity Timing view (DRGNTIMR) for DBT or ODB region types or the Region Activity Timing view (IRGNTIMR) for all other region types. The DRGNTIMR and IRGNTIMR views provide detailed timing information for regions and threads.</td>
</tr>
<tr>
<td>Total DL/I or Tot I/O</td>
<td>Region/Thread DL/I Activity view (DRGNDLIR) for DBT or ODB region types or Region DL/I Activity view (IRGNDLIR) for all other region types. DRGNDLIR and IRGNDLIR provide DL/I call information and I/O activity for the selected region or thread.</td>
</tr>
<tr>
<td>Total SQL</td>
<td>The Region DB2 Detail view (IRGNMQR), which shows information about the DB2 subsystems being accessed by the current transaction.</td>
</tr>
<tr>
<td>Total Lock (for PI)</td>
<td>For a region or thread with a WT-PI status, the PI Region Lock List view (IPIRGLST), which shows which PI resource the region or thread is waiting for and which regions or threads are holding the resource. For a region or thread in any status other than WT-PI, the Region/Thread Program Isolation Activity view (DRGNPILR) for DBT or ODB region types or the Region Program Isolation Activity view (IRGNPILR) for all other region types. DRGNPILR and IRGNPILR provide information about the PI activity of the selected region or thread.</td>
</tr>
<tr>
<td>Total Lock (for IRLM)</td>
<td>For a region or thread with a WT-ILRM status, the IRLM Region Lock List view (ILKRGLST), filtered to show only the regions or threads that are waiting for or holding the resource this region or thread is waiting for. For a region or thread with any status other than WT-ILRM, the ILKRGLST view, showing the resources that are held by the region or thread.</td>
</tr>
<tr>
<td>Tot MQ</td>
<td>The Region MQ Detail view (IRGNMQR), which shows information about the MQ subsystems being accessed by the current transaction.</td>
</tr>
<tr>
<td>CICS Task</td>
<td>The MainView for CICS product TASKXPND service, if MainView for CICS is installed, the region status is not IDLE, and there is a value in the field. One of the following views is displayed:</td>
</tr>
<tr>
<td>Msgs Qued</td>
<td>- Transaction Overview view (ITRSUMR), which shows scheduling status, parameter status, and region statistics for transactions. - Shared Input Messages by Queue Name view (ISQINR), which shows shared message queue structure data summarized by individual queue. - Messages by Queue Name view (ISQNAME), which shows shared message queue structure data.</td>
</tr>
</tbody>
</table>

**Region Activity Detail view (IRGNDTLR)**

The Region Activity Detail view (IRGNDTLR) provides detailed region information.
The IRGNDTLR view shows you what a transaction is doing. You can determine:

- Which databases a transaction accesses and how often
- How many times a transaction accesses a database and with what type of DL/I call
- Elapsed time, IWAIT time, and CPU utilization for the region
- The number of locks held by a BMP or JBP region between checkpoints
- The transaction’s resource usage

You can hyperlink to the IRGNDTLR view from several program isolation (IPI*) and IRLM (ILK*) views and from the:

- Region Detail option in the IRGNMR Region Menu
- Rgn Typ field (for all region types other than DBT and ODB) in the IRGNSUMR, DRGNSUMR, IRGNPGMR, and DRGNPGMR views

Figure 160: Region Activity Detail view (IRGNDTLR)

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Elap</td>
<td>Region/Thread Activity Timing view (DRGNTIMR) for DBT or ODB region types or the Region Activity Timing view (IRGNTIMR) for all other region types. The DRGNTIMR and IRGNTIMR views provide detailed timing information for regions and threads.</td>
</tr>
<tr>
<td>Hyperlink from</td>
<td>To access</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>CICS TaskID</td>
<td>MainView for CICSTASKXPND service, if the MainView for CICS product is installed and there is a value in the field</td>
</tr>
<tr>
<td>Current/Last DL/I Call</td>
<td>DL/I Call Status view (IDLIST), which provides details about the last DL/I call issued by the region</td>
</tr>
<tr>
<td>Current Lock Contention (PI)</td>
<td>PI Region Lock Wait List view (IPIRGWT), which shows either the regions waiting for locks held by this region or the holders of locks required by the region</td>
</tr>
<tr>
<td>Current Lock Detail (IRLM)</td>
<td>For a region with a WT-ILRM status, the IRLM Region Lock List view (ILKRGLST), filtered to show only the regions that are waiting for or holding the resource that this region is waiting for. For a region with any status other than WT-ILRM, the ILKRGLST view, filtered to show the resources that are held by the region</td>
</tr>
<tr>
<td>DB Calls</td>
<td>Region/Thread DL/I Activity view (DRGNDLIR) for DBT or ODB region types or the Region DL/I Activity view (IRGNDLIR) for all other region types. DRGNDLIR and IRGNDLIR show the amount of DL/I activity incurred by the transaction currently executing.</td>
</tr>
<tr>
<td>DB2 Name</td>
<td>MainView for DB2 DB2ST service, if MainView for DB2 is installed and there is a value in the field</td>
</tr>
<tr>
<td>DB2 Corrid</td>
<td>MainView for DB2 DB2ST service, if MainView for DB2 is installed and there is a value in the field</td>
</tr>
<tr>
<td>ICAL TMember</td>
<td>If a tpipe member name is displayed, OTMA Client and Server Summary view (IOTMASUM), which provides information about OTMA servers and clients</td>
</tr>
<tr>
<td>ICAL TP/TRN</td>
<td>For a tpipe, OTMA Tpipe Detail view (ITPIPDTL), which displays detailed information for a specific tpipe. For a transaction, Transaction Overview view (ITRSUMR), which shows the transactions for the selected IMS subsystem</td>
</tr>
<tr>
<td>Lock Detail</td>
<td>Region/Thread Fast Path Activity view (DRGNFPLR) for DBT or ODB region types or the Region Fast Path Activity view (IRGNFPLR) for all other region types (if there is Fast Path activity). DRGNFPLR and IRGNFPLR show Fast Path call activity for the transaction currently processing.</td>
</tr>
<tr>
<td>MQ accessed</td>
<td>Region MQ Detail view (IRGNMQR), which shows activity and status for each MQ subsytems being accessed by the current transaction</td>
</tr>
<tr>
<td>OTMA Client</td>
<td>Region/IMS Connect Activity view (IRGNICSM), which shows all the active regions that are executing messages that originated from IMS Connect</td>
</tr>
<tr>
<td>OTMA Member</td>
<td>OTMA Client and Server Summary view (IOTMASUM), which provides information about OTMA servers and clients</td>
</tr>
<tr>
<td>PI Activity (if not N/A)</td>
<td>Region/Thread Program Isolation Activity view (DRGNPILR) for DBT or ODB region types or Region Program Isolation Activity view (IRGNPILR) for all other region types. DRGNPILR and IRGNPILR show the region program isolation statistics for the transaction that is currently running.</td>
</tr>
</tbody>
</table>
Hyperlink from | To access
---|---
Plan Name | MainView for DB2 DUSER service, if MainView for DB2 is installed and there is a value in the field

Queued | One of the following views is displayed:

- Transaction Overview view (ITRSUMR), which shows scheduling status, parameter status, and region statistics for transactions
- Shared Input Messages by Queue Name view (ISQINR), which shows shared message queue structure data summarized by individual queue
- Messages by Queue Name view (ISQNAMER), which shows shared message queue structure data

Seq Bf Usg | Seq Buf Parm Detail view (IRGNSBDT), which displays the Sequential Buffer (SB) parameter settings for a specific IMS dependent region

SQL Total | MainView for DB2 DUSER service, if MainView for DB2 is installed and there is a value in the field

---

### Sequential Buffer Parm Summary view (IRGNSBSM)

The Sequential Buffer Parm Summary view (IRGNSBSM), displays a summary of the Sequential Buffer (SB) parameter settings of all started IMS dependent regions.

**Figure 161: Sequential Buffer Parm Summary view (IRGNSBSM)**

| 13SEP2011 12:01:21 ----- MainView WINDOW INTERFACE (V6.0.00) ----------------- | 
| COMMAND ===> | SCROLL ===> CSR |
| CURR WIN ===> 1 | ALT WIN ===> |
| W1 -IRGNSBSM- ==*==10XIMS==*==========13SEP2011==12:01:21==MVIMS====D====4 | 
| Related Views | 
| IMS Parameters | IMFBEX Summary | IMFECP Summary |
| Commands: Start-SB Stop-SB | Issue IMS Cmds |

| Rgn Rgn-Name IMS-ID SBCO SBIC EVAL BHBUF SBBUF SBBUFCB START STOP |
|---|---|---|---|---|---|---|---|---|---|
| 1 I10XMPR I10X <y> <y> NEG YES YES NO 200 4321 |
| 2 I10XMPRZ I10X N/A N/A POS NO NO YES N/A N/A |
| 3 I10XIFP1 I10X <y> <y> NEG NO NO NO N/A N/A |
| 4 I10XIFP2 I10X N/A N/A ALL NO NO NO N/A N/A |

No hyperlinks are available on the view.
Seq Buf Parm Detail view (IRGNSBDT)

The Seq Buf Parm Detail view (IRGNSBDT) displays the Sequential Buffer (SB) parameter settings for a specific IMS dependent region.

You can hyperlink to the IRGNSBDT view from the:

- **Rgn** field in the IRGNSBSM view
- **Seq Bf Usg** field in the IRGNDTLR view

**Figure 162: Seq Buf Parm Detail view (IRGNSBDT)**

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Window Interface (V6.0.00)</th>
<th>Command</th>
<th>Scroll</th>
<th>CSR</th>
<th>Current Window</th>
<th>Alternative Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>13SEP2011 12:02:55</td>
<td>MainView</td>
<td>---------</td>
<td>--------</td>
<td>-----</td>
<td>----------------</td>
<td>--------------------</td>
</tr>
<tr>
<td></td>
<td>W1 =IRGNSBDT=I10XIMS=13SEP2011=12:02:55=MVIMS=2</td>
<td>Seq Buf Parm Detail</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region ID: 1</td>
<td>Region Jobname: I10XMPR</td>
<td>IMS ID: I10X</td>
<td>No Stop-SB</td>
<td>Start-SB Stop-SB IMSCMDS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SB Stopped: No</td>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--SBSNAP--</td>
<td>--SBSNAP (continued)</td>
<td>--Others--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BHBUF: YES</td>
<td>START: 200</td>
<td>SBESNAP-EVAL NEG</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBBUF: YES</td>
<td>STOP: 4321</td>
<td>SBIC: &lt;y&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBBUFDCB: NO</td>
<td></td>
<td>SBIC: &lt;y&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---SBPARM-----

<table>
<thead>
<tr>
<th>ACTIV BUFSETS</th>
<th>DB</th>
<th>DD</th>
<th>PCB</th>
<th>PSB</th>
</tr>
</thead>
<tbody>
<tr>
<td>COND: 4</td>
<td>IVPDB1</td>
<td>D1234567</td>
<td>C7654321</td>
<td>P9</td>
</tr>
<tr>
<td>NO: 58</td>
<td>IVPDB1</td>
<td>ABCDEFGH</td>
<td>STUVWXYZ</td>
<td>P2468135</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Region Activity Timing view (IRGNTIMR)

The Region Activity Timing view (IRGNTIMR) provides detailed transaction timing information.

The IRGNTIMR view divides a transaction's elapsed time into the following major categories: DL/I DB, DL/I OPEN, SYNC POINT, DLI/TM, ESS, and APPLICATION. Within the major elapsed time categories, the view provides IWAIT times for the significant IWAITs categories and IWAIT times for miscellaneous IWAITs.

The CURRENT EVENT TIMING section shows the elapsed time of the currently active event and of any current IWAIT. The TOTAL EVENT TIMING section shows the elapsed times and IWAIT times for completed events within the life of the transaction.
The availability of elapsed and IWAIT times displayed in the view is controlled by the ETIMEELP and ETIMEIWT parameters in BBPARM member IMFECP00. (The parameters are set by default to collect the data. For information about the BBPARM IMFECP00 member, see the MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the parameters, use the IECPSUMR view.)

The CPU TIMING section shows the CPU used by the transaction. The availability of CPU data displayed in the view is controlled by the CPU parameter in BBPARM member IMFECP00.

You can hyperlink to the IRGNTIMR view from the:

- **Curr IWAIT** field and **T ran CPU** or **UOW CPU** field (for all region types other than DBT and ODB) in the IRGNSUMR and DRGNSUMR views
- **Active Elap** field (for all region types other than DBT and ODB) in the IRGNDTLR and DRGNDTLR views
- Region Timing Detail option in the IRGNMR Region Menu

**Figure 163: Region Activity Timing view (IRGNTIMR)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CICS TaskID</td>
<td>MainView for CICSTASKXPND service, if the MainView for CICS product is installed and there is a value in the field</td>
</tr>
<tr>
<td>MQs accessed</td>
<td>Region MQ Detail view (IRGNMQR), which shows activity and status for each MQ subsytems being accessed by the current transaction</td>
</tr>
</tbody>
</table>
Region DL/I Activity view (IRGNDLIR)

The Region DL/I Activity view (IRGNDLIR) displays the amount of DL/I call activity incurred by a thread's current UOW (unit of work) or by a currently executing BMP or JBP.

The IRGNDLIR view shows the total number of DL/I database calls issued against a database by a thread UOW or by a BMP or JBP. Separate totals are provided for GET UNIQUE, GET NEXT, GET HOLD UNIQUE, GET HOLD NEXT, GET NEXT within PARENT, GET HOLD NEXT within PARENT, REPLACE, INSERT, and DELETE calls. The view also shows the average read and write times and the total number of key reads and writes and non-key reads and writes.

You can hyperlink to the IRGNDLIR view from the:

- **Tot DLI** field (for all region types other than DBT and ODB) in the IRGNSUMR and DRGNSUMR views
- **DB Calls** field in the IRGNDTLR view
- **Tot DLI** field (for all region types other than DBT and ODB) in the IRGNPGMR and DRGNPGMR views

**Figure 164: Region DL/I Activity view (IRGNDLIR)**

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Ver</th>
<th>Trancode</th>
<th>Tot DLI</th>
<th>GU</th>
<th>GN</th>
<th>REPL</th>
<th>ISRT</th>
<th>DLET</th>
<th>GHU</th>
<th>GHN</th>
<th>GHNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVPDB3</td>
<td>0</td>
<td>IVTFD</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CUSTHDAM</td>
<td>0</td>
<td>THDAMINQ</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IVPDB4</td>
<td>0</td>
<td>IVTFM</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Region Fast Path Activity view (IRGNFPLR)

The Region Fast Path Activity view (IRGNFPLR) displays the region Fast Path call activity for the transaction currently processing in the selected region.

The IRGNFPLR view shows the first ten Fast Path database enqueues held by the selected region. Each record shows the Fast Path database area being accessed by the transaction, the enqueue type, and the RBA/ENQ for the IMS resource being locked.

You can hyperlink to the IRGNFPLR view from the Lock Detail field in the IRGNDTLR view.

Figure 165: Region Fast Path Activity view (IRGNFPLR)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>CICS TaskID</td>
<td>MainView for CICSTASKXPND service, if MainView for CICS is installed and</td>
</tr>
<tr>
<td></td>
<td>there is a value of DBT in the field</td>
</tr>
<tr>
<td>MQs accessed</td>
<td>Region MQ Detail view (IRGNMQR), which shows activity and status for each</td>
</tr>
<tr>
<td></td>
<td>MQ subsytems being accessed by the current transaction</td>
</tr>
</tbody>
</table>

Region IMS Connect Activity view (IRGNICSIM)

The Region/IMS Connect Activity view (IRGNICSIM) provides a list of all the IMS regions currently processing transactions from IMS Connect.

You can hyperlink to the IRGNICSIM view from the:
- **Processing IMS Conn** field in the IMSRGNSR view
- **Type** field in the IOTMASUM view

**Figure 166: Region/IMS Connect Activity view (IRGNICSM)**

27MAR2009 13:43:51 ------ MainView WINDOW INTERFACE (V6.0.00) ----------------COMMAND ===> SCROLL ===> CSR CURR WIN ===> 1 ALT WIN ===> >M1 =IRGNICSM=========(ALL====*====*)27MAR2009==13:43:51====MVIMS====D====0 - Region/IMS Connect Activity

**Related Views**
- IMS Connect Overview

<table>
<thead>
<tr>
<th>Region Program view (IRGNPGMR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Region Program view (IRGNPGMR) provides information about active regions, the transactions that are currently executing, and the associated application program.</td>
</tr>
<tr>
<td>Data is collected from the entire IMSplex environment so that you can monitor the activity of multiple IMS regions across one or more operating systems.</td>
</tr>
<tr>
<td>You can hyperlink to the IRGNPGMR view from the Region Program option in the IPGMR Program Menu.</td>
</tr>
</tbody>
</table>

**Figure 167: Region Program view (IRGNPGMR)**

09APR2013 12:31:51 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) ----------------COMMAND ===> SCROLL ===> CSR CURR WIN ===> 1 ALT WIN ===> >W1 =IRGNPGMR==========I13H51CT=*========09APR2013==12:31:51====MVIMS====D====1 - Region Program Summary

**Related Views**
- Region Status
- Waiting Rgns
- BMP Rgns
- IMS Connect
- Region Occupancy
- MPP Rgns
- DBCTL Rgns
- ALL Rgns
- Region Summary
- Fastpath Rgns
- JAVA Rgns

<table>
<thead>
<tr>
<th>CMD</th>
<th>Rgn</th>
<th>IMS</th>
<th>FE</th>
<th>Rgn Region</th>
<th>Tran</th>
<th>PSB</th>
<th>Prog Program</th>
<th>Msgs Tot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I13H</td>
<td>N/A</td>
<td>MDP</td>
<td>IDLE-WFI</td>
<td></td>
<td></td>
<td>DFSIVP4</td>
<td></td>
<td>SMQ</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

The following hyperlinks are provided:
<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rgn ID</td>
<td>DRGNMR Region/Thread Menu for DBT or ODB region types or IRGNMR Region Menu for all other region types The menus provide access to more detailed information about the selected region or thread.</td>
</tr>
<tr>
<td>Rgn Typ</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or the Region Activity Detail view (IRGNDTLR) for all other region types DRGNDTLR and IRGNDTLR provide detailed information about the activity for the selected region or thread.</td>
</tr>
<tr>
<td>Curr IWAIT or Tran CPU</td>
<td>Region/Thread Activity Timing view (DRGNTIMR) for DBT or ODB region types or the Region Activity Timing view (IRGNTIMR) for all other region types The DRGNTIMR and IRGNTIMR views provide detailed timing information for regions and threads.</td>
</tr>
</tbody>
</table>
| Msgs Qued     | One of the following views is displayed:  
- Transaction Overview view (ITRSUMR), which shows scheduling status, parameter status, and region statistics for transactions  
- Shared Input Messages by Queue Name view (ISQINR), which shows shared message queue structure data summarized by individual queue  
- Messages by Queue Name view (ISQNAMER), which shows shared message queue structure data |
| Total DL/I    | Region/Thread DL/I Activity view (DRGNDLIR) for DBT or ODB region types or Region DL/I Activity view (IRGNDLIR) for all other region types DRGNDLIR and IRGNDLIR provide DL/I call information and I/O activity for the selected region or thread. |
| Total SQL     | The MainView for DB2 product DUSER service, if MainView for DB2 is installed and there is a value in the field |
| Total Lock (for PI) | For a region or thread with a WT-PI status, the PI Region Lock List view (IPIRGLST), which shows which PI resource the region or thread is waiting for and which regions or threads are holding the resource  
For a region or thread in any status other than WT-PI, the Region/Thread Program Isolation Activity view (DRGNPILR) for DBT or ODB region types or the Region Program Isolation Activity view (IRGNPILR) for all other region types. DRGNPILR and IRGNPILR provide information about the PI activity of the selected region or thread. |
| Total Lock (for IRLM) | For a region or thread with a WT-ILRM status, the IRLM Region Lock List view (ILKRGLST), filtered to show only the regions or threads that are waiting for or holding the resource this region or thread is waiting for  
For a region or thread with any status other than WT-IRLM, the ILKRGLST view, showing the resources that are held by the region or thread |
| Tot MQ        | The Region MQ Detail view (IRGNMQR), which shows the MQ subsystems being accessed by the current transaction. |
Region Program Isolation Activity view (IRGNPILR)

The Region Program Isolation Activity view (IRGNPILR) provides the region program isolation (PI) statistics for the transaction currently running.

The statistics show you the amount and type of segment-locking activity an application is performing.

The statistics are reset when the transaction terminates. If the application processes multiple transactions in one scheduling, the statistics include the activity of all the transactions processed during the scheduling.

You can hyperlink to the IRGNPILR view from the:

- Tot Lock field (for all region types other than DBT and ODB) in the IRGNSUMR, DRGNSUMR, IRGNPGMR, and DRGNPGMR views

- PI activity field in the IRGNDTLR view

Figure 168: Region Program Isolation Activity view (IRGNPILR)

<table>
<thead>
<tr>
<th>Region ID</th>
<th>Status</th>
<th>IDLE Tran Enqueue</th>
<th>00:00:00.0000</th>
<th>Tran Elapsed</th>
<th>0.0000</th>
<th>Classes</th>
<th>1 2 4 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobname..</td>
<td>I13HM4</td>
<td>DBQ Waiting..</td>
<td>N Tran Elapsed</td>
<td>Region Idle..</td>
<td>337.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMS ID...</td>
<td>I13H</td>
<td>Trancode..........</td>
<td>Classes.......</td>
<td>CICS TaskID..</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front End.</td>
<td>N/A</td>
<td>PSB.............</td>
<td>DB2 AuthID...</td>
<td>CICS TaskID..</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVS Name..</td>
<td>SJSIC</td>
<td>LTERM...........</td>
<td>DB2 Access..</td>
<td>CICS TaskID..</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XCF Name..</td>
<td>IMSHR3D</td>
<td>User.............</td>
<td>N Tran Elapsed</td>
<td>Region Idle..</td>
<td>337.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Region Type</td>
<td>MPP</td>
<td>DB2 accessed..</td>
<td>N CICS UOW...</td>
<td>CICS UOW...</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Msg Source.</td>
<td>N</td>
<td>MQ accessed..</td>
<td>N CICS UOW...</td>
<td>N CICS UOW...</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:
### Region DB2 Detail view (IRGNDB2R)

The Region DB2 Detail view (IRGNDB2R) provides information about each DB2 subsystems being accessed by the current transaction (one subsystem per row).

You can hyperlink to the IRGNPILR view from the:

- **Tot SQL** field in the IRGNSUMR, DRGNSUMR, IRGNPGMR, and DRGNPGMR views
- **DB2 accessed** field in the IRGNDB2R, DRGNDTLR, IRGNFPLR, IRGNPILR, IRGNTIMR, DRGNTIMR, and DRGNPGMR views

#### Figure 169: Region DB2 Detail view (IRGNDB2R)

```
09APR2013  13:57:26 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) -----------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>M1 =IRGNDB2R==========I13YGBG==*========09APR2013==13:57:26====MVIMS====D====0
+                         Region DB2 Detail
                            DB2  IMS  Rgn  Status   Plan     Opns Sels  Isrts Delts Updts DLLs  Dyns Ctrls
                            Name ID   ID            Name
                            DB2A IMSA 001 SON      PLANA       3  100     10     1     4    0     0     0
```

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2 Name</td>
<td>The MainView for DB2 product Active Threads view (THDACTV), which displays information about each active thread</td>
</tr>
</tbody>
</table>
Region MQ Detail view (IRGNMQR)

The Region MQ Detail view (IRGNMQR) provides information about each MQ subsystem being accessed by the current transaction (one subsystem per row).

You can hyperlink to the IRGNMQR view from the:

- **Tot MQ** field in the IRGNSUMR, DRGNSUMR, IRGNPGMR, and DRGNPGMR views
- **MQ accessed** field in the IRGNDTLR, DRGNDTLR, IRGNFPLR, IRGNPILR, IRGNTIMR, DRGNFPLR, DRGNPILR, and DRGNTIMR views

Figure 170: Region MQ Detail view (IRGNMQR)

No hyperlinks are available on the view.

Region Menu (IRGNMR)

The Region Menu (IRGNMR) is an object menu for a selected region.

From the IRGNMR menu, you can access more detailed information about the region.
You can hyperlink to the IRGNMR menu from the Rgn ID field (for all region types other than DBT and ODB) in the IRGNSUMR, DRGNSUMR, IRGNPGMR, and DRGNPGMR views.

Figure 171: Region Menu (IRGNMR)
Analyze program isolation lock contention

Use the program isolation (PI) lock views to quickly analyze and resolve PI resource contention problems.

Program isolation lock contention analysis overview

You can use the program isolation views to answer the following questions:

- Is there a contention problem?
- How severe or widespread is the problem?
- Which resources are most contended for?
- How can I resolve the contention problem?

Four of the program isolation views (IPIRGLST, IPIRGWT, IPIRSWT, and IPIRSSUM) can be used for extensive analysis of PI lock contention. The other view (IPISTAT) shows overall PI resource use.

The PI Region Lock List view (IPIRGLST) shows the regions that are contending for PI locks, identifies the resource that each waiting region is waiting for, and provides a list of "ultimate" holders that are causing lock contention.

The ultimate holder is not necessarily the immediate holder of a lock, which may itself be in a PI wait. The ultimate holder is the thread at the end of the wait chain. You can issue a line command in the IPIRGLST view to terminate the ultimate holder region if you decide that doing so is warranted.
Analyze lock problems

To analyze lock problems, start with the PI Region Lock Wait List view (IPIRGWT).

The IPIRGWT view displays a list of all regions that are waiting for a resource lock, and it provides information about the resource and the region causing the lock contention. The view is sorted by descending wait time to highlight waiting regions that are most impacted.

You can determine the cause of a wait by examining the ultimate holder information in the IPIRGWT view. If there is only one ultimate holder, its region ID and jobname are displayed.
Note

If a waiting region has requested an exclusive lock for a resource held by several regions with shared locks, there will be multiple ultimate holders in the Cnt Ult field. In that case, you should hyperlink from the Cnt Ult field to access the PI Region Lock List view (IPIRGLST), which lists the ultimate holders of a resource.

The resource in contention is identified in the IPIRGWT Database Name field (to the right in the view). You may need to know how many other regions are waiting for the resource to understand the impact of the resource contention. You can hyperlink on the Database Name field to access a list of all regions waiting for the resource in the PI Resource Lock Wait List view (IPIRSWT).

A resource wait cannot be resolved until the ultimate holder region releases the resource. The resource might not be released until the program issues its next sync point, which may be when the program finishes execution. If you have the MainView AutoOPERATOR product for IMS implemented, you can issue the P or PA command from the IPIRGWT view to stop the ultimate holder region, but you should determine the impact of doing so before you proceed.

To determine the impact of stopping an ultimate holder region, check the Ultimate Held field on the IPIRGLST view to find out how many resources are being held by the region. If the number is low, stopping the region will have less impact. If the number is high, you should consider increasing the region’s performance level so that it can complete processing sooner, rather than issuing a stop region command.

Note

For more information about the P and PA actions, see “Line commands” on page 255.

Ultimate lock holder

The ultimate holder of a program isolation lock is one of the following holders:

- A region holding the lock required by another region
- A region holding the lock required by a waiting region that is holding a different lock required by another waiting region

Example

Region 1 is running and holds lock A
Region 2 is waiting for lock A
Region 1 is the ultimate holder of the lock required by Region 2.
**Example**

Region 1 is running and holds lock A  
Region 2 is waiting for lock A and holds lock B  
Region 3 is waiting for lock B  
Region 1 is the ultimate holder of the lock that must be freed before Region 2 and Region 3 can continue processing.

The ultimate holder of a lock is significant because the ultimate holder must release the lock before other work can proceed. The ultimate holder can release the lock either by:

- Completing normally
- Completing expeditiously (influenced by operations control or by an increase in the region’s performance level)
- Being stopped with a P or PA region stop line command (see “Line commands” on page 255)

Before you use a stop command on an ultimate region to free a lock, you should consider the amount of time that backout processing will take as a result of the stop command. If the region is an errant BMP, stopping the region may take longer than allowing processing to complete.

In example 2, neither Region 3 nor Region 2 will continue processing until Region 1 releases lock A, and you cannot cause Region 2 to release its lock without terminating the IMS control region. Region 1 is the cause of the problem, and the only way to solve the problem is to influence the processing of Region 1, the ultimate lock holder.

**Note**

There may be more than one ultimate holder of a lock when regions hold shared locks and the requester requires an exclusive lock.

---

**Access the program isolation lock views**

You can access a filtered version of the program isolation lock views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)

---

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You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering PI on the COMMAND line and then selecting a view from the list of program isolation lock views. For more specific information about hyperlinks to the PI lock views, see the sections that describe the views.

**Line commands**

The following line commands are available on the program isolation lock views with a line command area:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| P            | Stop a region  
Issues the IMS /STOP REGION command to stop a region or regions.  
If you issue the P command on a line in the IPIRGLST view, it stops only the region listed on that line.  
If you issue the P command on a line in the IPIRSWT or IPIRGWT lock wait list view, it stops all ultimate regions that hold a resource needed by the waiting region. |
| PA           | Stop a region with an ABDUMP  
Issues the IMS /STOP REGION ABDUMP command to abnormally terminate a region or regions with a dump.  
If you issue the command on a line in the IPIRGLST view, it abdumps only the region listed on that line.  
If you issue the command on a line in the IPIRSWT or IPIRGWT lock wait list view, it abdumps all ultimate regions that hold a resource needed by the waiting region. |

**Note**

Line commands require implementation of MainView AutoOPERATOR for IMS.

**PI Region Lock List view (IPIRGLST)**

The PI Region Lock List view (IPIRGLST) provides information about regions waiting for program isolation locks and the cause for the wait.
The view sorts waiting regions by wait time and lists the regions with the longest wait times at the top.

The IPIRGLST view has one row for each waiter region. That row shows the resource that the region is waiting for. Each waiter region row is followed by one or more rows that describe the ultimate holder of the lock.

**Note**

You can use the P and PA region stop line commands in the IPIRGLST view to stop an individual region if you decide that stopping a region is the best course of action to end a resource contention (see “Line commands” on page 255).

When you access the IPIRGLST view by hyperlinking from the 

- Regions Holding option in the IMS System Menu (EZIMSS)
- Holding Regions option in the program isolation menu (IPIMS)
- Tot Lock field in the IRGNSUMR and IRGNPGMR region activity views
- Status field in the Region Program Isolation Activity View (IRGNPILR)
- Region Lock Detail option in the IRGNMR Region Menu

**Figure 172: PI Region Lock List view (IPIRGLST)**

<table>
<thead>
<tr>
<th>Waiters ID</th>
<th>Wait</th>
<th>Ultimate Hold Hold Status Typ Name Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 I9AMP2</td>
<td>1</td>
<td>253.3</td>
</tr>
<tr>
<td>4 I9APIWT4</td>
<td>2</td>
<td>18.9</td>
</tr>
<tr>
<td>5 I9APIWT3</td>
<td>2</td>
<td>19.4</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiters ID</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or the Region Activity Detail view (IRGNDTLR) for all other region types DRGNDTLR and IRGNDTLR show what processing the selected waiting region has completed up to now.</td>
</tr>
</tbody>
</table>
## PI Region Lock Wait List view (IPIRGWT)

The PI Region Lock Wait List view (IPIRGWT) provides a list of all regions waiting for database resource locks and shows the ultimate holder of each resource in contention.

The IPIRGWT view is a good starting place for analyzing lock problems. The view highlights problems and shows their extent. (For more information about analyzing lock problems, see “Analyze lock problems” on page 252.)

**Note**  
You can use the P and PA region stop line commands in the IPIRGWT view to stop all ultimate regions that hold a resource needed by a waiting region, if you decide that stopping regions is the best course of action to end a resource contention (see “Line commands” on page 255).

You can hyperlink to the IPIRGWT view from the:

- Database Lock Waits option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISSI)
- Regions Waiting option in the IMS System Menu (EZIMSS)
- Regions in Lock Wait option in the IMS Operations Menu (EZIOPSR) and the IMS DBA Easy Menu (EZIDBA).
- **Locking** field in the IMS Dashboard view (IMSDASHR)
- Locking Contention option in the IMS Dashboard Menu (IMSMDASH)
- **Regions in PI Wait** field in the IPISTAT view
- **Number Waiters** field in the IPIRSSUM view
- Regions in PI Wait in the PI Statistics menu (IPIMS)

**Figure 173: PI Region Lock Wait List view (IPIRGWT)**

27MAR2009 08:24:14 ------ MainView WINDOW INTERFACE (V6.0.00) -------
COMMAND ===> SCROLL ===> PAGE
CURR WIN ==> 1 ALT WIN ===>
>M1 =IPIRGWT=============I10X======*========27MAR2009==08:24:14====MVIMS====D====0
-PI Region Lock Wait List
  Related Views
  . Resource Contention . Holding Regions
  . Database Contention . PI Statistics

CMD Rgn Region Rgn PSB Tran Wait Cnt Ult Ultimate Database
--- ID Jobname Typ Name Name Time Ult Rgn Jobname Name DCB
 3 I9AMP2 MPP PHDAMINQ THDAMINQ 418.1 1 6 I9APIWT2 CUSTHDAM 01
 5 I9APIWT3 BMP PTEST02 GBGTRNB1 184.2 1 6 I9APIWT2 CUSTHDAM 01
 4 I9APIWT4 BMP PTEST02 GBGTRNB1 183.7 1 6 I9APIWT2 CUSTHDAM 01

No hyperlinks are available on the view.

**PI Resource Lock Wait List view (IPIRSWT)**

The PI Resource Lock Wait List view (IPIRSWT) provides a list of all resources that regions are waiting to get locks for.

**Note**

You can use the P and PA region stop line commands in the IPIRSWT view to stop **all** ultimate regions that hold a resource needed by a waiting region, if you decide that stopping regions is the best course of action to end a resource contention (see “Line commands” on page 255).

Use the IPIRSWT view to display all resources that have regions waiting for them. You can hyperlink to the IPIRSWT view from:

- The Resource Contention option in the IMS System Menu (EZIMSS)
- Any of the three Wait fields in the Region Program Isolation Activity View (IRGNPILR)
- The **Database Name** field in the IPIRGWT and IPIRSSUM views

54x390 PI Resource Lock Wait List view (IPIRSWT)

The PI Resource Lock Wait List view (IPIRSWT) provides a list of all resources that regions are waiting to get locks for.

**Note**

You can use the P and PA region stop line commands in the IPIRSWT view to stop **all** ultimate regions that hold a resource needed by a waiting region, if you decide that stopping regions is the best course of action to end a resource contention (see “Line commands” on page 255).

Use the IPIRSWT view to display all resources that have regions waiting for them. You can hyperlink to the IPIRSWT view from:

- The Resource Contention option in the IMS System Menu (EZIMSS)
- Any of the three Wait fields in the Region Program Isolation Activity View (IRGNPILR)
- The **Database Name** field in the IPIRGWT and IPIRSSUM views

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The Resource Contention option in the program isolation menu (IPIMS)

**Figure 174: PI Resource Lock Wait List view (IPIRSWT)**

<table>
<thead>
<tr>
<th>CMD Database</th>
<th>Waiter</th>
<th>PSB</th>
<th>Tran</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSTHDAM 01</td>
<td>CUSTHDAM 01</td>
<td>CUSTHDAM 01</td>
<td></td>
</tr>
<tr>
<td>CUSTHDAM 01</td>
<td>00001A6C</td>
<td>184.9</td>
<td>5</td>
</tr>
<tr>
<td>CUSTHDAM 01</td>
<td>000013DA</td>
<td>184.4</td>
<td>4</td>
</tr>
<tr>
<td>CUSTHDAM 01</td>
<td>00001A6C</td>
<td>418.8</td>
<td>3</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Name</td>
<td>Database I/O Activity for Physical Databases (IMS Systems) view (IDAPSUMR), where you can access database I/O activity information at the level of the physical database</td>
</tr>
<tr>
<td>Waiter (Region) Jobname</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or the Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the selected waiting region has done up to now.</td>
</tr>
<tr>
<td>PSB Name</td>
<td>DLIST service, which provides details about the last DL/I call issued by the selected region</td>
</tr>
</tbody>
</table>

**PI Resource Lock Summary view (IPIRSSUM)**

The PI Resource Lock Summary view (IPIRSSUM) lists all database resources that are in contention.

Degree of contention is measured by the number of regions waiting (shown in the **Number Waiters** field).

You can hyperlink to the IPIRSSUM view from the:

- Database Contention option in the IMS System Menu (EZIMSS)
- Database Contentions option in the IMS DBA Easy Menu (EZIDBA)
- Database Contention option in the program isolation menu (IPIMS)

**Figure 175: PI Resource Lock Summary view (IPIRSSUM)**

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Number Waiters</th>
<th>Holders</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSTHDAM</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Name</td>
<td>PI Resource Lock Wait List view (IPIRSWT), which shows the regions that are waiting for the selected resource</td>
</tr>
<tr>
<td>Number Waiters</td>
<td>PI Region Lock Wait List view (IPIRGWT), which shows the regions that are waiting for the selected resource</td>
</tr>
</tbody>
</table>

**PI Statistics view (IPISTAT)**

The PI Statistics view is a real-time or past interval detail view that shows dynamic and internal IMS program isolation pool and QCB statistics.

You can hyperlink to the IPISTAT view from the:

- PI Statistics option in the IMS System Menu (EZIMSS)
Pool field in the IMS Dashboard view (IMSDASHR)

Figure 176: PI Statistics view (IPISTAT)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Pool Size</td>
<td>PI Statistics Menu (IPIMS), where you can access information about waiting regions, ultimate holders, and resource contention</td>
</tr>
<tr>
<td>Regions in PI Wait</td>
<td>PI Region Lock Wait List view (IPIRGWT), which shows the regions that are waiting for a resource</td>
</tr>
</tbody>
</table>

PI Statistics Menu (IPIMS)

The PI Statistics Menu (IPIMS) provides access to detailed information about waiting regions, ultimate holders, and resource contention.
You can hyperlink to the IPIMS menu from the **Current Pool Size** field in the IPISTAT view.

**Figure 177: PI Statistics Menu (IPIMS)**

```
15APR2007  08:40:23 ------ MainView WINDOW INTERFACE (Vx.x.xx) --------------- SCROLL ===> CSR
CAMMAND ===>                    CURR WIN ===> 1     ALT WIN ===>
W1 =IPIMS-------------------(ALL=-----*-----)15APR2007==10:51:53==MVIMS==D==1
PI Statistics Menu
Timeframe - Realtime
  PI Activity                    +-----------------+    Tools and Menus
  . Regions in PI Wait          | Place cursor on|    > IMS Easy Menu
  . Resource Contention        | menu item and  |    > IMS Fast Menu
  . Holding Regions            | press ENTER    |    > IMS Classic Menu
  . Database Contention        +-----------------+    . Return...
```
Analyze contention

Use the contention views to:

■ Determine the source of latch contentions (see “Analyze N-Way data sharing resource contention” on page 263)

■ Analyze and resolve N-way data sharing contentions (see “Analyze latch contention” on page 279)

Analyze N-Way data sharing resource contention

You use the IRLM lock views to analyze and resolve N-way data sharing resource contention.

You can use the views to answer the following questions:

■ Is there a contention problem?

■ How severe or widespread is it?

■ Which resources are most contended for?

■ How do I resolve the problem?

The degree of contention is indicated in fields that show the number of regions waiting, the longest wait times, and the average wait times.

The following IRLM lock views are provided:

■ “IRLM Ultimate Holder List view (ILKULLST)” on page 266

■ “IRLM Wait With Ultimate Holder view (ILKULTWT)” on page 267

■ “IRLM Region Lock List view (ILKRGLST)” on page 268
Analyze lock problems

A good way to begin analyzing lock problems is by using the:

- IRLM Ultimate Holder List view (ILKULLST)
- IRLM Wait With Ultimate Holder view (ILKULTWT)

You can also look at the Wait Time field in the ILKRGWT view. The Wait Time field shows you the extent of any problems that may exist (for example, how long the waiters for a resource have been waiting).

To investigate a long wait time, you can hyperlink from the Wait Time field to access the IRLM Resource Lock List view (ILKRSLST), which shows who holds the resource that is being waited for and who else may be waiting for it.

The cause of a problem may be that the holder of the resource is also waiting for another resource. To see what the holder is waiting for, hyperlink from the holder’s Hold Time field in the ILKRSLST view. The hyperlink takes you to the ILKRGLST view, which provides a list of all locks held or waited for by that specific holder.

If you want to investigate further, hyperlink from the holder’s Wait Time field in the ILKRGLST view to see who holds the resource that the holder is waiting for. You can repeat this process until you find the original cause of the problem.
Access the IRLM lock views

You can access a filtered version of the IRLM lock views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Operations Menu (EZIOPSR)
- IMS DBA Easy Menu (EZIDBA, EZIDBAR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering IRLM on the COMMAND line and then selecting a view from the list of IRLM views.

For more specific information about hyperlinks to the PI lock views, see the sections that describe the views.

ILKSUMR view and ILKM menu primary command

The ILKSUMR view and the ILKM menu support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

IRLM lock views line commands

The IRLM lock views help you determine the cause of lock contention problems.

The following line commands are available on IRLM lock views with a line command area:
### Line command | Result
--- | ---
P | Stop a region
Issues the IMS `/STOP REGION` command to stop a region or regions.
You can issue the P command on a line in the ILKRGLST or ILKRSLST view to stop only the region listed on that line.

PA | Stop a region with an ABDUMP
Issues the IMS `/STOP REGION ABDUMP` command to abnormally terminate a region or regions with a dump.
You can issue the PA command on a line in the ILKRGLST or ILKRSLST view to create an ABDUMP for the region listed on that line.

U | *(Valid on the ILKSUMR view only)* Update LOCKTIME options
Use the U line command and overtype one or more of the following fields to dynamically update the LOCKTIME values:
- MSG Time
- MSG Option
- BMP Time
- BMP Option
See the online Help for more information about the field meanings and values.

---

**Note**
Line commands require implementation of the MainView AutoOPERATOR product for IMS.

---

**IRLM Ultimate Holder List view (ILKULLST)**

The IRLM Ultimate Holder List view (ILKULLST) provides a list of each ultimate holder which includes the holder jobname, status, region ID, PSB name, transaction name, and IMS ID.

You can hyperlink to the ILKULLST view from the:
- **Cnt Ult** field in the IRLM Wait With Ultimate Holder view (ILKULTWT)
- **Tot Lock** field in the Region/IMS Connect Activity view (IRGNICS)
- **Tot Lock** field in the Region Activity Summary view (IRGNSUMR)
- **Current Lock** field in the Region Activity Detail view (IRGNDTLR)
Figure 178: IRLM Ultimate Holder List view (ILKULLST)

The following hyperlinks are provided in the ILKULLST view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiters ID</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types DRGNDTLR and IRGNDTLR show what processing the region or thread has done up until now.</td>
</tr>
<tr>
<td>Ultimate ID</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types DRGNDTLR and IRGNDTLR show what processing the region or thread has done up until now.</td>
</tr>
<tr>
<td>PSB Name</td>
<td>DL/I Call Status view (IDLIST), which provides details about the last DL/I call issued by the region</td>
</tr>
</tbody>
</table>

IRLM Wait With Ultimate Holder view (ILKULTWT)

The IRLM Wait With Ultimate Holder view (ILKULTWT) provides a list of the number of ultimate regions that hold a resource, the ultimate region name, and the IMS subsystem name.
You can hyperlink to the ILKULTWT view from the:

- **Locks** field in the IMS Dashboard Overview view (IMSDSHOR)
- **Locking** field in the IMS Dashboard view (IMSDASSR)

**Figure 179: IRLM Wait With Ultimate Holder view (ILKULTWT)**

<table>
<thead>
<tr>
<th>11JUN2010 12:01:19</th>
<th>12:01:11</th>
<th>MVIMS</th>
<th>10</th>
</tr>
</thead>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rgn ID</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has done up until now.</td>
</tr>
<tr>
<td>PSB Name</td>
<td>DL/I Call Status view (IIDLST), which provides details about the last DL/I call issued by the region</td>
</tr>
<tr>
<td>Cnt Ult</td>
<td>IRLM Ultimate Holder List view (ILKULLST), which provides a list of ultimate holders</td>
</tr>
<tr>
<td>Database Name</td>
<td>IRLM Resource Wait List view (ILKRSWT), which shows the resources that regions are waiting to get locks for</td>
</tr>
</tbody>
</table>

**IRLM Region Lock List view (ILKRGLST)**

The IRLM Region Lock List view (ILKRGLST) provides a list of all locks held or waited for by all regions.

Locks held or waited for are displayed by region.

The ILKRGLST view shows:
Every resource lock:
— Held by any region
— Waited for by any region

How long the region has been:
— Waiting for the lock
— Holding the lock

You can hyperlink to the ILKRGLST view from the:

- Regions Holding option in the IMS System Menu (EZIMSS)
- Region Lock Detail option in the IRGNMR Region Menu
- Tot Lock field in the IRGNLSUMR and IRGRPGRMR region activity views
- Current Lock Detail field in the IRGNPLTR region activity view
- Status field in the Region Program Isolation Activity View (IRGNPILR)
- Holding Regions option in the IRLM Statistics Menu (ILKMS)
- Number Holders field in the ILKRRESS view
- Hold Time field in the IRKLSLST view

Figure 180: IRLM Region Lock List view (ILKRGLST)

The following hyperlinks are provided on the view:
Hyperlink from  | To access
--- | ---
Rgn ID  | Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has done up until now.
Rgn Jobname  | Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has done up until now.
Wait Time  | IRLM Resource Lock List view (ILKRSLST), where you can see all waiters and holders of a given resource
Hold Time  | IRLM Resource Lock List view (ILKRSLST), where you can see the waiters for a specific resource

**IRLM Region Lock Summary view (ILKRGSUM)**

The IRLM Region Lock Summary view (ILKRGSUM) is a high-level view that displays a list of all regions that are waiting for or holding database locks. Regions with the longest wait times are displayed first.

The view shows:

- Every region that
  - Holds a resource lock
  - Is waiting for a resource lock
- How long a region has been
  - Holding a lock
  - Waiting for a lock
- How many resource locks the region holds
- How long the longest currently held lock has been held

You can hyperlink to the ILKRGSUM view from the:

- Database Lock Waits option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISSI)
- DBCTL Operations Menu (EZDOPSR)
- Long Lock Waits option in the DBCTL Menu (DBCMP)

**Figure 181: IRLM Region Lock Summary view (ILKRGSUM)**

| 26MAR2009 | 16:19:25 | ------ | MAINVIEW WINDOW INTERFACE (V6.0.00) | --------- |
| COMMAND | ===> | SCROLL | ===> | PAGE |
| CURR WIN | ===> | 1 | ALT WIN | ===> |

> M1 =ILKRGSUM============I10X==========*========26MAR2009==16:19:25==MVIMS===D==0

- IRLM Region Lock Summary
- Related Views: Regions in IRLM Wait, Holding Regions, IRLM Statistics
- Resource Contention, Database Contention

<table>
<thead>
<tr>
<th>Rgn IMS</th>
<th>Rgn</th>
<th>MVS</th>
<th>PSB</th>
<th>Wait</th>
<th>Num</th>
<th>Longest XCF</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 X19H</td>
<td>IM81BMP1</td>
<td>BMP</td>
<td>WT-IRLM</td>
<td>SYSD</td>
<td>PTEST01</td>
<td>5.7</td>
</tr>
<tr>
<td>4 X19H</td>
<td>IM81BMP2</td>
<td>BMP</td>
<td>ACTV-USR</td>
<td>SYSD</td>
<td>PTEST02</td>
<td>1</td>
</tr>
<tr>
<td>SYS X19H</td>
<td>DLI -TCB</td>
<td>SYS</td>
<td>SYSD</td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rgn ID</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has completed up until now.</td>
</tr>
<tr>
<td>Rgn Jobname</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has completed up until now.</td>
</tr>
<tr>
<td>Wait Time</td>
<td>IRLM Resource Wait List view (ILKRWSWT), which shows the resources that regions are waiting to get locks for</td>
</tr>
<tr>
<td>Num Held</td>
<td>IRLM Resource Lock List view (ILKRSLST), which shows all waiters for and holders of a database resource</td>
</tr>
</tbody>
</table>

## IRLM Region Lock Wait List view (ILKRGWT)

The IRLM Region Lock Wait List view (ILKRGWT), provides a list of all regions that are waiting for database resource locks. Regions with the longest waits are shown at the top.

The view shows:

- Every resource lock waited for by any region
- How long any region has been waiting for any lock
The ILKRGWT view is a good starting place for analyzing lock problems. The view highlights problems and shows their extent. You can hyperlink from the view to determine the cause of a problem.

You can hyperlink to the ILKRGWT view from the:

- Regions Waiting option in the IMS System Menu (EZIMSS)
- Regions in Lock Wait option in the IMS Operations Menu (EZIOPSR) and the IMS DBA Easy Menu (EZIDBA)
- Locking Contention option in the IMS Dashboard Menu (IMSMDASH)
- Locking field in the IMS Dashboard Menu (IMSMDASH)
- Regions in IRLM Wait option in the IRLM Statistics Menu (ILKMS)
- Number Waiters field in the ILKRSSUM view

Figure 182: IRLM Region Lock Wait List view (ILKRGWT)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rgn ID</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has completed up until now.</td>
</tr>
<tr>
<td>Rgn Jobname</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has completed up until now.</td>
</tr>
<tr>
<td>Wait Time</td>
<td>IRLM Resource Lock List view (ILKRSLST), where you can see all waiting and holders of a given resource</td>
</tr>
</tbody>
</table>
IRLM Resource Lock List view (ILKRSLST)

The IRLM Resource Lock List view (ILKRSLST) shows all waiters for and holders of any database resource.

With the ILKRSLST view, you can see:

- Every resource lock held by any participant in an N-way data sharing group
- Every resource lock waited for by any participant
- How long a region has been waiting for a lock
- How long a region has been holding a lock

You can enter ILKRSLST on the COMMAND line to view a list of all resources contended for and their respective holders and waiters. If you are interested in a specific resource, you can hyperlink from the Wait Time field to see only waiters and holders for the specific resource.

You can hyperlink to the ILKRSLST view from the following views to see the waiters and holders for a selected resource only:

- Wait Time field in the ILKRGLST, ILKRGWT, and ILKRSWT views
- Num Held field in the ILKRGSUM view

Figure 183: IRLM Resource Lock List view (ILKRSLST)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Name</td>
<td>Database I/O Activity for Physical Databases (IMS Systems) view (IDAPSUMR), where you can access database I/O activity information at the level of the physical database</td>
</tr>
</tbody>
</table>
IRLM Resource Lock Summary view (ILKRSSUM)

The IRLM Resource Lock Summary view (ILKRSSUM) shows which database resources are most contended for.

Degree of contention for a given resource is measured by number of regions waiting (Number Waiters field), longest wait times (Oldest Waiter field), and average wait times (Avg Wait field).

The ILKRSSUM view shows:

- Every resource held by any participant in an N-way data sharing group
- Every resource waited for by any participant
- The number of waiters
- The number of holders

You can also see the:

- Longest wait time
- Average wait time
- Longest hold time

You can hyperlink to the ILKRSSUM view from the Database Contention option in the following menus:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wait Time</td>
<td>Another version of the IRLM Resource Lock List view (ILKRSLST), where you can see all waiters and holders for a given resource</td>
</tr>
<tr>
<td>Hold Time</td>
<td>IRLM Region Lock List view (ILKRGLST), where you can see all the resources held or waited for by a selected region. This information is especially helpful for analyzing lock problems where a region holding requested resources is itself waiting for another resource.</td>
</tr>
<tr>
<td>Rgn Jobname</td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has completed up until now.</td>
</tr>
</tbody>
</table>
The IRLM Resource Lock Wait List view (ILKRSWT) provides a complete list of resources against which regions are waiting to get locks.

With the ILKRSWT view you can see:

- Every resource lock waited for by any participant in an N-way data sharing group
- How long any region has been waiting

Use the ILKRSWT view to list of all resources that have regions waiting for them. If you are interested in a specific resource, you can hyperlink from the **Wait Time** field to see only the waiters and holders for that resource.

You can hyperlink to the ILKRSWT view from the:
- **Wait Time** field in the ILKRGSUM view or the Resource Contention option in the IMS System Menu (EZIMSS) to see the waiters and holders for a selected resource only

- Resource Contention option in the IRLM Statistics Menu (ILKMS)

- **Database Name** field in the IRLM Wait With Ultimate Holder view (ILKULTWT)

**Figure 185: IRLM Resource Lock Wait List view (ILKRSWT)**

26MAR2009 16:28:46 ------ MAINVIEW WINDOW INTERFACE (V6.0.00) ------------
COMMAND ===> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===>
> M1 =ILKRSWT==============I10X=============26MAR2009==16:28:46====MVIMS====D====0
- IRLM Resource Lock Wait List

**Related Views**
- Regions in IRLM Wait
- Holding Regions
- Database Contention
- IRLM Statistics

**Database DCB/Area RBA/Type F G Cur Wait Rgn IMS  Rgn  Rgn  Rgn  Name**

<table>
<thead>
<tr>
<th>Database Name</th>
<th>Database I/O Activity for Physical Databases (IMS Systems) view (IDAPSUMR), where you can access database I/O activity information at the level of the physical database</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wait Time</strong></td>
<td>IRLM Resource Lock List view (ILKRSLST), where you can see all waiters and holders for the selected resource</td>
</tr>
<tr>
<td><strong>Rgn Jobname</strong></td>
<td>Region/Thread Activity Detail view (DRGNDTLR) for DBT or ODB region types or Region Activity Detail view (IRGNDTLR) for all other region types. DRGNDTLR and IRGNDTLR show what processing the region or thread has completed up until now.</td>
</tr>
</tbody>
</table>

---

**IRLM Statistics view (ILKSTAT)**

The IRLM Statistics view (ILKSTAT) provides detailed information about a specific IRLM.

The view shows the IRLM lock request counts, IRLM contention counts, IRLM structure statistics and statuses, data sharing XES statistics, and IRLM storage utilization and exit calls.

You can hyperlink to the ILKSTAT view from the:

- IRLM Statistics option in the IMS System Menu (EZIMSS)
- **IRLM** field (in the working set size section) in the DBCTL Dashboard Menu (DBCMDASH)

- **Subsystem ID** field in the IRLM Subsystems view (ILKSUMR)

---

**Figure 186: IRLM Statistics view (ILKSTAT)**

![Image of IRLM Statistics view](image)

---

The following hyperlinks are provided in the ILKSTAT view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS ID</td>
<td>IRLM Statistics Menu (ILKMS), which provides access to detailed information about waiting regions, holding regions, and resource contention</td>
</tr>
<tr>
<td>IRLM SSID</td>
<td>IRLM Subsystems view (ILKSUMR), which shows all the IMS subsystems that participate in the IRLM data sharing group</td>
</tr>
<tr>
<td>IMS Jobname</td>
<td>IMS Dataset Allocation view (IMSDSNR), which displays data set names and their attributes for the control region, DLISAS, DBRC, IRLM, and PAS. You can issue the IMSDSNR command with one of the following parameters to display different data sets: CTL, DLIS, DBRC, IRLM, PAS, or jobname.</td>
</tr>
<tr>
<td>Region Waits</td>
<td>IRLM Region Lock Wait List view (ILKRGWT), which shows any resource locks the region is waiting for and how long the region has been waiting for locks</td>
</tr>
</tbody>
</table>
IRLM Subsystems view (ILKSUMR)

The IRLM Subsystems view (ILKSUMR) shows all the IMS subsystems that participate in the IRLM data sharing group.

The view also shows the state, intent, and status of each IMS subsystem.

You can hyperlink to the ILKSUMR view from the IRLM SSID field in the IRLM Statistics view (ILKSTAT).

Figure 187: IRLM Subsystem view (ILKSUMR)

No hyperlinks are available on the view.

IRLM Statistics Menu (ILKMS)

The IRLM Statistics Menu (ILKMS) provides access to detailed information about waiting regions, holding regions, and resource contention.

You can hyperlink to the menu from the:

- IMS ID field in the IRLM Statistics view (ILKSTAT)
- State field in the IRLM Subsystems view (ILKSUMR)

Figure 188: IRLM Statistics Menu (ILKMS)
Analyze latch contention

IMS uses latches to serialize task access to resources that prevent loss of control at critical times.

Use the latch views to determine the source of latch contention. You can use the views to answer the following questions:

- Is there a contention problem?
- How severe or widespread is it?
- Which regions have latch contentions?

The degree of contention is indicated in fields that show the number of regions waiting and the average wait time.

The following latch views are provided:

- “Latch Summary view (ILATCH)” on page 279
- “Latch Detail view (ILATCHD)” on page 280

Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Latch Summary view (ILATCH)

The Latch Summary view (ILATCH) shows the source of any latch contention.

The view shows statistics for the latches that are listed. The latches can be used by multiple regions.

The regions waiting for the latches are shown by their identification number in the Rgn fields if more than one region is waiting for a latch.
At the top of the view are links to related views that can help solve latch contention.

**Figure 189: Latch Summary view (ILATCH)**

<table>
<thead>
<tr>
<th>Latch Name</th>
<th>ID</th>
<th>Cnt</th>
<th>ST</th>
<th>Rgn Stat</th>
<th>PSB Name</th>
<th>Rgn1</th>
<th>Rgn2</th>
<th>Rgn3</th>
<th>Rgn4</th>
<th>Totl Cnts</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHED SUBQ</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>GENERIC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SMB HASH</td>
<td>BLKM</td>
<td>0</td>
<td>0</td>
<td>GENERIC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>STATISTICS</td>
<td>ACTL</td>
<td>0</td>
<td>0</td>
<td>GENERIC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>STG MGR</td>
<td>SMGT</td>
<td>0</td>
<td>0</td>
<td>GENERIC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TCT BLOCK</td>
<td>TCTB</td>
<td>N/A</td>
<td>0</td>
<td>GENERIC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TERMINAL</td>
<td>TERM</td>
<td>0</td>
<td>0</td>
<td>GENERIC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>USER</td>
<td>USER</td>
<td>0</td>
<td>0</td>
<td>GENERIC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Latch Detail view (ILATCHD)**

The Latch Detail view (ILATCHD) shows detailed information about a latch.

To access the view, hyperlink to it from the **Latch Name** field on the Latch Summary view (ILATCH).

**Figure 190: Latch Detail view (ILATCHD)**

<table>
<thead>
<tr>
<th>Latch ID</th>
<th>CBTS POOL</th>
<th>Cumulative Wait</th>
<th>2 Current Wait</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n/a</td>
<td>n/a Region 1</td>
<td>n/a Region 6</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>n/a</td>
<td>n/a Region 2</td>
<td>n/a Region 7</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>n/a</td>
<td>n/a Region 3</td>
<td>n/a Region 8</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>n/a</td>
<td>n/a Region 4</td>
<td>n/a Region 9</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>n/a</td>
<td>n/a Region 5</td>
<td>n/a Region 10</td>
<td>n/a</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Monitor total response time

The total response time views provide total response time data for transactions, by transaction and by LTERM.

Total response time monitoring overview

The total response time views display average input queue time, elapsed time, output queue time, and total response time for local and remote transactions, and they include MSC and message switch transactions.

Each total response time view has a real-time version and an interval version.

The following total response time views are provided:

- “Total Response Time by Transaction view (IRSPTRR)” on page 286
- “Total Response Time by LTERM view (IRSplTR)” on page 286
- “Total Response Time by Transaction and LTERM view (IRSPTRLR)” on page 287
- “Total Response Time by LTERM and Transaction view (IRSplTTR)” on page 288

**Tip**

To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Access the total response time views

You can access a filtered version of the total response time views by selecting options from the following menus:
You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering RESPONSE on the COMMAND line and then selecting a view from the list of total response time views.

For more specific information about hyperlinks to the total response time views, see the sections that describe the views.

**Transaction time reporting**

The following scenarios explain how input queue time, elapsed time, and output queue time are reported in the total response time views:

- “Remote transactions scenario” on page 282
- “MSC transactions scenario” on page 283
- “Message switch transactions scenarios” on page 284

**Remote transactions scenario**

This scenario describes how transaction time is reported in the total response time views for transactions in a shared queues environment.

1. Transaction A arrives in IMS-A, which is in a shared queues environment with IMS-B. Transaction A can be run only on IMS-B.

2. Transaction A message input is enqueued in the IMS-A shared queue.

3. IMS-B picks up the message and executes.

4. Transaction A sends an output message to the shared queue.

5. IMS-A sends the response back to the user's terminal.

The transaction is reported on IMS-A as follows:

- For a Fast Path transaction:
— Input queue time is the time the transaction spent on the BALG.

— Elapsed time is the time the transaction spent processing on IMS-B.

— Output queue time is the time the message spent on the shared queue waiting to be sent to the user.

■ For a full function transaction:

— Input queue time is the time spent queuing the message to CQS.

— Elapsed time is reported as zero. (Elapsed time is reported on IMS-B.)

— Output queue time is the time the message spent on the shared queue waiting to be dequeued by the user.

Note

If the output message is not delivered to the user’s terminal within the dead letter queue time (specified with the MSGQOQDLQ parameter in BBPARM member IMFBEX00), the output queue time is reported as DLQ time plus one second. The default value for MSGQOQDLG is 120 seconds.

For information about the BBPARM IMFBEX00 member, see the MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the MSGQOQDLQ parameter, use the IBEXSUMR view.

The transaction is reported on IMS-B as follows:

■ Input queue time is the time the message spent on the shared queue waiting for processing by IMS-B.

■ Elapsed time is the time that was spent processing the transaction. (The value is calculated by subtracting the transaction start time from the stop time.)

■ Output queue time is the time it took to queue the message to CQS.

MSC transactions scenario

This scenario describes how transaction time is reported in the total response time views for transactions in a multiple systems coupling (MSC) environment.

1 Transaction A arrives in IMS-A, and transaction A is defined to run remotely in IMS-B through MSC.

2 IMS enqueues transaction A in the IMS-A queue and sends it to IMS-B.
3 Transaction A is executed in IMS-B, and when it is done, an output message is sent back to IMS-A through the MSC link.

4 IMS-A enqueues the output message to the message queue, and the output message is delivered to the user terminal.

The transaction is reported on IMS-A as follows:

- Input queue time is the time the transaction spent waiting to be transmitted to IMS-B.
- Elapsed time is an estimate of the execution time on IMS-B. The time includes the IMS-B input queue time, the IMS-B execution time, and the IMS-B output queue time.
- Output queue time is the time the message spent in the IMS-A output queue.

**Note**

If the output message is not delivered to the user's terminal within the dead letter queue time (specified with the MSGOQDLQ parameter in BBPARM member IMFBEX00), the output queue time is reported as DLQ time plus one second. The default value for MSGOQDLG is 120 seconds.

For information about the BBPARM IMFBEX00 member, see the *MainView for IMS and MainView for DBCTL Customization Guide*. To determine the current setting of the MSGOQDLQ parameter, use the IBEXSUMR view.

The transaction is reported on IMS-B as follows:

- Input queue time is the time the transaction spent in the IMS-B input queue.
- Elapsed time is the time spent executing the transaction.
- Output queue time is the time the output message spent waiting to be transmitted to IMS-A.

**Message switch transactions scenarios**

These scenarios show how message switch transaction time is reported in the total response time views.

**Scenario 1**
1 Transaction A is issued from a user's terminal, is enqueued in the IMS-A queue, and message switches to transaction B.

2 Transaction B message switches to transaction C.

3 Transaction C sends output back to the user's terminal.

Transaction A is reported as follows:

- Input queue time is the sum of the input queue times of transactions A, B, and C.
- Elapsed time is the sum of the elapsed times of transactions A, B, and C.
- Output queue time is the amount of time the output message sent by transaction C spent in the queue.

Transactions B and C are not reported in the total response time views.

Scenario 2

1 Transaction A is issued from a user's terminal, is enqueued in the IMS-A queue, and message switches to transaction B.

2 Transaction B message switches to transaction C.

3 Transaction C does not send output back to the user's terminal.

Transaction A is reported as follows:

- Input queue time is the sum of the input queue times of transactions A, B, and C.
- Elapsed time is the sum of the elapsed times of transactions A, B, and C.
- Output queue time is zero.

Transactions B and C are not reported in the total response time views.
The Total Response Time by Transaction view (IRSPTRR) serves as a transit report for IMS transactions.

For each transaction, the view shows the average response time, input queue time, elapsed time, output queue time, and count of transactions. IRSPTRR is the real-time version of the view, and IRSPTR is the interval version of the view.

The view shows whether a transaction is local or remote, whether it is an MSC transaction, and whether it issued a message switch to another transaction. For transactions that are message switched, the view shows the average number of transactions for the switch.

You can filter the listed transactions by using the Filters fields, which limits the list based on the Tran Code field. For example, if you specify TRN* C*, the listed transactions are limited to those that start with TRN or C. A specification of * lists all transactions.

You can hyperlink to the IRSPTRR view from the Total Resp by Tran option in the IMS Easy Menu (EZIMSR) and the IMS SSI Easy Menu (EZISSIR).

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tran Code</td>
<td>Total Response Time by Transaction and LTERM view (IRSPTRLR), which displays LTERMs listed by transaction</td>
</tr>
</tbody>
</table>

The Total Response Time by LTERM view (IRSPLTR) serves as a transit report of LTERMs without transactions.
For each LTERM, the view shows the average response time, input queue time, elapsed time, output queue time, output message size, and count of transactions by LTERM. IRSPLTR is the real-time version of the view, and IRSPLT is the interval version of the view.

You can hyperlink to the IRSPLTR view from the Total Resp by LTERM option in the IMS Easy Menu (EZIMSR) and the IMS SSI Easy Menu (EZISSIR).

Figure 192: Total Response Time by LTERM view (IRSPLTR)

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTERM</td>
<td>Total Response Time by LTERM and Transaction view (IRSPLTTR), which displays IMS transactions listed by LTERM</td>
</tr>
</tbody>
</table>

Total Response Time by Transaction and LTERM view (IRSPLTR)

The Total Response Time by Transaction and LTERM view (IRSPLTR) serves as a transit report of LTERMs, listed by transaction.

For each transaction, the view shows the average response time, input queue time, elapsed time, output queue time, output message size, and count of transactions. IRSPLTR is the real-time version of the view, and IRSPLT is the interval version of the view.

The view shows whether a transaction is local or remote, whether it is an MSC transaction, and whether or not it issued a message switch to another transaction. For transactions that are message switched, the view shows the average number of transactions for the switch.
You can filter the listed transactions by using the Filters fields, which limits the list based on the Tran Code field. For example, if you specify TRN* C*, the listed transactions are limited to those that start with TRN or C. A specification of * lists all transactions.

You can hyperlink to the IRSPTRLR view from the Tran Code field in the Total Response Time by Transaction view (IRSPTRR).

**Figure 193: Total Response Time by Transaction and LTERM view (IRSPTRLR)**

<table>
<thead>
<tr>
<th>Tran Code</th>
<th>LTERM</th>
<th>Total</th>
<th>ICon</th>
<th>In Response</th>
<th>Input Q</th>
<th>Elapsed</th>
<th>Output Q</th>
<th>Rmt</th>
<th>MSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVTNO</td>
<td>TP13HL05</td>
<td>0.0282</td>
<td>0.0000</td>
<td>0.0275</td>
<td>0.0172</td>
<td>0.0103</td>
<td>0.0007</td>
<td>Lcl</td>
<td>No</td>
</tr>
<tr>
<td>IVTNV</td>
<td>TP13HL10</td>
<td>0.0090</td>
<td>0.0000</td>
<td>0.0078</td>
<td>0.0037</td>
<td>0.0040</td>
<td>0.0012</td>
<td>Lcl</td>
<td>No</td>
</tr>
<tr>
<td>THDAMNO</td>
<td>TP13HL07</td>
<td>0.2366</td>
<td>0.0000</td>
<td>0.2351</td>
<td>0.1300</td>
<td>0.1051</td>
<td>0.0015</td>
<td>Lcl</td>
<td>No</td>
</tr>
<tr>
<td>THDAMUPD</td>
<td>TP13HL08</td>
<td>0.4614</td>
<td>0.0000</td>
<td>0.4599</td>
<td>0.4516</td>
<td>0.0083</td>
<td>0.0015</td>
<td>Lcl</td>
<td>No</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tran Code</td>
<td>Transaction Overview view (ITRSUMR), which provides additional information about the selected transaction</td>
</tr>
<tr>
<td>LTERM</td>
<td>Communication Activity and Status view (IUSTAT), which displays the status and output message activity of all terminals and users</td>
</tr>
</tbody>
</table>

**Total Response Time by LTERM and Transaction view (IRSPLTTR)**

The Total Response Time by LTERM and Transaction view (IRSPLTTR) serves as a transit report for IMS transactions, listed by LTERM.

For each transaction, the view shows the average response time, input queue time, elapsed time, output queue time, output message size, and count of transactions by LTERM. IRSPLTTR is the real-time version of the view, and IRSPLTT is the interval version of the view.

The view shows whether a transaction is local or remote, whether it is an MSC transaction, and whether or not it issued a message switch to another transaction. For transactions that are message switched, the view shows the average number of transactions for the switch.
You can hyperlink to the IRSPLTTR view from the **LTERM** field in the Total Response Time by LTERM view (IRSPLTR).

**Figure 194: Total Response Time by LTERM and Transaction view (IRSPLTTR)**

<table>
<thead>
<tr>
<th>LTERM</th>
<th>Code</th>
<th>Total ICon</th>
<th>In Response</th>
<th>Input Q</th>
<th>Elapsed Output Q</th>
<th>Q</th>
<th>Cls</th>
<th>Rmt</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP13HL01 IVTN0</td>
<td>0.0092</td>
<td>0.0000</td>
<td>0.0090</td>
<td>0.0054</td>
<td>0.0033</td>
<td>0.0003</td>
<td>0001</td>
<td>Lcl</td>
</tr>
<tr>
<td>TP13HL03 IVTFM</td>
<td>0.0002</td>
<td>0.0000</td>
<td>0.0002</td>
<td>0.0000</td>
<td>0.0002</td>
<td>0.0000</td>
<td>F/P</td>
<td>Lcl</td>
</tr>
<tr>
<td>TP13HL04 IVTFD</td>
<td>0.0016</td>
<td>0.0000</td>
<td>0.0015</td>
<td>0.0000</td>
<td>0.0015</td>
<td>0.0000</td>
<td>F/P</td>
<td>Lcl</td>
</tr>
<tr>
<td>TP13HL05 IVTNV</td>
<td>0.1640</td>
<td>0.0000</td>
<td>0.1635</td>
<td>0.0123</td>
<td>0.1512</td>
<td>0.0005</td>
<td>0001</td>
<td>Lcl</td>
</tr>
<tr>
<td>TP13HL06 IMFTL1H</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td>TP13HL07 IVTN0</td>
<td>0.0090</td>
<td>0.0000</td>
<td>0.0087</td>
<td>0.0064</td>
<td>0.0033</td>
<td>0.0003</td>
<td>0001</td>
<td>Lcl</td>
</tr>
<tr>
<td>TP13HL08 IVTNV</td>
<td>0.2947</td>
<td>0.0000</td>
<td>0.2943</td>
<td>0.1616</td>
<td>0.1328</td>
<td>0.0003</td>
<td>0001</td>
<td>Lcl</td>
</tr>
<tr>
<td>TP13HL10 IVTNV</td>
<td>0.1172</td>
<td>0.0000</td>
<td>0.1165</td>
<td>0.0058</td>
<td>0.1107</td>
<td>0.0007</td>
<td>0001</td>
<td>Lcl</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTERM</td>
<td>Communication Activity and Status view (IUSTAT), which displays the status and output message activity of all terminals and users.</td>
</tr>
<tr>
<td>Tran Code</td>
<td>Transaction Overview view (ITRSUMR), which provides additional information about the selected transaction</td>
</tr>
</tbody>
</table>
Manage terminal and user status

The terminal and user status views provide information about all VTAM and non-VTAM terminals and users, both static and dynamic, across multiple IMS subsystems.

Terminal and user status management overview

Help desk operators and system programmers gain substantial advantage from the views, whether they are working with a single IMS or in a multiple-IMS environment.

The status views provide:

- Expanded information about IMS terminals and users
- Easy identification of IMS users and the transactions they are running
- A way to solve user-reported problems

<table>
<thead>
<tr>
<th>View type</th>
<th>Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal and user status views</td>
<td>“Communication Activity and Status view (IUSTAT)” on page 296</td>
</tr>
<tr>
<td></td>
<td>“Communication Activity and Status Detail view (IUDETAIL)” on page 298</td>
</tr>
<tr>
<td></td>
<td>“LTERM Status view (IULTERM)” on page 300</td>
</tr>
<tr>
<td></td>
<td>“Node Line PTERM Status view (IUNODE)” on page 301</td>
</tr>
<tr>
<td></td>
<td>“Dynamic Stopped Nodes view (IUDYSUMR)” on page 302</td>
</tr>
<tr>
<td></td>
<td>“Summarized Communication Activity and Status view (IUSTATZ)” on page 302</td>
</tr>
<tr>
<td></td>
<td>“Users LTERMs Nodes with Exceptions view (IUSEXCP)” on page 303</td>
</tr>
</tbody>
</table>
Terminal and user status views usage

The terminal and user status views help you to determine:

- The status of all terminals and users, static and dynamic, VTAM and non-VTAM, across multiple IMS subsystems
- How many messages are queued for output
- The last transaction input entered on a terminal

You can also use the views to determine why a terminal is not responsive. You can quickly access the status of a terminal by examining input/output status summaries and evaluating last transaction/LTERM information.

You can get more information by hyperlinking to a detail view that shows all the information available for a selected terminal or user.

Access information about IMS users

The terminal and user status views provide information about IMS users across multiple systems. The information includes:

- Status of each user structure and its associated resources:
  - LTERM and node names for VTAM terminals and users
  - LTERM name, line number, and physical terminal number for non-VTAM terminals and users
- Output messages enqueued to the LTERM or user
- Sign-on user ID (which can be different from user name for dynamically created terminals), if available
- Terminal type for users, static for users signed on to static terminals and dynamic for ETO users
- Timestamp of user structure creation
- Timestamp of last transaction entered

### Identify IMS users

Users are not always easy to find in a multiple-system environment.

With shared message queues, users may log on to one IMS and yet their work may be processed somewhere else. With VGR (VTAM generic resource), the users do not even know which IMS they are logged on to.

The user status views make it unnecessary to jump from IMS to IMS to find where a user is logged on. Instead, you can issue one query from any session to find out what IMS the user is logged on to. Given just the user ID or LTERM name, the views show you the name of the IMS where current and past user sessions were created.

### Solve user-reported problems

Once you find a user, the status views give you the ability to solve user problems quickly.

You can easily determine if a user-reported problem is due to:

- Work processed but not yet received by the user
  Queued messages could be waiting either from the user’s current session or from an earlier session. With the status views, you can see at a glance if unreceived messages are waiting and then take appropriate action.

- Work running but not completed
  Another common cause of a problem is that work is running but not completed. With only the user or LTERM ID to go on, you can quickly see what the last transaction was. Then you can hyperlink to the Region Activity Summary view (IRGNSUMR), where you will find all the user’s transactions. Starting in the region views, you can analyze what is delaying a transaction.
Work queued but not running

Another potential cause of a problem may be that the work is queued but not running. If you hyperlink to the region views but do not see the transaction running there, you can go to the Transaction Overview view (ITRSUMR) view to check the transaction’s status. If the transaction is stopped, you can issue a line command to start it. If it is not stopped, you can see if some needed resource is unavailable (for example, if no region is associated with the class or the priority is very low.) You can then take the action required to enable processing of the transaction.

Access the user status views

You can access a filtered version of the terminal and user (IU*) views by selecting the following menu options:

- Input/Output Status option from the IMS Easy Menu (EZIMS, EZIMSR)
- Input/Output Status option from the IMS Fast Menu (EZIFAST, EZIFASTR)
- Input/Output Status option from the IMS SSI Easy Menu (EZISSI, EZISSIR)
- Output Messages Queued option from the IMS Operations Menu (EZIOPSR)

You can access a filtered version of the user status (IUSER*) views by selecting the Active Users option from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Operations Menu (EZIOPSR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering IUSER on the COMMAND line and then selecting a view from the list of views.

For more specific information about hyperlinks to the terminal and user views, see the descriptions of the views.
SMQ in age and queue count fields

When an IMS subsystem is using shared message queues, the Age field in the terminal and user views displays a value of SMQ, indicating that the statistic is available only for local message queue environments.

If SMQ is displayed in a terminal or user view queue count field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

Line commands

The user status views help you determine the cause of terminal and user problems, and you can issue the following line commands to deal with problems:

<table>
<thead>
<tr>
<th>Linecommand</th>
<th>Result</th>
</tr>
</thead>
</table>
| SL           | Start an LTERM  
Issues the IMS /START LTERM command to start an LTERM |
| PL           | Stop an LTERM  
Issues the IMS /STOP LTERM command to stop an LTERM |
| LL           | Lock an LTERM  
Issues the IMS /LOCK LTERM command to lock an LTERM |
| UL           | Unlock an LTERM  
Issues the IMS /UNLOCK LTERM command to unlock an LTERM |
| PU           | Stop a user  
Issues the IMS /STOP USER command to stop a user |
| SU           | Start a user  
Issues the IMS /START USER command to start a user |
| SN           | Start a NODE  
Issues the IMS /START NODE command to start a NODE |
| PN           | Stop a NODE  
Issues the IMS /STOP NODE command to stop a NODE |
<table>
<thead>
<tr>
<th>Linecommand</th>
<th>Result</th>
</tr>
</thead>
</table>
| **IN**      | Idle a NODE  
Issues the IMS /IDLE command to terminate input or output for a NODE |
| **D1**      | Dequeue a single transaction  
Issues the IMS QUEUE LTERM NAME(name) OPTION(DEQ1) command, which dequeues the oldest message for the LTERM  
The node and user must be stopped before a transaction can be dequeued. This command is a Type-2 command, which requires an IMSplex environment. |
| **DA**      | Dequeue all transactions  
Issues the IMS QUEUE LTERM NAME(name) OPTION(DEQALL) command, which dequeues all of the messages queued to the LTERM  
The node and user must be stopped before the transactions can be dequeued. This command is a Type-2 command, which requires an IMSplex environment. |

**Note**
Line commands require implementation of the MainView AutoOPERATOR product for IMS.

---

**Communication Activity and Status view (IUSTAT)**

The Communication Activity and Status view (IUSTAT) summarizes the input and output status for each terminal and user as Good, Bad, or Resp. You can quickly check status by looking at the input and output status summary fields and by evaluating information in the *Last Trn/Ltrm* field.

The IUSTAT view provides the following message activity information:

- Number of messages currently enqueued to each terminal or user
- Number of messages queued for output from each terminal or user
- Age of the last message enqueued to dynamic SPQB
- Destination of the last message entered by each terminal or user

On the view you can hyperlink to information about the terminal or user and to determine the reasons for the condition. You can use line commands (see “Line commands” on page 295) on the view to solve problems indicated in the *I/P Stat* and *O/P Status* fields by a Bad, Resp-Inp, or Resp-Inp-FP status.

You can hyperlink to the IUSTAT view from the:
■ Input/Output Status option in the IMS Easy Menu (EZIMS), IMS Fast Menu (EZIFAST), and IMS SSI Easy Menu (EZISSI)

■ Output Messages option in the IMS Operations Menu (EZIOPSR)

■ **LTERM Name** field in the IUSTATZ view

■ **LTERM** field in the Total Response Time by Transaction and LTERM view (IRSPTRLR)

■ **LTERM** field in the Total Response Time by LTERM and Transaction view (IRSPLTTR)

**Note**

When an IMS subsystem is using shared message queues, the **Age** field in the IUSTAT view displays a value of SMQ, indicating that the statistic is available only for local message queue environments.

If SMQ is displayed in the **Que Cnt** field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see *MainView for IMS and MainView for DBCTL Customization Guide*. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

**Figure 195: Communication Activity and Status view (IUSTAT)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTERM Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), which shows detailed information for the selected terminal or user</td>
</tr>
<tr>
<td>Hyperlink from</td>
<td>To access</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>User Name</td>
<td>Region Activity Summary view (IRGNSUMR), which provides region information about the selected transaction</td>
</tr>
<tr>
<td>I/P Stat O/P Status</td>
<td>The reason columns in the IUSTAT view&lt;br&gt;That is, the view is scrolled to the right to the columns that indicate the reasons for the Bad or Resp statuses.</td>
</tr>
<tr>
<td>Last Trn/Ltrm</td>
<td>Transaction Overview view (ITRSUMR), where you can check the processing status of the last transaction requested by the terminal or user</td>
</tr>
</tbody>
</table>

Communication Activity and Status Detail view (IUDETAIL)

The Communication Activity and Status Detail view (IUDETAIL) provides detailed information for a selected terminal or user.

You can hyperlink to the IUDETAIL view from the:

- **User Name** field in the IUSEXCP, IUSTATZ, and ISCSUMR views
- **LTERM Name** field in the IUSTAT, IUSERI, and ISCSUMR views
- **NodeName LinePtrm** field in the IUSERI view
- **User Name** field in the
When an IMS subsystem is using shared message queues, the **Age** field in the IUDETAIL view displays a value of SMQ, indicating that the statistic is available only for local message queue environments.

If SMQ is displayed in the **Queue Count** field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see *MainView for IMS and MainView for DBCTL Customization Guide*. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>User Structure Timestamp view (IUSERT), which displays an IMS internal timestamp to indicate when the user structure was created and when the last transaction or LTERM message was enqueued</td>
</tr>
<tr>
<td>LTERM Name</td>
<td>LTERM Status view (IULTERM), which provides information about the status of the LTERM associated with a terminal or user (for LTERM queues)</td>
</tr>
</tbody>
</table>
Hyperlink from | To access
---|---
Node Name or Line/PTERM | Node Line/PTERM Status view (IUNODE), which provides information about the:
  ■ Node for VTAM terminals and users
  ■ Line number and physical terminal number for non-VTAM terminals and users
Last Trn/Ltrm | Transaction Overview view (ITRSUMR), where you can check the processing status of the last transaction requested by the terminal or user

## LTERM Status view (IULTERM)

The LTERM Status view (IULTERM) provides information about the status of the LTERMs associated with IMS terminals and users.

You can hyperlink to the IULTERM view from the:

- **Stopped LTERMs** field in the IMS Unavailable Resources view (IMSUNRSR)
- **Queue Name** field in the ISQNAMER and ISQOWNER views (for an LTERM queue)
- **Total Cnt** field in the ISQOUTR and ISQOUTAR views (for an LTERM queue)
- **LTERM name** field in the IUDETAIL view

### Figure 197: LTERM Status view (IULTERM)

<table>
<thead>
<tr>
<th>CM</th>
<th>LTERM</th>
<th>User</th>
<th>Term No</th>
<th>No</th>
<th>Purg</th>
<th>Sgnd</th>
<th>CQS</th>
<th>OTMA Que</th>
<th>NodeName</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTERM</td>
<td>User</td>
<td>Term No</td>
<td>No</td>
<td>Purg</td>
<td>Sgnd</td>
<td>CQS</td>
<td>OTMA Que</td>
<td>NodeName</td>
<td></td>
</tr>
<tr>
<td>DFSMTCTN</td>
<td>Y</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSRMCTN</td>
<td>Y</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSSTCF</td>
<td>Y</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSSTCFI</td>
<td>Y</td>
<td>DFSPMCLB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSSTCG</td>
<td>A036T117</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISC4XRF</td>
<td>Y</td>
<td>Y19H</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IVPPRT1</td>
<td>Y</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMRTRN</td>
<td>TMRTRN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMRSTN</td>
<td>TMRSTN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MASTER</td>
<td>DFSPMCLB</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCI110</td>
<td>Y</td>
<td>SYSDVTAM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCI12</td>
<td>5</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTERM Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), where you can view all information available for the selected terminal or user</td>
</tr>
</tbody>
</table>

## Node Line PTERM Status view (IUNODE)

The Node Line/PTERM Status view (IUNODE) provides information about status of the:

- Node for VTAM terminals and users
- Line number and physical terminal number for non-VTAM terminals and users

The IUNODE view is useful for diagnosing problems associated with VTAM or non-VTAM sessions.

You can hyperlink to the IUNODE view from the

- **Stopped Nodes** and **Stopped Lines** fields of the IMS Unavailable Resources view (IMSUNRNSR)
- **Node Name** or **Line/PTERM** field in the IUDETAIL view

### Figure 198: Node Line/PTERM Status view (IUNODE)

<table>
<thead>
<tr>
<th>30MAR2009 11:44:05</th>
<th>MAINVIEW WINDOW INTERFACE (V6.0.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND ===&gt;</td>
<td>SCROLL ===&gt; CSR</td>
</tr>
<tr>
<td>CURR WIN ===&gt; 1</td>
<td>ALT WIN ===&gt;</td>
</tr>
<tr>
<td>&gt;W1 -IUNODE---------</td>
<td>30MAR2009---11:44:05---MVIMS---D---466</td>
</tr>
<tr>
<td>- NodeName LinePtrm</td>
<td>Node/PTERM Status - Realtime</td>
</tr>
<tr>
<td>Related Views</td>
<td>. User Status</td>
</tr>
<tr>
<td>. Devices w/&quot;Bad&quot; Status</td>
<td>. User Information</td>
</tr>
<tr>
<td>. Input/Output Status</td>
<td>. Users in Response Mode</td>
</tr>
<tr>
<td>CMD NodeName User</td>
<td>. LTERM Status</td>
</tr>
<tr>
<td>--- LinePtrm Name</td>
<td>Stop Stop Stop With Test Response</td>
</tr>
<tr>
<td>3/1</td>
<td>Name ID ID</td>
</tr>
<tr>
<td></td>
<td>IVPSP11 192 SJSC</td>
</tr>
<tr>
<td>4/1</td>
<td>DFSTCF 192 SJSC</td>
</tr>
<tr>
<td>5/1</td>
<td>MSC12 192 SJSC</td>
</tr>
<tr>
<td>A038T100</td>
<td>MASTER 192 SJSC</td>
</tr>
<tr>
<td>CHPR0001</td>
<td>RESP-INV-FP CHPR0001 192 SJSC</td>
</tr>
<tr>
<td>CHPR0002</td>
<td>RESP-INV CHPR0002 192 SJSC</td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>NodeNameLinePtrm</td>
<td>Communication Activity and Status Detail view (IUDETAIL), where you can view all information available for the selected terminal or user</td>
</tr>
</tbody>
</table>
Dynamic Stopped Nodes view (IUDYSUMR)

The Dynamic Stopped Nodes view (IUDYSUMR) lists dynamically created nodes that are stopped. Dynamic nodes are those created by using the /DIS NODE command. Dynamic nodes are stopped by using the /STO NODE command.

Figure 199: Dynamic Stopped Nodes view (IUDYSUMR)

No hyperlinks are available on the view.

Summarized Communication Activity and Status view (IUSTATZ)

The Summarized Communication Activity and Status view (IUSTATZ) is summarized by LTERM name, and it shows the status and output message activity of all terminals and users.

Use the IUSTATZ view to manage and control terminals that are defined on a single IMS subsystem or on multiple IMS subsystems. An LTERM that is present in multiple IMS subsystems is displayed in one row of the view, and the information about the LTERM is aggregated. Line commands that are issued against the LTERM will be issued in all the IMS subsystems.

For more information about how to use the IUSTATZ view, see the section that describes the IUSTAT view in “Communication Activity and Status view (IUSTAT)” on page 296.

You can also hyperlink to the IUSTATZ view from the Users/LTERMS/Nodes option in the IMS Operations Menu (EZIOPSR).
When an IMS subsystem is using shared message queues, the **Age** field in the IUSTATZ view displays a value of SMQ, indicating that the statistic is available only for local message queue environments.

If SMQ is displayed in the **Que Cnt** field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems that are using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

For information about using the ISQQUERY parameter, see MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

For information about using the ISQQUERY parameter, see MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

<table>
<thead>
<tr>
<th>CMD</th>
<th>LTERM</th>
<th>User</th>
<th>Signon</th>
<th>NodeName</th>
<th>IMS</th>
<th>Enq</th>
<th>Due</th>
<th>I/P Stat</th>
<th>O/P Stat</th>
<th>Last Trn/Ltrm</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASTER</td>
<td>Y19H</td>
<td>29/ 1</td>
<td>DFSPMLCB</td>
<td>Y19H</td>
<td>29</td>
<td>2</td>
<td>0 Good</td>
<td>Good</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMRTRN</td>
<td>Y19H</td>
<td>30</td>
<td>0</td>
<td>0 Good</td>
<td>Bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSNS2</td>
<td>Y19H</td>
<td>10/ 2</td>
<td>0</td>
<td>0 Bad</td>
<td>Bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSNS1</td>
<td>Y19H</td>
<td>10/ 1</td>
<td>0</td>
<td>0 Bad</td>
<td>Bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSNI5</td>
<td>Y19H</td>
<td>0</td>
<td>0</td>
<td>0 Bad</td>
<td>Bad</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Users LTERM Nodes with Exceptions view (IUSEXCP)**

The Users/LTERM/Nodes with Exceptions view (IUSEXCP) shows the status and output message activity of all users, terminals, and nodes that have an exception status.

On the IUSEXCP view, you can quickly check status by looking at the **I/P Stat** and **O/P Stat** fields and by evaluating information in the Last Trn/Ltrm field, and then you can use line commands to solve problems (see “Line commands” on page 295).

For more information about how to use the IUSEXCP view, see “Communication Activity and Status view (IUSTAT)” on page 296.

You can also hyperlink to the IUSEXCP view from the User/LTERM/Node field in the IMS Operations Menu (EZIOPSR).
When an IMS subsystem is using shared message queues, the **Age** field in the IUSEXCP view displays a value of SMQ, indicating that the statistic is available only for local message queue environments.

If SMQ is displayed in the **Que Cnt** field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems that are using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see *MainView for IMS and MainView for DBCTL Customization Guide*. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTERM Name User Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), which shows detailed information for the selected terminal or user</td>
</tr>
<tr>
<td>I/P Stat O/P Stat (When the field contains Bad, Resp-Inp, or Resp-Inp-FP)</td>
<td>The reason columns in the IUSTAT view That is, the view is scrolled to the right to the columns that indicate the reasons for the Bad or Resp statuses.</td>
</tr>
<tr>
<td>Last Trn/Ltrm</td>
<td>Transaction Overview view (ITRSUMR), where you can check the processing status of the last transaction requested by the terminal or user</td>
</tr>
</tbody>
</table>

**User Information view (IUSERI)**

The User Information view (IUSERI) displays summary information about IMS users, both static and dynamic, across multiple systems.
The IUSERI view identifies all currently signed-on users. The view also reports the name of any user for whom work (input or output messages) is queued, regardless of whether that user is currently signed on, which lets you know if work is pending for that user the next time the user signs on.

The IUSERI view is a good place to start when users call in with a problem. The view:

- Identifies which IMS the user is logged on to
- Shows the user’s last transaction
- Identifies the number of output messages put into the LTERM queue, as well as the number of messages remaining (unreceived) on the queue

The information provided by the IUSERI view can help you provide quick answers when users in response mode call in with a problem.

The IUSERI view identifies the LTERM associated with each user structure and indicates whether the user structure was dynamically created. It provides the node identification for VTAM users and the line number and physical terminal number for non-VTAM users.

You can hyperlink to the IUSERI view from the:

- Active Users option in the IMS Easy Menu (EZIMS)
- IMS Fast Menu (EZIFAST)
- IMS SSI Easy Menu (EZISSI)
- IMS Operations Menu (EZIOPSR)
Note

When an IMS subsystem is using shared message queues, the Age field in the IUSERI view displays a value of SMQ, indicating that the statistic is available only for local message queue environments.

If SMQ is displayed in the Que Cnt field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

Figure 202: User Information view (IUSERI)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), which shows detailed information for the selected terminal or user</td>
</tr>
<tr>
<td>LTERM Name</td>
<td>Transaction Overview view (ITRSUMR), where you can check the processing status of the last transaction requested by the terminal or user</td>
</tr>
<tr>
<td>NodeName LinePtrm</td>
<td></td>
</tr>
<tr>
<td>Last Trn/Ltrm</td>
<td></td>
</tr>
</tbody>
</table>

User Structure Status view (IUSERS)

The User Structure Status view (IUSERS) provides information about the status of the IMS user structure.
The view shows whether a user structure is stopped, is in response mode, or has held a conversation, and it displays the number of messages queued and the last transaction entered by the user.

The IUSERS view displays the user name and sign-on ID (which can be different from the user structure name for dynamic terminals) and the name of the user's associated LTERM, node, SSI target, and operating system.

You can hyperlink to the IUSERI view from the Stopped Users field in the IMS Unavailable Resources view (IMSUNRSR).

**Note**

If SMQ is displayed in the Que Cnt field of the IUSERS view, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

**Figure 203: User Structure Status view (IUSERS)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>View Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>25APR2013</td>
<td>14:49:28</td>
<td>MAINVIEW WINDOW INTERFACE (V6.1.00)</td>
</tr>
</tbody>
</table>

**Related Views**

- Devices w/"Bad" Status
- User Information
- Input/Output Status
- Users in Response Mode
- Node Status

**CMD User Structure - Realtime**

<table>
<thead>
<tr>
<th>User Name</th>
<th>User ID</th>
<th>LTERM</th>
<th>Que Stop Conv Resp Last</th>
<th>Term</th>
<th>NodeName</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFSAPPCQ</td>
<td>DFSAPPCQ</td>
<td>DY</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>DFSOTMAQ</td>
<td>DFSOTMAQ</td>
<td>DY</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>TP13HL10</td>
<td>TP13HL10</td>
<td>YES</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I01</td>
<td>A1QAAI1A</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I01</td>
<td>A1QAO1A</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I02</td>
<td>A1QBB1IA</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I02</td>
<td>A1QBB1IA</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I03</td>
<td>A1QCC1A</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I03</td>
<td>A1QCCO1A</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I04</td>
<td>A1QDD1IA</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I04</td>
<td>A1QDDO1A</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I05</td>
<td>A1QEE1IA</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
<tr>
<td>L1WA1I05</td>
<td>A1QEO1A</td>
<td>STATIC</td>
<td></td>
<td></td>
<td>I13H</td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), which shows detailed information for a selected terminal or user</td>
</tr>
</tbody>
</table>
User Structure Timestamp view (IUSERT)

The User Structure Timestamp view (IUSERT) displays an IMS internal timestamp to indicate when the user structure was created and when the last transaction or LTERM message was enqueued.

You can hyperlink to the IUSERT view from the Age field in the IUDETAIL view.

Figure 204: User Structure Timestamp view (IUSERT)

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), which shows detailed information for a selected terminal or user</td>
</tr>
</tbody>
</table>
Manage Fast Path DEDB areas

Use the Fast Path DEDB area views to manage and control IMS data entry database (DEDB) areas.

Fast Path DEDB area management overview

With the Fast Path area views, you can access important information about each of the DEDB areas so that you can:

- Understand the impact of changing the status of a particular area
- Manage the programs and transactions that are sensitive to a DEDB area

The Fast Path DEDB area views display:

- DEDB area structure and status
- Amount of space available
- EQE information
- Extensive CI statistics, broken down by category

The following Fast Path DEDB area views are provided:

- “Fast Path DEDB Area Overview view (IFPSUMR)” on page 312
- “Fast Path DEDB Area Detail view (IFPDTLR)” on page 313
- “Fast Path DEDB Area Organization view (IFPORGR)” on page 314
- “Fast Path DEDB Area Status view (IFPSTAR)” on page 315
- “Fast Path DEDB Area Menu (IFPMR)” on page 316
Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Access the Fast Path DEDB area views

You can access a filtered version of the Fast Path DEDB area lock views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Resource Menu (EZIMSRS)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering FPAREAS on the COMMAND line and then selecting a view from the list of Fast Path DEDB area views.

For more specific information about hyperlinks to the Fast Path DEDB area views, see the sections that describe the views.

Fast Path DEDB area views commands

The Fast Path DEDB area views offer primary and line commands.

Primary command

The Fast Path DEDB area views and menus support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.
The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

Line commands

The following line commands are available on the Fast Path DEDB area views with a line command area.

**Note**

Line commands require implementation of the MainView AutoOPERATOR product for IMS.

The global versions of the commands add the Global keyword to the corresponding IMS command.

IRLM must be in use for global database command support.

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| P            | Stop an area  
Issues the IMS /STOP AREA command to stop an area. All of the area's data sets are closed.  

- P stops the area on the target IMS subsystem.  
- PG stops the area on all of the IMS subsystems sharing the database. |
| PG           |       |
| S            | Start an area  
Issues the IMS /START AREA command to start an area.  

- S starts the area on the target IMS subsystem.  
- SG starts the area on all of the IMS subsystems sharing the database. |
| SG           |       |
| SAO          | Start and open a DEDB area  
Issues the IMS /UPDATE AREA NAME(xx) START(ACCESS) OPTION(OPEN) command.  
This command opens the DEDB area data set even if the area is not registered on DBRC as PREOPEN. |
| SDO          | Start and open all areas under a DEDB  
Issues the IMS /UPDATE DB NAME(xx) START(ACCESS) OPTION(OPEN) AREA(*) command.  
This command opens the DEDB database data sets even if the database is not registered on DBRC as PREOPEN. |
<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| R            | DBR an area  
Issues the IMS /DBRECOVERY AREA command to close, deallocate, and unauthorize an area.  
- R modifies the area on the target IMS subsystem.  
- RG modifies the area on all of the IMS subsystems sharing the database. |
| RG           |        |
| N            | DBR an area with NOFEOV  
Issues the IMS /DBRECOVERY AREA NOFEOV command to close, deallocate, and unauthorize an area without forcing an OLDS switch.  
- N modifies the area on the target IMS subsystem.  
- NG modifies the area on all of the IMS subsystems sharing the database. |
| NG           |        |
| SQ           | quiesce a database  
- SQ issues the IMS UPD DB NAME() START(QUIESCE) OPTION(NOHOLD) command, which quiesces the selected database without placing a hold on the database.  
- SQH issues the IMS UPD DB NAME() START(QUIESCE) OPTION(HOLD) command, which quiesces the selected database and places a hold on the database. |
| SQH          |        |
| PQ           | Stop a database quiesce  
This command issues the IMS UPD DB NAME() STOP(QUIESCE) command, which stops the quiesce that is in progress for the selected database. |

**Fast Path DEDB Area Overview view (IFPSUMR)**

You can use the Fast Path DEDB Area Overview view to manage and control IMS DEDB areas.

You can hyperlink to the IFPSUMR view from the:

- Area option in the IMS Easy Menu (EZIMS) and IMS SSI Easy Menu (EZISSI)
- **Areas Initialized, Gen’ed, and Stopped** fields in the IMS Resource Menu (EZIMSRS)
- **Stopped Areas** field in the IMS Unavailable Resources view (IMSUNRSR)
- Filtering options in the IFPMR menu
- **Area Count** field in the IFPSTAR view

**Figure 205: Fast Path DEDB Area Overview view (IFPSUMR)**

### Related Views
- Summary by Status
- Buffer Statistics
- Hyperlink on Area Name to menu
- Areas Organization
- Issue IMS Commands

<table>
<thead>
<tr>
<th>CMD Area</th>
<th>DBD</th>
<th>Status 1</th>
<th>Status 2</th>
<th>Status 3</th>
<th>Auth</th>
<th>Acc</th>
<th>EQE</th>
<th>Non-</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSDB</td>
<td>DBFSAMD3</td>
<td>NOT-OPEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD3A</td>
<td>IVPDB3</td>
<td>NOT-OPEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFSIVD3B</td>
<td>IVPDB3</td>
<td>NOT-OPEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDGDB</td>
<td>DBFSAM05</td>
<td>NOT-OPEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Name</td>
<td>Fast Path DEDB Area Menu (IFPMR), where you can access additional information about the selected Fast Path DEDB area</td>
</tr>
<tr>
<td>DBD Name</td>
<td>Database Detail view (IDBDTLR), which provides detailed statistics about a selected IMS database</td>
</tr>
<tr>
<td>Status 1</td>
<td>Region Activity Summary view (IRGNSUMR), which provides region information about the selected transaction</td>
</tr>
</tbody>
</table>

**Fast Path DEDB Area Detail view (IFPDTLR)**

You can use the Fast Path DEDB Area Detail view (IFPDTLR) to analyze a specific IMS DEDB area.

The IFPDTLR view shows the following control interval information:

- Size of VSAM control intervals (CIs)
- Number of root segment CIs
- Number of independent overflow (IOVF) CIs defined
- Number and percent of independent overflow (IOVF) CIs available
- Number of sequential dependent space (SDEP) CIs defined
- Number and percent of sequential dependent space (SDEP) CIs available
- Number of root segment and overflow CIs per unit of work

You can hyperlink to the IFPDTLR view from the Detail option in the IFPMR menu.

**Figure 206: Fast Path DEDB Area Detail view (IFPDTLR)**

You can use the Fast Path DEDB Area Organization view (IFPORGR) to examine structure and space availability information for multiple DEDB areas.

For each area, the IFPDTLR view shows the following control interval information:

- Size of VSAM control intervals (CIs)
- Number of root segment CIs
- Number of independent overflow (IOVF) CIs defined
- Number of independent overflow (IOVF) CIs available
- Percent of independent overflow (IOVF) CIs available
- Number of sequential dependent space (SDEP) CIs defined
- Number of sequential dependent space (SDEP) CIs available
- Percent of sequential dependent space (SDEP) CIs available
- Number of root segment CIs per unit of work
- Number of overflow CIs per unit of work

You can hyperlink to the IFPORGR view from the Organization option in the IMS Resource Menu (EZIMSRS) and from the Areas Organization option in the IFPMR menu.

**Figure 207: Fast Path DEDB Area Organization view (IFPORGR)**

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Name</td>
<td>Fast Path DEDB Area Menu (IFPMR), where you can access additional information about the selected Fast Path DEDB area</td>
</tr>
</tbody>
</table>

**Fast Path DEDB Area Status view (IFPSTAR)**

You can use the Fast Path DEDB Area Status view (IFPSTAR) to examine or modify the status of Fast Path DEDB areas.

The IFPSTAR view summarizes status information for all DEDB areas in the IMS by Level 1 and Level 2 status. Level 1 status indicates whether an area is open, not open, stopped, or locked. Level 2 status indicates error or failure conditions for the area. The view provides a count of all areas with the same status.
You can hyperlink to the IFPSTAR view from the Areas by Status option in the IMS Fast Menu (EZIFAST) and from the Summarized by Status option in the IFPMR menu.

**Figure 208: Fast Path DEDB Area Status view (IFPSTAR)**

<table>
<thead>
<tr>
<th>CM</th>
<th>Area</th>
<th>IMS</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status 1</td>
<td>Status 2</td>
<td>Status 3</td>
<td>Count</td>
</tr>
<tr>
<td>NOT-OPEN</td>
<td>I10X</td>
<td>I10X</td>
<td>4</td>
</tr>
</tbody>
</table>

The following hyperlink is provided in the IFPSTAR view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Count</td>
<td>IFPSUMR view, which provides additional information about the selected areas</td>
</tr>
</tbody>
</table>

## Fast Path DEDB Area Menu (IFPMR)

The Fast Path DEDB Area Menu (IFPMR) provides quick access to Fast Path DEDB area information.

You can use the IFPMR menu to:

- Hyperlink to Fast Path area detail, organization, and status views
- Filter Fast Path area information on EQE count, read or write error, and locked or stopped status
- Hyperlink to the IMS Easy Menu (EZIMS) or IMS Fast Menu (EZIFAST)
You can hyperlink to the IFPMR menu from the **Area Name** field in the IFPSUMR and IFPORGR views.

**Figure 209: Fast Path DEDB Area Menu (IFPMR)**

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>SCROLL</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>15APR2007 14:12:09</td>
<td>MainView WINDOW INTERFACE (Vx.x.xx)</td>
<td>Fast Path DEDB Area Menu</td>
</tr>
<tr>
<td>15APR2007</td>
<td>14:12:09</td>
<td>MVIMS==D=1</td>
</tr>
</tbody>
</table>

**Fast Path DEDB Area Menu**

**Timeframe - Realtime**

- **FP Area Name** -> CUSA010
- **IMS ID** -> X17H
- **IMS Name** -> IMSxxx

<table>
<thead>
<tr>
<th>Related View</th>
<th>Filtering</th>
<th>Tools and Menus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Detail</td>
<td>EQE &gt; 0</td>
<td>IMS Easy Menu</td>
</tr>
<tr>
<td>Areas Organization</td>
<td>Read Error</td>
<td>IMS Fast Menu</td>
</tr>
<tr>
<td>Categories</td>
<td>Write Error</td>
<td>Issue IMS Commands</td>
</tr>
<tr>
<td>Summarized by Status</td>
<td>Locked</td>
<td>Return...</td>
</tr>
</tbody>
</table>

Chapter 14  Manage Fast Path DEDB areas  317
Manage databases

Use the database views to immediately access important information about each of your IMS databases, information that will help you better manage the databases and the programs and transactions that are sensitive to them.

Database management overview

With the database views, you can:

- Access detailed database information
- Summarize information by database access type or status
- Filter on EEQE (extended error queue element) count, read or write error, locked or stopped status
- Hyperlink to associated area and program information

The views show database access and organization type, authorization state, access level, local and global DMB numbers, current status, and whether the database is defined as nonrecoverable.

The following database views are provided:

- “Database Overview view (IDBSUMR)” on page 323
- “Database Detail view (IDBDTLR)” on page 325
- “Database Type Summary view (IDBTYPR)” on page 326
- “Database Status Summary view (IDBSTAR)” on page 326
- “Summarized Database Overview view (IDBSUMZ)” on page 327
- “Databases with Exceptions view (IDBEXCP)” on page 328
- “Database Menu (IDBMR)” on page 329
**Access the database views**

You can access a filtered version of the database views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Resource Menu (EZIMSRS)
- IMS Operations Menu (EZIOPSR)
- IMS DBA Easy Menu (EZIDBA)
- IMS Information Menu (IMSMINFO)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering DATABASE on the COMMAND line and then selecting a view from the list of database views.

For more specific information about hyperlinks to the database views, see the sections that describe the views.

**Database views commands**

The database views offer primary and line commands.

**Primary command**

The database views and menus support the IMSCMDS primary command.
Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

Line commands

In database views with a line command area, you can use the following line commands.

**Note**

Line commands require implementation of the MainView AutoOPERATOR product for IMS.

The global versions of the commands add the Global keyword to the corresponding IMS command.

IRLM must be in use for global database command support.

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>P, PDPG, PDG, NPA</td>
<td>Stop a database</td>
</tr>
<tr>
<td></td>
<td>This command issues the IMS /STOP DATABASE command to stop a database. The STOP command does not close the database. It prevents subsequently scheduled programs from accessing the database. Programs that were already scheduled are not affected.</td>
</tr>
<tr>
<td></td>
<td>P and PD stop the database on the target IMS subsystem.</td>
</tr>
<tr>
<td></td>
<td>PG and PDG stop the database on all IMS subsystems sharing the database.</td>
</tr>
<tr>
<td></td>
<td>NPA stops database access without unloading the randomizer. This feature prevents a reload of the randomizer into ECSA storage for subsequent START commands thus preventing ECSA fragmentation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>S, SDSG, SDG, SDA</th>
<th>Start a database</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This command issues the IMS /START DATABASE command to start a database. The START command allocates and permits access to the database. Any messages on the suspend queue, for transactions whose program has access to the database, are moved to the normal queue. If the database is registered to DBRC and requires backout or recovery, it will not be started.</td>
</tr>
<tr>
<td></td>
<td>S and SD start the database on the target IMS subsystem.</td>
</tr>
<tr>
<td></td>
<td>SG and SDG start the database on all IMS subsystems sharing the database.</td>
</tr>
<tr>
<td></td>
<td>SDA starts a DEDB database and all associated areas.</td>
</tr>
<tr>
<td>Line command</td>
<td>Result</td>
</tr>
<tr>
<td>--------------</td>
<td>--------</td>
</tr>
</tbody>
</table>
| R, RDRG, RDG | DBRecover a database  
This command issues the IMS /DBR DATABASE command. DBR closes and deallocates the database and unauthorizes it with DBRC. The command is used to prevent programs or transactions from accessing the database. After closing the database, IMS switches to the next OLDS and issues a simple checkpoint. The /DBD DATABASE will fail for any databases being accessed by a BMP or JBP.  
R and RD modify the database on the target IMS subsystem.  
RG and RDG modify the database on all IMS subsystems sharing the database. |
| N, NDNG, NDG | DBRecover a database with NOFEOV option  
This command issues the IMS /DBR DATABASE command with the NOFEOV option. The NOFEOV prevents IMS from performing an OLDS switch after completing the database recovery.  
N and ND modify the database on the target IMS subsystem.  
NG and NDG modify the database on all IMS subsystems sharing the database. |
| L, LD | Lock a database  
This command issues the IMS /LOCK DATABASE command to lock a database. The LOCK command prevents subsequently scheduled programs from accessing the database. Programs already scheduled are not affected. |
| U, UD | Unlock a database  
This command issues the IMS /UNLOCK DATABASE command to unlock a database. The UNLOCK command allows programs and transactions to access the database. |
| D, DDDG, DDG | DBDUMP a database  
This command issues the IMS /DBDUMP DATABASE, which prevents transactions or programs from updating DL/I databases. Message regions using the database will be terminated when they finish processing. The database will then be closed and reopened for input. The database dump command will fail if any BMPs or JBP are accessing the database.  
D and DD modify the database on the target IMS subsystem.  
DG and DDG modify the database on all IMS subsystems sharing the database. |
| QRY | Query a database  
This command issues the IMS QUERY DB NAME() SHOW(ALL) command and displays the IMS output from the command. This command is a Type-2 command, which requires an IMSplex environment. |
| SQ | Quiesce a database  
This command issues the IMS UPD DB NAME() START(QUIESCE) OPTION(NO HOLD) command, which quiesces the selected database without placing a hold on the database. |
| SQH | Quiesce a database  
This command issues the IMS UPD DB NAME() START(QUIESCE) OPTION(HOLD) command, which quiesces the selected database and places a hold on the database. |
<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| PQ           | Stop a database quiesce  
This command issues the IMS UPD DB NAME() STOP(QUIESCE) command, which stops the quiesce that is in progress for the selected database. |
| ARO          | Change access level for a database to Read-Only on this IMS only (ACCESS=RO)  
The selected database becomes available for read-only processing and only programs that have a PCB processing option of GO (PROCOPT=GO) can use this database.  
**Note**  
- Valid on the IDBDTLR, IDBEXCP, IDBSUMR, and IDBSUMZ views only.  
- The command takes the database offline to make the change. |
| ARD          | Change access level for a database to Read on this IMS only (ACCESS=RD)  
The selected database becomes available for read-only processing. Programs with update intent are scheduled, but they cannot update the database.  
**Note**  
- Valid on the IDBDTLR, IDBEXCP, IDBSUMR, and IDBSUMZ views only.  
- The command takes the database offline to make the change. |
| AUP          | Change access level for a database to Update on this IMS only  
The selected database is available for read and update processing.  
**Note**  
- Valid on the IDBDTLR, IDBEXCP, IDBSUMR, and IDBSUMZ views only.  
- The command takes the database offline to make the change. |
| AEX          | Change access level for a database to Exclusive  
The selected database is used exclusively by this IMS subsystem.  
**Note:** The AEX command is valid on the IDBDTLR, IDBEXCP, IDBSUMR, and IDBSUMZ views only. The command takes the database offline to make the change. The database must be registered to DBRC. |

**Database Overview view (IDBSUMR)**

You can use the Database Overview view (IDBSUMR) to manage and control IMS databases.
The IDBSUMR view displays a scrollable list of all databases in the IMS subsystems and provides database-level statistics for each of the databases.

You can hyperlink to the IDBSUMR view from the:

- Databases option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISSI)
- Databases Initialized, Gen’ed, and Stopped options in the IMS Resource Menu (EZIMSRS)
- All Databases option in the IMS DBA Easy Menu (EZIDBA)
- Filtering options in the IDBMR menu
- **Number of DB** field in the IDBSTAR view
- **Count** field in the IDBTYPR view
- **Status 1, Status 2, Auth State,** and **Acc Lvl** fields in the IDBEXCP and IDBSUMZ views
- **Physical DBNAME** field in several of the database activity views (IDA*)
- **Database** field in the cross-reference views (IX*) that include databases

**Figure 210: Database Overview view (IDBSUMR)**

<table>
<thead>
<tr>
<th>CMD</th>
<th>DBD/PART</th>
<th>IMS</th>
<th>Database</th>
<th>Status 1</th>
<th>Status 2</th>
<th>Status 3</th>
<th>Exts</th>
<th>Exts</th>
<th>State</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>Name</td>
<td>ID</td>
<td>Type</td>
<td>Org</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD801</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD802</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD803</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD804</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD805</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD806</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD807</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD808</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD809</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD810</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBFDD811</td>
<td>I10X</td>
<td>NOT-OPEN</td>
<td>NOT-INIT</td>
<td>NODMB</td>
<td>NOT-AUTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBD/PARTName</td>
<td>Database Menu (IDBMR), where you can access more information about the database you selected</td>
</tr>
<tr>
<td>Hyperlink from</td>
<td>To access</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Status 1</td>
<td>Database Overview view (IDBSUMR) view that is filtered to show all databases with the same status as the selected status</td>
</tr>
<tr>
<td>Status 2</td>
<td>Database Overview view (IDBSUMR) view that is filtered to show all databases with the same status as the selected status</td>
</tr>
<tr>
<td>Status 3</td>
<td>Database Overview view (IDBSUMR) view that is filtered to show all databases with the same status as the selected status</td>
</tr>
<tr>
<td>OSAM Exts</td>
<td>Database Data Sets Summary view (IDDSUMR), which displays OSAM, VSAM, and DEDB data set information</td>
</tr>
<tr>
<td>VSAM Exts</td>
<td>Database Data Sets Summary view (IDDSUMR), which displays OSAM, VSAM, and DEDB data set information</td>
</tr>
<tr>
<td>Auth State</td>
<td>Database Overview view (IDBSUMR) view that is filtered to show all databases with the same authorization state as the selected authorization state</td>
</tr>
<tr>
<td>Acc Lvl</td>
<td>Database Overview view (IDBSUMR) view that is filtered to show all databases with the same access level as the selected access level</td>
</tr>
</tbody>
</table>

## Database Detail view (IDBDTLR)

The Database Detail view (IDBDTLR) provides detailed statistics about a selected IMS database.

You can hyperlink to the IDBDTLR view from the Detail option in the IDBMR menu.

**Figure 211: Database Detail view (IDBDTLR)**

```
13SEP2011 13:04:39 ------ MainView WINDOW INTERFACE (V6.0.00) ----------------
COMMAND ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
W1 =IDBDTLR==========I10XIMS==*========13SEP2011==13:04:39====MVIMS====D====1
Database name............ BBFDDB01  Status 1.............. NOT-OPEN
IMS ID................... I10X      Status 2.............. NOT-INIT
IMS Job Name............. I10XIMS   Status 3.............. NODMB
Init error code....... 1E
Type.....................           Auth state............ NOT-AUTH
Organization.............           Access Level............. EXCL
NonRecoverable........... N/A       Definition Method..... MODBLKS
Resident.................. NO        Model Name......... N/A
Model Type............. N/A
Local DMB #.............. 1
Global DMB #............. Creation Time........... 11:24:23.50
EEQE Count............... Creation Date........... 13SEP2011
Cache 64-Bit............. N/A       Import Time...........
OSAM dataset extents..... Import Date...........
VSAM dataset extents..... Last Update Time.....
Last Update Date.....
Last Access Date.....
```

No hyperlinks are available on the view.
Database Type Summary view (IDBTYPR)

You can use the Database Type Summary view (IDBTYPR) to examine database access type information in a tabular format.

The IDBTYPR view summarizes databases by type of DBD access method and by IMS ID, and it provides a count of the DBDs in each access method category. (When there is no value in the Type field, the associated database has been generated but does not have a member in ACBLIB, and it has a Status 2 of NOT-INIT.)

The IDBTYPR view provides organization type, associated IMS subsystem, and several levels of information about current status.

- The value in the Status 1 field indicates whether a database is open, not open, stopped, or locked.
- The value in the Status 2 field indicates error or failure conditions for the database.
- The value in the Status 3 field provides error or warning indications, and provides additional detail if a NOT-INIT status is shown in the Status 2 field.

You can hyperlink to the IDBTYPR view from the Databases Summarized by Type option in the IMS Resource Menu (EZIMSRS) and from the Type option in the IDBMR menu.

Figure 212: Database Type Summary view (IDBTYPR)

No hyperlinks are available on the view.

Database Status Summary view (IDBSTAR)

You can use the Database Status Summary view (IDBSTAR) to examine database status information in a tabular format.
The IDBSTAR view summarizes all databases in the IMS subsystems by status and by IMS ID. It also provides a count of the databases in each status category. Summarization is by Status 1. (Status 1 indicates whether a database is open, not open, stopped, or locked. Status 2 indicates error or failure conditions for the database.)

You can hyperlink to the IDBSTAR view from the:

- Databases by Status option in the IMS Fast Menu (EZIFAST)
- Databases Summarized by Status option in the IMS Resource Menu (EZIMSRS)
- Databases by Status option in the IMS DBA Easy Menu (EZIDBA)
- Full Function Databases option in the IMS Information Menu (IMSINFOR)
- Status option in the IDBMR menu

**Figure 213: Database Status Summary view (IDBSTAR)**

<table>
<thead>
<tr>
<th>CMD</th>
<th>Number IMS</th>
<th>IMS Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>--- Status 1 Status 2 Status 3 of DB ID Name</td>
<td>234 I10X I10XIMS</td>
<td></td>
</tr>
<tr>
<td>NOT-OPEN NOT-OPEN NOT-INIT NODMB</td>
<td>158 I10X I10XIMS</td>
<td></td>
</tr>
<tr>
<td>OPENED</td>
<td>3 I10X I10XIMS</td>
<td></td>
</tr>
<tr>
<td>STOPPED</td>
<td>2 I10X I10XIMS</td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status 1</td>
<td>Database Overview view (IDBSUMR), which shows all the databases with the status you selected</td>
</tr>
<tr>
<td>Number of DB</td>
<td>Database Overview view (IDBSUMR), which shows all the databases with the status you selected</td>
</tr>
</tbody>
</table>

**Summarized Database Overview view (IDBSUMZ)**

The Summarized Database Overview view (IDBSUMZ) displays a scrollable list of all databases in the IMS subsystems and provides database-level statistics for each of the databases.
You can use the IDBSUMZ view to manage and control IMS databases that are defined on a single IMS subsystem or on multiple IMS subsystems.

A database that is present in multiple IMS subsystems is displayed in one row of the view, and the information about the database is aggregated. Commands that are issued against the database are issued in all the IMS subsystems.

You can hyperlink to the IDBSUMZ view from the Databases option in the IMS Operations Menu (EZIOPSR).

**Figure 214: Summarized Database Overview view (IDBSUMZ)**

You can use the IDBSUMZ view to manage and control IMS databases that are defined on a single IMS subsystem or on multiple IMS subsystems.

A database that is present in multiple IMS subsystems is displayed in one row of the view, and the information about the database is aggregated. Commands that are issued against the database are issued in all the IMS subsystems.

You can hyperlink to the IDBSUMZ view from the Databases option in the IMS Operations Menu (EZIOPSR).

**Databases with Exceptions view (IDBEXCP)**

The Databases with Exceptions view (IDBEXCP) shows operational IMS databases that have an exception status.

You can use the IDBEXCP view to manage and control the operational databases by issuing commands and seeing immediate results. For a database to be operational, the following criteria must be met:

- The database must be defined in the IMS gen.
- A DBDGEN must be run.
- The database must be added to the DBDLIB.
- A database DD must be added to the IMS control region (with the DFSMDA macro for dynamic allocation).
The DBD/ACB entry must be available in the active ACBLIB.

You can hyperlink to the IDBEXCP view from the:

- Databases option (under Resource Exceptions) in the DBCTL Operations Menu (EZDOPSR)
- Databases in Exception option in the DBCTL DBA Easy Menu (EZIDBA)
- Stopped DBs field in the IMS Unavailable Resources view (IMSUNRSR)

**Figure 215: Database with Exceptions view (IDBEXCP)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBD/PARTName</td>
<td>Database Menu (IDBMR), where you can access more information about the database you selected</td>
</tr>
<tr>
<td>Status 1</td>
<td>Database Overview view (IDBSUMR), filtered to show all databases with the same status as the selected status</td>
</tr>
<tr>
<td>Status 2</td>
<td>Database Overview view (IDBSUMR), filtered to show all databases with the same status as the selected status</td>
</tr>
<tr>
<td>Status 3</td>
<td>Database Overview view (IDBSUMR), filtered to show all databases with the same status as the selected status</td>
</tr>
<tr>
<td>Auth State</td>
<td>Database Overview view (IDBSUMR), filtered to show all databases with the same authorization state as the selected authorization state</td>
</tr>
<tr>
<td>Acc Lvl</td>
<td>Database Overview view (IDBSUMR), filtered to show all databases with the same access level as the selected access level</td>
</tr>
</tbody>
</table>

**Database Menu (IDBMR)**

You can use the Database Menu to quickly access information about a specific database in an IMS subsystem.
You can hyperlink to the IDBMR menu from the **DBD/PART Name** field in the IDBSUMR and IDBEXCP views.

**Figure 216: Database Menu (IDBMR)**

15APR2007 13:55:04 ------ MainView WINDOW INTERFACE (Vx.x.xx) -----------
COMMAND ===> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===>
W1 =IDBMR=============IMSxxx===*========15APR2007==13:54:59====MVIMS=====D====1

**Database Menu**

<table>
<thead>
<tr>
<th>Timeframe - Realtime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Name -&gt; DBUFSAMD3</td>
</tr>
<tr>
<td>IMS ID -&gt; H81H</td>
</tr>
<tr>
<td>IMS Name -&gt; IMSxxx</td>
</tr>
<tr>
<td>Related Resources</td>
</tr>
<tr>
<td>Filtering</td>
</tr>
<tr>
<td>Filtering</td>
</tr>
<tr>
<td>Tools and Menus</td>
</tr>
<tr>
<td>Tools and Menus</td>
</tr>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Detail</td>
</tr>
<tr>
<td>EEQE &gt; 0</td>
</tr>
<tr>
<td>IMS Easy Menu</td>
</tr>
<tr>
<td>IMS Easy Menu</td>
</tr>
<tr>
<td>Associated areas</td>
</tr>
<tr>
<td>Read Error</td>
</tr>
<tr>
<td>IMS Fast Menu</td>
</tr>
<tr>
<td>IMS Fast Menu</td>
</tr>
<tr>
<td>Associated Program</td>
</tr>
<tr>
<td>Write Error</td>
</tr>
<tr>
<td>Issue IMS Commands</td>
</tr>
<tr>
<td>Issue IMS Commands</td>
</tr>
<tr>
<td>Associated Trans</td>
</tr>
<tr>
<td>Locked</td>
</tr>
<tr>
<td>Return...</td>
</tr>
<tr>
<td>Return...</td>
</tr>
<tr>
<td>Categories</td>
</tr>
<tr>
<td>Stopped</td>
</tr>
<tr>
<td>Quiesced</td>
</tr>
<tr>
<td>Quiesced</td>
</tr>
<tr>
<td>Type</td>
</tr>
<tr>
<td>Type</td>
</tr>
<tr>
<td>Status</td>
</tr>
<tr>
<td>Status</td>
</tr>
</tbody>
</table>

330  *MainView for IMS Online User Guide*
Manage application programs

The program views determine:

- How well application programs are running
- What the impact will be if you change the status of a particular program

Application program management overview

The program views show the transactions and databases associated with each program, and they show the status of each transaction and database.

You can use the status information to assess the impact of changing a program’s status.

The program views display:

- All programs (with counts) of any given type or status
- Transactions affected if you change a program’s status
- Regions currently running a program
- Programs in exception status

The following program views are provided:

- “Program Overview view (IPGSUMR)” on page 333
- “Program Count by Type view (IPGTYPR)” on page 334
- “Program Count by Type and Status view (IPGSTAR)” on page 335
- “Summarized Program Overview view (IPGSUMZ)” on page 336
- “Programs with Exceptions view (IPGEXCP)” on page 337
Access the program views

You can access a filtered version of the program views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Resource Menu (EZIMSRS)
- IMS Operations Menu (EZIOPSR)
  DBCTL Operations Menu (EZDOPSR)
- DBCTL DBA Easy Menu (EZIDBA)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering PROGRAM on the COMMAND line and then selecting a view from the list of program views.

For more specific information about hyperlinks to the database views, see the sections that describe the views.

Program views commands

The program views offer primary and line commands.
Primary command

The program views and menus support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

Line commands

You can use the following line commands on the program views.

**Note**

Line commands require implementation of the MainView AutoOPERATOR product for IMS.

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| PPP          | Stop a program  
This command issues the IMS /STOP PROGRAM command to stop a program. |
| SSP          | Start a program  
This command issues the IMS /START PROGRAM command to start a program. |
| LLP          | Lock a program  
This command issues the IMS /LOCK PROGRAM command to lock a program. |
| UUP          | Unlock a program  
This command issues the IMS /UNLOCK PROGRAM command to unlock a program. |
| QRY          | Query a program  
This command issues the IMS QUERY PGM NAME() SHOW(ALL) command. The IMS output from this command is displayed. |

Program Overview view (IPGSUMR)

The Program Overview view is a high-level view that lists all IMS application programs by name and identifies their program type, status, and scheduling type.
For more information, view the Quick Course MainView for IMS - Transaction, Program, & DB Status.

You must have a BMC Support ID to view the Quick Course.

You can hyperlink to the IPGSUMR view from the:

- Programs option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISI)
- Programs Initialized, Gen’ed, and Stopped options in the IMS Resource Menu (EZIMSRS)
- Selection/Filtering options in the IPGMR menu
- Program Name field in the cross-reference views (IX*) that include programs

**Figure 217: Program Overview view (IPGSUMR)**

27MAR2009 08:02:33 ------ MainView WINDOW INTERFACE (V6.0.00) --------

**COMMAND** ===> SCROLL ===> PAGE

**CURR WIN** ===> 1 **ALT WIN** ===>

**W1 =IPGSUMR==---------------------I10X==--------27MAR2009=08:01:47====MVIMS====D==100**

- Program Overview

**Related Views**

- Summary by Status
- Pgm to Tran Xref
- Program Exceptions
- Summary by Type
- Pgm to DB Xref
- Issue IMS Commands

**CMD** | **Program** | **Type** | **Status** | **IMS** | **MVS** | **Sched** | **Resident** | **Dynamic**
--- | ---- | -------- | ----------- | ---- | ---- | -------- | --------- | --------
ALLPSBF1 | TP | Started | I10X | SJSC | Parallel | No | No
APPCOUT | TP | Started | I10X | SJSC | Parallel | No | No
APPC02 | TP | Started | I10X | SJSC | Parallel | No | No
APPC03 | TP | Started | I10X | SJSC | Parallel | No | No
APPC04 | TP | Started | I10X | SJSC | Parallel | No | No
APPC05 | TP | Started | I10X | SJSC | Parallel | No | No
APPC06 | TP | Started | I10X | SJSC | Parallel | No | No
CICSPSB | BMP | Not initialized | I10X | SJSC | Parallel | No | No
CIPCDDB2 | BMP | Not initialized | I10X | SJSC | Parallel | No | No
CSQDB2BP | TP | Started | I10X | SJSC | Parallel | No | No
CSQDB2P | TP | Started | I10X | SJSC | Parallel | No | No

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th><strong>Hyperlink from</strong></th>
<th><strong>To access</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name</td>
<td>Program Menu (IPGMR), where you can get quick access to views for examining and managing the selected program</td>
</tr>
</tbody>
</table>

**Program Count by Type view (IPGTYPR)**

The Program Count by Type view (IPGTYPR) provides a quick way to look at all programs of a specific type.
This view summarizes all IMS application programs by type and identifies the count of all programs in each type.

You can hyperlink to the IPGTYPR view from the Programs Summarized by Type option in the IMS Resource Menu (EZIMSRS) and from the Summarization by Type option in the IPGMR menu.

**Figure 218: Program Count by Type view (IPGTYPR)**

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>SCROLL</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curr Win</td>
<td>1</td>
<td>Alt Win</td>
</tr>
<tr>
<td>W1 = IPGTYPR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Related Views</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Overview</td>
<td>Pgm to Tran Xref</td>
<td>Program Exceptions</td>
</tr>
<tr>
<td>Summary by Status</td>
<td>Pgm to DB Xref</td>
<td>Issue IMS Commands</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CMD Type</th>
<th>IMS</th>
<th>IMS</th>
<th>MVS</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>Count</td>
<td>Name</td>
<td>ID</td>
</tr>
<tr>
<td>BMP</td>
<td>74</td>
<td>IMSxxx</td>
<td>X18H</td>
</tr>
<tr>
<td>FP N</td>
<td>66</td>
<td>IMSxxx</td>
<td>X18H</td>
</tr>
<tr>
<td>FP U</td>
<td>1</td>
<td>IMSxxx</td>
<td>X18H</td>
</tr>
<tr>
<td>TP</td>
<td>61</td>
<td>IMSxxx</td>
<td>X18H</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Program Count by Type and Status view (IPGSTAR)**

The Program Count by Type and Status view (IPGSTAR) summarizes all IMS application programs by type and status and shows the count of all programs having both the same type and status.
You can hyperlink to the IPGSTAR view from the Programs by Status option in the IMS Fast Menu (EZIFAST) and from the Programs Summarized by Status option in the IMS Resource Menu (EZIMSRS).

**Figure 219: Program Count by Type and Status view (IPGSTAR)**

<table>
<thead>
<tr>
<th>Status</th>
<th>Type</th>
<th>Count</th>
<th>ID</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not initialized</td>
<td>BMP</td>
<td>41</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Not initialized</td>
<td>BMP</td>
<td>41</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
<tr>
<td>Not initialized</td>
<td>TP</td>
<td>32</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Not initialized</td>
<td>TP</td>
<td>32</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
<tr>
<td>Not initialized</td>
<td>FP N</td>
<td>10</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Not initialized</td>
<td>FP N</td>
<td>10</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
<tr>
<td>Not initialized</td>
<td>FP N</td>
<td>10</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Not initialized</td>
<td>FP N</td>
<td>10</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
<tr>
<td>Started</td>
<td>FP N</td>
<td>4</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Started</td>
<td>FP N</td>
<td>4</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
<tr>
<td>Started</td>
<td>FP U</td>
<td>1</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Started</td>
<td>FP U</td>
<td>1</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
<tr>
<td>Started</td>
<td>BMP</td>
<td>47</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Started</td>
<td>BMP</td>
<td>47</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
<tr>
<td>Started</td>
<td>BMP</td>
<td>47</td>
<td>I9A</td>
<td>I9A410CT</td>
</tr>
<tr>
<td>Started</td>
<td>BMP</td>
<td>47</td>
<td>I9B</td>
<td>I9B410CT</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Summarized Program Overview view (IPGSUMZ)**

The Summarized Program Overview view (IPGSUMZ) lists all IMS application programs by name and identifies their type, status, and scheduling type.

You can use the IPGSUMZ view to manage and control IMS programs that are defined on a single IMS subsystem or on multiple IMS subsystems. A program that is present in multiple IMS subsystems is displayed in one row of the view, and the information about the program is aggregated. Commands that are issued against the program are issued in all the IMS subsystems.
You can hyperlink to the IPGSUMZ view from the Programs option in the DBCTL Operations Menu (EZDOPSR).

**Figure 220: Summarized Program Overview view (IPGSUMZ)**

<table>
<thead>
<tr>
<th>27MAR2009 08:06:38</th>
<th>MainView WINDOW INTERFACE (V6.0.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMAND ====&gt;</td>
<td>SCROLL ====&gt; PAGE</td>
</tr>
<tr>
<td>CURR WIN ====&gt; 1</td>
<td>ALT WIN ====&gt;</td>
</tr>
<tr>
<td>W1 =IPGSUMZ=--------I10X-------------*----------27MAR2009=08:06:38----MVIMS-----D==199</td>
<td></td>
</tr>
</tbody>
</table>

- Summarized Program View
  - Related Views
    . Summary by Status
    . Summary by Type
    . Pgm to Tran Xref
    . Program Exceptions
    . Pgm to DB Xref
    . Issue IMS Commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Program</th>
<th>IMS</th>
<th>Type</th>
<th>Status</th>
<th>MVS</th>
<th>Sched</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLPSBF1 X91H</td>
<td>TP Started</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPCOUT X91H</td>
<td>TP Started</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPCO2 X91H</td>
<td>TP Started</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPCO3 X91H</td>
<td>TP Started</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPCO4 X91H</td>
<td>TP Started</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPCO5 X91H</td>
<td>TP Started</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APPCO6 X91H</td>
<td>TP Started</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BARPSBF1 X91H</td>
<td>BMP Not initialized</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BARPSBF2 X91H</td>
<td>BMP Not initialized</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BARPSBF3 X91H</td>
<td>BMP Not initialized</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BARPSBF1 X91H</td>
<td>FP M Not initialized</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BARPSBM1 X91H</td>
<td>TP Not initialized</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BARPSBM2 X91H</td>
<td>TP Not initialized</td>
<td>SJSC</td>
<td>Parallel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlink is provided in the IPGSUMZ view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name</td>
<td>Program Overview view (IPGSUMR), filtered on all programs of the same type</td>
</tr>
</tbody>
</table>

**Programs with Exceptions view (IPGEXCP)**

The Programs with Exceptions view (IPGEXCP) lists by program name the operational IMS programs that have an exception status.

For a program to be operational, the following criteria must be met:

- The program must be defined in the IMS gen.
- The PSB must be defined and have the same name as the program.
- A PSBGEN must be run.
- An ACBGEN must be run (for the PSB/ACB entry, which is run after the DBD/ACB entry has been created).
- The PSB/ACB entry must be available in the active ACBLIB.
- Program option (under Resource Exceptions) in the IMS Operations Menu (EZIOPSR)

- **stopped DBs** field in the IMS Unavailable Resources view (IMSUNRSR)

**Figure 221: Programs with Exceptions view (IPGEXCP)**

| 27MAR2009 08:07:52 ---- MainView WINDOW INTERFACE (V6.0.00) --------------- | COMMAND ===> | SCROLL ===> PAGE |
| CURR WIN ===> 1 ALT WIN ===> | M1 -IPGEXCP--------------I10X-------------------27MAR2009==08:07:52====MVIMS====D====0 |

- **Related Views**
  - Summary by Status
  - Pgm to Tran Xref
  - Program Overview
  - Summary by Type
  - Pgm to DB Xref
  - Issue IMS Commands

<table>
<thead>
<tr>
<th>CMD</th>
<th>Program</th>
<th>Type</th>
<th>Status</th>
<th>IMS</th>
<th>MVS</th>
<th>Sched</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DFSIVP1</td>
<td>TP</td>
<td>Stopped</td>
<td>I9A</td>
<td>SJSC</td>
<td>Serial</td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name</td>
<td>Program Menu (IPGMR), where you can get quick access to views for examining and managing the selected program</td>
</tr>
</tbody>
</table>

**Program Menu (IPGMR)**

The Program Menu (IPGMR) is a good starting place for examining how application programs are running.

You can hyperlink from the menu to access statistics for managing the programs in your IMS subsystems. The IPGMR menu has options that hyperlink to views showing:

- Program information filtered by type
- Program information filtered by started status or not started status
- Program summarization by type
- Program summarization by type and status
- Transactions affected if you change a program’s status
- Regions currently running a specific program
You can hyperlink to the IPGMR menu from the **Program Name** field in the EMH Message Processing view (IBGSUMR) and from the **Program Name** field in the IPGSUMR and IPGEXCP views.

**Figure 222: Program Menu (IPGMR)**

```
27MAR2009  08:08:51  ------  MainView WINDOW INTERFACE (V6.0.00)  ------
COMMAND ===>  SCROLL ===> PAGE
CURR WIN ===> 1       ALT WIN ===>
W1 =IPGMR=-----------------I10X=----------------27MAR2009=08:08:51=IMVIMS====D====1

Program Menu
Timeframe - Realtime

Program Name -> ALLPSBF1
IMS ID -> I10X
MVS Name -> SJSC

Related Resources
- Program Details
- Regions running
- Associated databases
- Associated Trans

Selection/Filtering
- TP Only
- BMP Only
- FP N Only
- FP U Only
- Started Programs
- Not started Programs

+----------------------+   System Wide Analysis
|   Program/Tran       |   Region/Program
|     Place cursor on  |
|     menu item and    |
|     press ENTER      |

Tools and Menus
- By Type and Status
- By Type
- Issue IMS Commands
- Return...
```
Cross-reference IMS resources

You can use the cross-reference views to discover the association between databases and programs. For example, if a database is unavailable, you can easily discover the cause. The problem may be with the database or with a program that uses the database.

Cross-reference IMS resources overview

Using a preferred point of entry (database, program, or transaction), you can cross-reference resources to:

- Investigate issues such as data unavailability
- Assess the impact of actions against IMS resources
- Issue actions against a database, program, or transaction

You can use the cross-reference views to discover the association between databases, programs, and transactions. For example, if a database is unavailable, you can discover the cause. The problem may be with the database, a program that uses the database, or a transaction that the associated program processes.

With cross-reference views, you can manage programs and transactions as they relate to a database, and you can manage the database itself. Before stopping a program or taking a database offline, you can use the cross-reference views to see all:

- Transactions and programs affected by a specific database
- Databases used by a program or transaction
- Transactions that a program processes
- Messages outstanding against each transaction

The cross-reference views are designed so that you can pick a preferred point of entry. If you want to view information from a database perspective, choose an IXD*
view (D for database); if you prefer a program perspective, choose an IXP* view; and if you prefer a transaction perspective, choose an IXT* view. The following cross-reference views are provided:

- "All Records Cross-Reference view (IXRSUMR)" on page 350
- "Database Cross-Reference Summary view (IXDSUMR)" on page 351
- "Database-to-Program Cross-Reference view (IXDPSUMR)" on page 352
- "Database-to-Transaction Cross-Reference view (IXDTSUMR)" on page 354
- "Program Cross-Reference Summary view (IXPSUMR)" on page 356
- "Program-to-Database Cross-Reference view (IXPDSUMR)" on page 357
- "Program-to-Databases with Exceptions Cross-Reference view (IXPDEXCP)" on page 359
- "Program-to-Transaction Cross-Reference view (IXPTSUMR)" on page 360
- "Transaction Cross-Reference Summary view (IXTSUMR)" on page 361
- "Transaction-to-Program Cross-Reference view (IXTPSUMR)" on page 362
- "Transaction-to-Database Cross-Reference view (IXTDSUMR)" on page 363
- "Transaction-to-Databases with Exceptions Cross-Reference view (IXTDEXCP)" on page 365
- "IMS Cross-Reference Menu (EZIMSX)" on page 366

**Tip**

To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

---

**Access the cross-reference views**

You can access a filtered version of the cross-reference views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
An easy way to access the cross-reference views is from the IMS Cross-Reference Menu (EZIMSX), shown in “IMS Cross-Reference Menu (EZIMSX)” on page 366, where you can select the mode of cross-referencing you want to use.

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering XREF on the COMMAND line and then selecting a view from the list of cross-reference views. For more specific information about hyperlinks to the cross-reference views, see the sections that describe the views.

Cross-reference views commands

The cross-reference views provide an efficient tool for managing IMS resources. Use the views to determine the impact of actions you might take against databases, programs, or transactions.

Primary command

The cross-reference views and menus support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

Line commands

The line commands you can use in cross-reference views depends on the resource types shown in the view.

For example, in a view that shows database names and program names, but not transaction codes, you can successfully issue database and program line commands but not transaction line commands.

The actions you can take in the cross-reference views are described with the individual views.
Note
Line commands require implementation of the MainView AutoOPERATOR product for IMS.

Database line commands

In cross-reference views that show database names, you can use the following line commands.

Note
The global versions of the commands add the Global keyword to the corresponding IMS command.
IRLM must be in use for global database command support.

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| PD           | Stop a database
PDG           | Issues the IMS /STOP DATABASE command to stop a database. The STOP command does not close the database. It prevents subsequently scheduled programs from accessing the database. Programs that were already scheduled are not affected.
PD stops the database on the target IMS subsystem.
PDG stops the database on all IMS subsystems that share the database. |
| SD           | Start a database
SDG           | Issues the IMS /START DATABASE command to start a database. The START command allocates and permits access to the database. Any messages on the suspend queue, for transactions whose program has access to the database, are moved to the normal queue. If the database is registered to DBRC and requires backout or recovery, it will not be started.
SD starts the database on the target IMS subsystem.
SDG starts the database on all IMS subsystems that share the database. |
| RD           | DBRecover a database
RDG           | Issues the IMS /DBR DATABASE command. DBR closes and deallocates the database and unauthorizes it with DBRC. The command is used to prevent programs or transactions from accessing the database. After closing the database, IMS switches to the next OLDS and issues a simple checkpoint. The /DBD DATABASE will fail for any databases being accessed by a BMP or JBP.
RD modifies the database on the target IMS subsystem.
RDG modifies the database on all IMS subsystems that share the database. |
| ND           | DBRecover a database with the NOFEOV option
NDG           | Issues the IMS /DBR DATABASE command with the NOFEOV option. The NOFEOV prevents IMS from doing an OLDS switch after completing the database recovery.
ND modifies the database on the target IMS subsystem.
NDG modifies the database on all IMS subsystems that share the database. |
## Line command

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| LD           | Lock a database  
  Issues the IMS /LOCK DATABASE command to lock a database. The LOCK command prevents subsequently scheduled programs from accessing the database. Programs already scheduled are not affected. |
| UD           | Unlock a database  
  Issues the IMS /UNLOCK DATABASE command to unlock a database. The /UNLOCK command allows programs and transactions to access the database. |
| DD           | DBDUMP a database  
  Issues the IMS /DBDUMP DATABASE. These commands are used to prevent transactions or programs from updating DL/I databases. Message regions using the database will be terminated when they finish processing. The database will then be closed and reopened for input. The database dump command will fail if any BMPs or JBFs are accessing the database.  
  DD modifies the database on the target IMS subsystem.  
  DDG modifies the database on all IMS subsystems that share the database. |
| SQ           | Quiesce a database  
  This command issues the IMS UPD DB NAME() START(QUIESCE) OPTION(NO HOLD) command, which quiesces the selected database without placing a hold on the database. |
| SQH          | Quiesce a database  
  This command issues the IMS UPD DB NAME() START(QUIESCE) OPTION(HOLD) command, which quiesces the selected database and places a hold on the database. |
| PQ           | Stop a database quiesce  
  This command issues the IMS UPD DB NAME() STOP(QUIESCE) command, which stops the quiesce that is in progress for the selected database. |

## Program line commands

In cross-reference views that show program names, you can use the following line commands:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| PP           | Stop a program  
  Issues the IMS /STOP PROGRAM command to stop a program. |
| SP           | Start a program  
  Issues the IMS /START PROGRAM command to start a program. |
| LP           | Lock a program  
  Issues the IMS /LOCK PROGRAM command to lock a program. |
| UP           | Unlock a program  
  Issues the IMS /UNLOCK PROGRAM command to unlock a program. |
Transaction line commands

In cross-reference views that show transaction codes, you can use the following line commands:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>Stop a transaction</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /STOP TRAN command to stop the scheduling or queuing of messages that contain the transaction code.</td>
</tr>
<tr>
<td>ST</td>
<td>Start a transaction</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /START TRAN command to start the transaction. The ST command enables LTERM or other program message scheduling and queuing.</td>
</tr>
<tr>
<td>PUT</td>
<td>Purge a transaction</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /PURGE TRAN command to stop input messages that are destined for the transaction code. Transactions can still be scheduled.</td>
</tr>
<tr>
<td>PST</td>
<td>Stop transaction scheduling</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /PSTOP TRAN command to stop the scheduling of messages that contain the transaction code. The PS command prevents transaction scheduling after the limit count for the transaction code is reached. PST cannot stop Fast Path exclusive (FPE) transactions, but it can stop Fast Path potential (FPP) transactions.</td>
</tr>
<tr>
<td>LT</td>
<td>Lock a transaction</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /LOCK TRAN command to stop the scheduling of messages that contain the transaction code.</td>
</tr>
<tr>
<td>UT</td>
<td>Unlock a transaction</td>
</tr>
<tr>
<td></td>
<td>Issues the IMS /UNLOCK TRAN command to free a transaction code that was previously locked by the /LOCK TRAN command.</td>
</tr>
</tbody>
</table>

Take a database offline

If you have a database in error, you can use the IXDPSUMR view, IXDASUMR view, or the IXDTSUMR view (MainView for IMS only) to assess the impact of taking a database offline before you take any action.

First you can identify both the programs and the transactions (MainView for IMS only) that use the database. Then you can issue line commands to modify their state (if appropriate) before you take action against the database in error.
Solve a failure to take database offline

When you attempt to take a database offline, the most common reason for failure is that you have a BMP or JBP currently running against that database (DFS565I message), which causes the DBR command to fail.

With the cross-reference views, you can identify any BMP or JBP programs that are sensitive to that database and you can take actions against them. In the IXDPSUMR view, you can issue a line command to change the state of the BMP or JBP program, and then you can issue a line command to take the database offline.

Take a program offline

When you need to take an application program offline (perhaps for an online change), you can use the cross-reference views to easily identify all transactions that are affected by that program, and you can modify the state of the transactions before you take the program offline.

You can also make sure that the message queue does not contain messages for any of the transactions that are processed by the application program you are going to modify.

You can verify the status of all transactions that are processed by a given program, and you can take action against the individual transaction, the program, or both.

For example, you can start at the IXPTSUMR view, where you can see all transactions that the program processes and the transaction statuses. You can hyperlink from the IXPTSUMR Tran Code field to access the Transaction Overview view (ITRSUMR), where you can hyperlink further to see all messages that are outstanding against the transaction. Based on what you see, you may decide to allow a message to complete, or you may decide to stop the transaction and allow the backlog of messages to drain. After you return to the IXPTSUMR view, you can issue line commands to take the program offline.

Solve a program failure at startup

When a program fails at startup due to unavailable resources (an abend U3303, for example), you can use the IXPDSUMR view to easily identify the unavailable resource and take action against the resource.

The IXPDSUMR view shows whether all needed databases are available and if not, the reason why. In the IXPDSUMR view, you can issue line commands to modify the
state of databases, and then you can issue a line command to start the program in question.

For more information, view the Quick Course MainView for IMS - Transaction, Program, & DB Status.
You must have a BMC Support ID to view the Quick Course.

Control resource records

If your site has a large number of resources defined, unlimited processing of resource records for display in cross-reference views can have an unacceptable impact on your CPU and storage usage.

You can control how many records are processed for display and which records are displayed in the cross-reference views.

Limit the number of records processed

You can use the XREFLIM parameter in BBPARM member IMFBEX00 to control the number of resource records that are processed for display in the cross-reference views.

Setting an appropriate record limit with XREFLIM can prevent excessive CPU and storage usage.

The recommended XREFLIM value is 100000. The minimum value is 1000. There is no upper limit to the parameter value, but an overly large value might use excessive resources in the PAS. (If the parameter is omitted, no limit is imposed.)

When the XREFLIM processing limit is reached, processing stops before all possible records are displayed, and the following message is displayed:

Cross-reference processing limit (nnn) reached

To determine the current limit, use the IBEXSUMR view. To immediately reset the limit without performing a reset or restart, use the SETOPTS primary command on any view and specify a limit in the Cross-reference limit field.

For information about IMFBEX00, see the MainView for IMS and MainView for DBCTL Customization Guide.
Filter displayed records

You can use the Filters field in cross-reference views to control which records are displayed, within the limit imposed by the XREFLIM parameter.

The XREFFLTR parameter in BBPARM member IMFBEX00 controls whether filters are required or optional.

When filter usage is required, the first time you access one of the cross-reference views, the following message displays prompting you to specify a filter:

BBFP7126I Filters enforced, specify a pattern for the cross-reference

In the Filters field, you specify one or more values to filter the primary resource for the view. The primary resource is the first column on the view. You can specify exact names or qualified names using a trailing asterisk. Multiple values are separated by a space.

For example, on the IXDTSUMR view you want to display databases whose names start with BE or GB, or that are named DB1. You would type BE* GB* DB1 in the Filters field.

Filter settings are maintained between instances of a view and from session to session for the same user. Filters are not retained between system IPLs.

To determine the current setting of the XREFFLTR parameter use the IBEXSUMR view. To immediately change the setting without performing a reset or restart, use the SETOPTS primary command on any view and change the value in the Enforce Xref filters field.

For information about IMFBEX00, see the MainView for IMS and MainView for DBCTL Customization Guide.

Control displayed records by using view command resource parameters

You can use resource parameters in cross-reference view commands to control which records are displayed, within the limit imposed by the XREFLIM parameter.

Table 20 on page 350 shows the parameters that you can use for each of the cross-reference views and the order in which they must be specified.

For example, if you enter the following command on a COMMAND line, the only resources the IXPSUMR view will display are programs that start with PG, followed by a single character, followed by MD and any number of characters, and
transactions that start with TR. (An asterisk is the default value for omitted resource parameters.)

**IXPSUMR** PG?MD* TR* *

Table 20: Cross-reference view resource parameters

<table>
<thead>
<tr>
<th>View name</th>
<th>Parameters (in the order in which they must be specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IXRSUMR</td>
<td>program transaction database</td>
</tr>
<tr>
<td>IXDSUMR</td>
<td>database program transaction</td>
</tr>
<tr>
<td>IXDPSUMR</td>
<td>database IMSid program</td>
</tr>
<tr>
<td>IXDTSUMR</td>
<td>database IMSid transaction</td>
</tr>
<tr>
<td>IXPSUMR</td>
<td>program transaction database</td>
</tr>
<tr>
<td>IXPDSUMR</td>
<td>program IMSid database</td>
</tr>
<tr>
<td>IXPDEXCP</td>
<td>program IMSid database</td>
</tr>
<tr>
<td>IXPTSUMR</td>
<td>program IMSid transaction</td>
</tr>
<tr>
<td>IXTSUMR</td>
<td>transaction program database</td>
</tr>
<tr>
<td>IXTPSUMR</td>
<td>transaction IMSid program</td>
</tr>
<tr>
<td>IXTDSUMR</td>
<td>transaction IMSid database</td>
</tr>
<tr>
<td>IXTDEXCP</td>
<td>transaction IMSid database</td>
</tr>
</tbody>
</table>

**All Records Cross-Reference view (IXRSUMR)**

You can use the All Records Cross-Reference view when you want to see a complete cross-reference of all programs, databases, and transactions (MainView for IMS Online only) in the IMS subsystem.

IXRSUMR is an unsummarized view that contains a line entry for each program, database, or transaction (MainView for IMS Online only) association. Each line entry is a separate record.

With the IXRSUMR view, you can:

- Assess the impact of any actions you might take against a program
- Issue line commands against programs, transactions, and databases

You can hyperlink to the IXRSUMR view from the:

- **Database** field in the IXDSUMR view
- **Program Name** field in the IXPSUMR view

- *(MainView for IMS Online only)* Prog-> Tran-> Database option in the IMS DBA Easy Menu (EZIDBA)

- *(MainView for IMS Online only)* Tran Code field in the IXDTSUMR and IXTSUMR views

Figure 223: All Records Cross-Reference view (IXRSUMR)

27AUG2013  11:19:33 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) ---------------

COMMAND ===>  SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
W1 =IXRSUMR==========I13H51CT=*========27AUG2013==11:19:33====MVIMS====D==816

- All Records Cross-Reference

  Related Views
  . Pgm Xref Summary . Pgm to DB Xref . Pgm to DB Exceptions
  . DB Xref Summary . DB to Active Pgm Xref . Tran to Pgm Xref
  . Tran Xref Summary . Tran to DB Xref . Tran to DB Exceptions
  . Issue IMS Commands

  Filters: *

<table>
<thead>
<tr>
<th>CMD</th>
<th>Program</th>
<th>Tran</th>
<th>Database</th>
<th>IMS Execute</th>
<th>MVS IMSX</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>Name</td>
<td>Code</td>
<td>ID</td>
<td>IMS ID</td>
<td>Name</td>
</tr>
<tr>
<td></td>
<td>APPC02</td>
<td>APPC02</td>
<td>unavail</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP2</td>
<td>no tran</td>
<td>DBFSAMD4</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP3</td>
<td>FPSAMP1</td>
<td>DBFSAMD1</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP3</td>
<td>FPSAMP1</td>
<td>DBFSAMD1</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP3</td>
<td>FPSAMP1</td>
<td>DBFSAMD1</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP4</td>
<td>FPSAMP2</td>
<td>DBFSAMD2</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP4</td>
<td>FPSAMP2</td>
<td>DBFSAMD2</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP4</td>
<td>FPSAMP2</td>
<td>DBFSAMD2</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP4</td>
<td>FPSAMP2</td>
<td>DBFSAMD2</td>
<td>X19H</td>
<td>X19H</td>
</tr>
<tr>
<td></td>
<td>DBFSAMP4</td>
<td>FPSAMP2</td>
<td>DBFSAMD2</td>
<td>X19H</td>
<td>X19H</td>
</tr>
</tbody>
</table>

Because all records are displayed in the IXRSUMR view, the view contains no summarization and no hyperlinks.

**Database Cross-Reference Summary view (IXDSUMR)**

You can use the Database Cross-Reference Summary view (IXDSUMR) to cross-reference databases with the programs and transactions (MainView *for IMS Online only*) that use them or are associated with them.

The IXDSUMR view lists all databases, and it shows all the programs and transactions (MainView *for IMS Online only*) that are sensitive to each database. You can use the IXDSUMR view to:

- Assess the impact of any actions you might take against a database
- Issue line commands against databases, programs, and transactions
You can hyperlink to the IXDSUMR view from both of the Tran and Program options (in the Database to section and the Database Selection section) in the IMS Cross-Reference Menu (EZIMSX).

**Figure 224: Database Cross-Reference Summary view (IXDSUMR)**

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>SCROLL</th>
<th>CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURR WIN</td>
<td>1</td>
<td>ALT WIN</td>
</tr>
</tbody>
</table>

- IXDSUMR view

**30MAR2009 12:24:37 ------ MainView WINDOW INTERFACE (V6.0.00) ----------------**

- Database Cross-Ref Summary

**Related Views**
- DB to Tran Xref
- Database Overview
- All Records Summary
- DB to Pgm Xref
- Database Delays
- Issue IMS Commands
- DB to Active Pgm Xref

**Filters:** *

| CMD Database Program Tran IMS Execute MVS IMS |
|---|---|---|---|---|---|
| unavail | **Database Cross-Ref Summary** | | | | |
| BE2PCUST PTEST0** TTEST0** X19H X19H SYSC IMSxxx |
| BE3ORDER PTEST0** TTEST0** X19H X19H SYSC IMSxxx |
| BE3ORDERX PTEST0** TTEST0** X19H X19H SYSC IMSxxx |
| BE3PARTS PTEST0** TTEST0** X19H X19H SYSC IMSxxx |
| BE3PSID1 PTEST0** TTEST0** X19H X19H SYSC IMSxxx |
| CUSTHDAM | | | | |
| CUSTHIDM | | | | |
| CUSTHISM | | | | |
| CUSTINDX | | | | |
| DBFSAMD1 DBFSAMP* FPSAMP** X19H X19H SYSC IMSxxx |
| DBFSAMD2 DBFSAMP* FPSAMP** X19H X19H SYSC IMSxxx |
| DBFSAMD3 DBFSAMP* **X19H X19H SYSC IMSxxx |
| DBFSAMD4 | | | | |
| D121PART | | | | |

The following hyperlink is provided in the IXDSUMR view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database</td>
<td>All Records Cross-Reference view (IXRSUMR), which provides a complete cross-reference of all programs and databases in the IMS subsystem</td>
</tr>
</tbody>
</table>

### Database-to-Program Cross-Reference view (IXDPSUMR)

You can use the Database-to-Program Cross-Reference view (IXDPSUMR) to see useful database-to-program cross-reference information.

IXDPSUMR is a summary view that lists all databases and the programs that use them.

You can use the IXDPSUMR view to:

- Assess the impact of any actions you might take against a database
- See whether needed database and program resources are available before starting a program
• Issue line commands against databases and programs

The IXDPSUMR view is especially useful for assessing the impact of taking a database offline. The view provides extensive information about each program associated with a database.

You can hyperlink to the IXDPSUMR view from the:

• Program with Status options (in the Database to section and the Database Selection section) in the IMS Cross-Reference Menu (EZIMSX)

• Programs/Databases and Databases/Programs options in the IMS Easy Menu (EZIMS), the IMS Fast Menu (EZIFAST), and the IMS SSI Easy Menu (EZISSI)

• DB-> Program option in the DBCTL DBA Easy Menu (EZIDBA)

• Associated Program option in the Database Menu (IDBMR)

Figure 225: Database-to-Program Cross-Reference view (IXDPSUMR)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database</td>
<td>Database Overview view (IDBSUMR), which provides additional information about the selected database</td>
</tr>
<tr>
<td>Program Name</td>
<td>Program Overview view (IPGSUMR), which provides additional information about the selected program</td>
</tr>
</tbody>
</table>
Database-to-Active Program Cross-Reference view (IXDASUMR)

The Database-to-Active Program Cross-Reference view (IXDASUMR) lists all databases with active programs that are currently using the databases. The associated transactions are also listed.

The IXDASUMR view is useful to determine which programs are currently using databases before taking a database offline.

The IXDPSUMR view is especially useful for assessing the impact of taking a database offline. The view provides information about each program associated with a database.

You can hyperlink to the IXDPSUMR view from the DB-> Active Program option in the DBCTL DBA Easy Menu (EZIDBA).

Figure 226: Database-to-Active Program Cross-Reference view (IXDASUMR)

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name</td>
<td>Region Activity Summary view (IRGNSUMR), which provides region information about the selected transaction</td>
</tr>
</tbody>
</table>

Database-to-Transaction Cross-Reference view (IXDTSUMR)

You can use the Database-to-Transaction Cross-Reference view (IXDTSUMR) to see database-to-transaction cross-reference information.

IXDTSUMR is a summary view that lists all databases and the transactions associated with them.
You can use the IXDTSUMR view to:

- Assess the impact of any actions you might take against a database
- Issue line commands against databases and transactions
- Hyperlink to the Class Activity view (ICLSUMR), where you can see processing class information for a transaction
- Hyperlink to Region Activity Summary view (IRGNSUMR), where you can see region information for a transaction

The IXDTSUMR view is especially useful for assessing the impact of taking a database offline. You can easily see the transactions associated with the database and all messages outstanding against the transactions. Based on what you see, you may decide to allow a message to complete, or you may decide to stop the transaction and allow the backlog of messages to drain before you issue a command against the database.

You can hyperlink to the IXDTSUMR view from the:

- Tran with Status options (in the Database to section and the Database Selection section) in the IMS Cross-Reference Menu (EZIMSX)
- Databases/Transactions option in the IMS Easy Menu (EZIMS), the IMS Fast Menu (EZIFAST), and the IMS SSI Easy Menu (EZISSI)
- DB-> Transaction option in the IMS DBA Easy Menu (EZIDBA)
- Associated Trans option in the Database Menu (IDBMR)

The following hyperlinks are provided on the view:
You can use the Program Cross-Reference Summary view (IXPSUMR) to cross-reference programs and their associated databases and transactions (MainView for IMS Online only).

The IXPSUMR view lists all databases and transactions (MainView for IMS Online only) associated with all programs. You can use the view to:

- Assess the impact of any actions you might take against a program
- Issue line commands against programs, transactions, and databases
You can hyperlink to the IXPSUMR view from both the Database and Tran options (in the Program to section and the Program Selection section) in the IMS Cross-Reference Menu (EZIMSX).

**Figure 228: Program Cross-Reference Summary view (IXPSUMR)**

The following hyperlink is provided in the IXPSUMR view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name</td>
<td>All Records Cross-Reference view (IXRSUMR), where you can see a complete cross-reference of all programs and databases in the IMS subsystem</td>
</tr>
</tbody>
</table>

**Program-to-Database Cross-Reference view (IXPDSUMR)**

The Program-to-Database Cross-Reference view (IXPDSUMR) lists all programs, the databases they are sensitive to, and the status of the databases.

You can use the IXPDSUMR view to:

- Determine whether needed program and database resources are available before you start a program
- Issue line commands against programs and databases

If you want to check on resource availability for a particular program, you can hyperlink from the IXPDSUMR Database field to access a filtered version of the
Database Overview view (IDBSUMR), which shows the status of all databases the program is sensitive to.

For more information, view the Quick Course MainView for IMS - Transaction, Program, & DB Status.
You must have a BMC Support ID to view the Quick Course.

You can hyperlink to the IXPDSUMR view from the:

- Database with Status options (in the Program to section and the Program Selection section) in the IMS Cross-Reference Menu (EZIMSX)
- Programs/Databases option in the IMS Easy Menu (EZIMS), the IMS Fast Menu (EZIFAST), and the IMS SSI Easy Menu (EZISSI)
- Prog-> Database option in the DBCTL DBA Easy Menu (EZIDBA)
- Associated Databases option in the Program Menu (IPGMR)

**Figure 229: Program-to-Database Cross-Reference view (IXPDSUMR)**

<p>| 30MAR2009 12:29:51 ------ MainView WINDOW INTERFACE (V6.0.00) ----------- |
| COMMAND ===&gt; | SCROLL ===&gt; CSR |
| CURR WIN ===&gt; 1 | ALT WIN ===&gt; |
| &gt;W1 -IXPDSUMR-----------I10X----------30MAR2009==12:29:51==MVIMS==D==759 |
| Related Views  |
| . Pgm to Tran Xref . Program Overview . Pgm to DB Exceptions |
| . Pgm Xref Summary . Program Exceptions . Issue IMS Commands |</p>
<table>
<thead>
<tr>
<th>CMD</th>
<th>Program Name</th>
<th>IMS ID</th>
<th>Status</th>
<th>Type</th>
<th>Org</th>
<th>Status 1</th>
<th>Status 2</th>
<th>Auth</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBFSAMP1 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBFSAMP2 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBFSAMP3 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBFSAMP4 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBFSAMP5 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBFSAMP6 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFHSAM02 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFHSAM03 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFHSAM04 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFHSAM05 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DFHSAM06 X19H Started</td>
<td>DBFSAM03 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name</td>
<td>Program Overview view (IPGSUMR), which provides additional information about the selected program</td>
</tr>
<tr>
<td>Database</td>
<td>Database Overview view (IDBSUMR), which provides additional information about the selected database</td>
</tr>
</tbody>
</table>
Program-to-Databases with Exceptions Cross-Reference view (IXPDEXCP)

The Program-to-Databases with Exceptions Cross-Reference view (IXPDEXCP) provides program-to-database cross-reference information for operational databases that have an exception status.

For a database to be operational, the following criteria must be met:

- The database must be defined in the IMS gen.
- A DBDGEN must be run.
- The database must be added to the DBDLIB.
- A database DD must be added to the IMS control region (with the DFSMDA macro for dynamic allocation).
- The DBD/ACB entry must be available in the active ACBLIB.

You can use the IXPDEXCP view to issue line commands against programs and databases.

You can hyperlink to the IXPDEXCP view from the Prog-> DBs in Exception field in the DBCTL DBA Easy Menu (EZIDBA).

Figure 230: Program-to-Databases with Exceptions Cross-Reference view (IXPDEXCP)

The following hyperlinks are provided in the IXPDEXCP view:
Program-to-Transaction Cross-Reference view (IXPTSUMR)

The Program-to-Transaction Cross-Reference view provides program-to-transaction cross-reference information.

The IXPTSUMR is a summary view that lists all programs and the transactions they are running and provides information about each transaction.

You can use the IXPTSUMR view to:

- Assess the impact of any actions you might take against a program
- Issue line commands against programs and transactions

If you need to take action against a program, you can hyperlink from the IXPTSUMR Tran Code field to access to the Transaction Overview view (ITRSUMR), which shows all transactions the program processes. You can hyperlink from the ITRSUMR view to see all messages outstanding against the transaction. Based on what you see, you may decide to allow a message to complete, or you may decide to stop the transaction and allow the backlog of messages to drain.

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Name</td>
<td>Program Overview view (IPGSUMR), which provides additional information about the selected program</td>
</tr>
<tr>
<td>Database</td>
<td>Database Overview view (IDBSUMR), which provides additional information about the selected database</td>
</tr>
</tbody>
</table>
You can hyperlink to the IXPTSUMR view from the Tran with Status options (in the Program to section and the Program Selection section) in the IMS Cross-Reference Menu (EZIMSX).

**Figure 231: Program-to-Transaction Cross-Reference view (IXPTSUMR)**

![Program-to-Transaction Cross-Reference view (IXPTSUMR)](image)

No hyperlinks are available on the view.

**Transaction Cross-Reference Summary view (IXTSUMR)**

You can use the Transaction Cross-Reference Summary view (IXTSUMR) to cross-reference transactions with their associated programs and databases.

With the IXTSUMR view, you can:

- Assess the impact of any actions you might take against a transaction
- Troubleshoot problems with a transaction
- Issue line commands against transactions, programs, and databases

For example, if a transaction is not running, you can use this view to find out why, and you can hyperlink from the Database and Program Name fields to see if a database or program the transaction needs is unavailable.
You can hyperlink to the IXTSUMR view from the Database and Program options (in the Transaction to section and the Transaction Selection section) in the IMS Cross-Reference Menu (EZIMSX).

Figure 232: Transaction Cross-Reference Summary view (IXTSUMR)

No hyperlinks are available on the view.

Transaction-to-Program Cross-Reference view (IXTPSUMR)

The Transaction-to-Program Cross-Reference view (IXTPSUMR) lists all transactions with their associated programs.

You can use the IXTPSUMR view to:

- See all the IMS subsystems where your transactions are defined and where they are defined to execute (different for remote locations)
- See whether needed program resources are available before starting a program
- Issue line commands against transactions and programs

You can hyperlink to the IXTPSUMR view from the:

- Program with Status options (in the Transaction to section and the Transaction Selection section) in the IMS Cross-Reference Menu (EZIMSX)
- Transactions/Programs option in the IMS Easy Menu (EZIMS), the IMS Fast Menu (EZIFAST), and the IMS SSI Easy Menu (EZISSI)
Associated Programs option in the Transaction Menu (ITRMSR)

Figure 233: Transaction-to-Program Cross-Reference view (IXTPSUMR)

The Transaction-to-Program Cross-Reference view (IXTPSUMR) provides cross-reference information that can help you pinpoint problems with resource availability.

With the IXTDSUMR view, you can:

- See if database resources that a transaction needs to run are available
- Determine why resources are not available
- Issue line commands against transactions and databases

You can hyperlink to the IXTDSUMR view from the:

- Database with Status options (in the Transaction to section and the Transaction Selection section) in the IMS Cross-Reference Menu (EZIMSX)
- Tran-> Database option in the IMS DBA Easy Menu (EZIDBA)
- Associated Databases option in the Transaction Menu (ITRMSR)

Figure 234: Transaction-to-Database Cross-Reference view (IXTDSUMR)

| 30MAR2009 12:35:30 ----- MainView WINDOW INTERFACE (V6.0.00) ----------- |
| COMMAND ===> SCROLL ===> CSR |
| CURR WIN ===> 1 ALT WIN ===> |
| >W1 =IXTDSUMR=I10X=*=30MAR2009==12:35:30====MVIMS====D==498 |

| Related Views |
| Tran to Pgm Xref | Transaction Overview | Tran to DB Exceptions |
| DB to Tran Xref | Transaction Exceptions | Issue IMS Commands |

| Filters: * |

<table>
<thead>
<tr>
<th>CMD</th>
<th>Tran</th>
<th>IMS</th>
<th>Tran</th>
<th>Exec</th>
<th>Database</th>
<th>TYPE</th>
<th>ORG</th>
<th>STATUS 1</th>
<th>STATUS 2</th>
<th>AUTH</th>
<th>STATE--</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>Code</td>
<td>ID</td>
<td>Status</td>
<td>IMSID</td>
<td>----</td>
<td>--------</td>
<td>-----</td>
<td>--------</td>
<td>--------</td>
<td>-----</td>
<td>--------</td>
</tr>
<tr>
<td>ADDINV</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADDPART</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLOSE</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DISBURSE</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLETINV</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DLETPART</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSPALLI</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSPINV</td>
<td>X19H</td>
<td>X19H</td>
<td>DI21PART</td>
<td>NOT-OPEN</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPSAMP1</td>
<td>X19H</td>
<td>X19H</td>
<td>DBFSAMD4</td>
<td>OPENED</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPSAMP2</td>
<td>X19H</td>
<td>X19H</td>
<td>DBFSAMD1 MSDB</td>
<td>OPENED</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPSAMP2</td>
<td>X19H</td>
<td>X19H</td>
<td>DBFSAMD2 MSDB</td>
<td>OPENED</td>
<td>NOT-AUT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FPSAMP2</td>
<td>X19H</td>
<td>X19H</td>
<td>DBFSAMD1 DEDB VSAM</td>
<td>NOT-OPEN</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tran Code</td>
<td>Transaction Overview view (ITRSUMR), which provides additional information about the selected transaction</td>
</tr>
<tr>
<td>Tran Status</td>
<td>Transaction Overview view (ITRSUMR), which provides additional information about the selected transaction</td>
</tr>
<tr>
<td>Database</td>
<td>Database Overview view (IDBSUMR), which provides additional information about the selected database</td>
</tr>
</tbody>
</table>
The Transaction-to-Databases with Exceptions Cross-Reference view (IXTDEXCP), shown in provides transaction-to-database cross-reference information for databases that have an exception status.

For a database to be operational, the following criteria must be met:

- The database must be defined in the IMS gen.
- A DBDGEN must be run.
- The database must be added to the DBDLIB.
- A database DD must be added to the IMS control region (with the DFSMDA macro for dynamic allocation).
- The DBD/ACB entry must be available in the active ACBLIB.

You can use the IXTDEXCP view to issue line commands against transactions and databases.

You can hyperlink to the IXTDEXCP view from the Tran-> DBs in Exception field in the IMS DBA Easy Menu (EZIDBA).

Figure 235: Transaction-to-Databases with Exceptions Cross-Reference view (IXTDEXCP)

No hyperlinks are available on the view.
IMS Cross-Reference Menu (EZIMSX)

The IMS Cross-Reference Menu (EZIMSX) provides easy access to views that you can use to cross reference IMS resources.

The EZIMSX menu also provides direct access to other menus and utilities where you can change targets and timeframes.

You can hyperlink to the EZIMSX menu from the:

- Cross-Reference Menu option in the IMS Fast Menu (EZIFAST)
- Cross-Reference Menu option in the DBCTL Fast Menu (EZIFAST)
- Cross Reference option in the DBCTL Menu (DBCMP)

Figure 236: IMS Cross-Reference Menu (EZIMSX)

27AUG2013  11:38:21 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) ---------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===> W1 =EZIMSX============I13H51CT=*========27AUG2013==11:38:21====MVIMS====D====1
IMS Cross-Reference Menu
IMS ID ---> I13H51CT
Transaction to . Program and Database
. Database
. Program
Transaction Selection
> Database and Program
> Database
> Program
Place cursor on menu item and press ENTER
Database to . Program and Tran
. Tran
. Program
Program to . Tran and Database
. Database
. Tran
Program Selection
> Tran and Database
> Database
> Tran
Database Selection
> Program and Tran
> Tran
. Program
Tools and Menus
> Utilities
> IMS Easy Menu
> IMS Classic Menu
> IMS SSI Easy Menu
. Return...
Monitor OTMA clients and servers

Use the Open Transaction Manager Access (OTMA) views to examine the topology and status of IMS OTMA clients and servers and the transactions they are running.

OTMA clients and servers monitoring overview

You can use the OTMA views to quickly answer the following questions:

- Which clients (WebSphere MQ, TCP/IP, and so on) are associated with which server?
- Which clients are ready to send and receive transaction messages?
- Which transactions are the IMS servers currently processing?
- Which resources are being used?

The OTMA summary and detail views provide a system-wide overview. The views provide status and details about IMS OTMA clients, servers, transactions, and resources, as well as information about

- Connection status
- XCF status
- Conversations
- Number of tpipes
- Number of messages enqueued
- Tpipe transaction
- Transaction origin
Note
Relevant OTMA-related information (such as tpipe name) is also displayed in other views of the MainView for IMS product, such as the regions and trace views. You may want to use the information collected in those views as part of your analysis.

The following OTMA views are provided:

- “OTMA Client and Server Summary view (IOTMASUM)” on page 371
- “OTMA Client and Server Detail view (IOTMADTL)” on page 372
- “OTMA Messages view (IOTMATRN)” on page 373
- “OTMA Message Detail view (IOTMDTLR)” on page 374
- “OTMA Output Summary view (IOTMAOUT)” on page 375
- “OTMA Group Tpipe Summary view (ITPIPSUM)” on page 376
- “OTMA Tpipe Detail view (ITPIPDTL)” on page 377
- “OTMA Tpipe Message Summary view (ITPIPTRN)” on page 377

Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Access the OTMA views

You can access a filtered version of the OTMA views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS Resource Menu (EZIMSRS)

For more specific information about hyperlinks to the OTMA views, see the view descriptions.
OTMA views commands

The OTMA views offer primary and line commands.

Primary command

The OTMA views and menus support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

IOTMASUM view line commands

You can enter the following line commands on the IOTMASUM view:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| PO           | Stop OTMA (on a server line only)  
              | Issues the IMS /STOP OTMA command against a server. |
| SO           | Start OTMA (on a server line only)  
              | Issues the IMS /START OTMA command against a server. |
| SE           | Secure OTMA (on a server line only)  
              | Issues the IMS /SECURE OTMA command against a server. You can use the command to change the RACF security level for input from OTMA clients.  
              | To change the security level, scroll right to display the **Security Level** field, type **SE** in the line command area on the server line, and overtype the value in the field with one of the RACF security levels (none, check, full, profile).  
              | If you are using IMS 9.1 or later, you can issue the REFRESH command in the **Security Level** field to cause OTMA to cache the ACEE for user IDs to reduce the amount of RACF I/O. As a result, a refresh for the cached ACEE is required after the RACF database is updated. |
| PT           | Stop TMEM *tmember* TPIPE ALL (on a client line only)  
              | Issues the IMS /STOP TMEM *tmembername* TPIPE ALL command against a client. |
| ST           | Start TMEM *tmember* TPIPE ALL (on a client line only)  
              | Issues the IMS /START TMEM *tmembername* TPIPE ALL command against a client. |
ITPIPSUM view line commands

You can enter the following line commands on the ITPIPSUM view:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| PP           | Stop TMEM *tmember* TPIPE *tpipe*  
Issues the IMS /STOP TMEM *tmembername* TPIPE *tpipename* command against a tpipe. |
| SP           | Start TMEM *tmember* TPIPE *tpipe*  
Issues the IMS /START TMEM *tmembername* TPIPE *tpipename* command against a tpipe. |
| DQ           | Dequeue TMEM *tmember* TPIPE *tpipe* PURGE  
Issues the IMS /DEQUEUE TMEM *tmembername* TPIPE *tpipename* PURGE command against a tpipe. |

IOTMDSUM and IOTMDDTL views line commands

You can enter the following line commands on the IOTMDSUM and IOTMDDTL views:

Note
These commands are IMS Type-2 commands and are valid only when the target IMS is in an IMSplex.

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Creates an OTMA destination descriptor.</td>
</tr>
<tr>
<td>D</td>
<td>Deletes an OTMA destination descriptor.</td>
</tr>
<tr>
<td>U</td>
<td>Updates an OTMA destination descriptor.</td>
</tr>
</tbody>
</table>
The OTMA Client and Server Summary view (IOTMASUM) is a good starting place for examining the status of clients and servers and the transactions they are running.

The IOTMASUM view displays information about every OTMA server and its clients, and, for each member, it shows OTMA connection status, XCF status, and number of tpipes, messages enqueued, and conversations.

You can hyperlink to the IOTMASUM view from the:

- OTMA option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISSI)
- OTMA Summary option in the IMS Fast Menu (EZIFAST)
- OTMA Overview option in the IMS Resource Menu (EZIMSRS)
- OTMA field in the IMS Dashboard view (IMSDASHR) and the OTMA option in the IMS Dashboard Menu (IMSMDASH)

For more information, view the Quick Course MainView for IMS - Dashboard.
You must have a BMC Support ID to view the Quick Course.
**Note**

If SMQ is displayed in the **Out** **Msgs** field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about the ISQQUERY parameter, see *MainView for IMS and MainView for DBCTL Customization Guide*. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

Figure 237: OTMA Client and Server Summary view (IOTMASUM)

```plaintext
25JUL2013 13:15:28 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) ----------
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =IOTMASUM=12G1CT=*==25JUL2013==13:15:28==MVIMS===D==2
 . OTMA Overview
  Related Views
   . RGN Activity for OTMA
   . RGN Activity for IMS Connect
   . IMS Connect Overview

CM OTMA
   - Member Name       Type Server           Connection Status     In   Out  Num Tpips
     OTMA112G     Srvr *                Enabled                  0    0     0
     C001         Clnt OTMA112G           Accepting MSG traffic    0    0     0
```

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTMA Member Name</td>
<td>OTMA Client and Server Detail view (IOTMADTL), which displays detailed information about an OTMA server or client</td>
</tr>
<tr>
<td>Type</td>
<td>If the value is ICON (IMS Connect clients), Region/IMS Connect Activity view (IRGNICSM), which provides a list of all the IMS regions currently processing transactions from IMS Connect</td>
</tr>
<tr>
<td>In Msgs</td>
<td>OTMA Tpipe Message Summary view (ITPIPTRN), which provides OTMA message information summarized by message name and tpipe</td>
</tr>
<tr>
<td>Out Msgs</td>
<td>OTMA Output Messages view (IOTMAOUT), which provides information about output for an OTMA client</td>
</tr>
<tr>
<td>Num Tpips</td>
<td>OTMA Group Tpipe Summary view (ITPIPSUM), which provides summarized tpipe information for one or more members of single or multiple OTMA groups</td>
</tr>
</tbody>
</table>

**OTMA Client and Server Detail view (IOTMADTL)**

The OTMA Client and Server Detail view (IOTMADTL) displays detailed information about an OTMA server or client.
You can hyperlink to the IOTMadtl view from the OTMA Client and Server Summary view (IOTMASUM).

**Figure 238: OTMA Client and Server Detail view (IOTMadtl)**

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Msgs</td>
<td>OTMA Tpipe Message Summary view (ITPIPTRN), which provides OTMA message information summarized by message name and tpipe</td>
</tr>
<tr>
<td>Output Msgs</td>
<td>OTMA Output Messages view (IOTMAOUT), which provides information about output for an OTMA client</td>
</tr>
<tr>
<td>Num Tpipes</td>
<td>OTMA Group Tpipe Summary view (ITPIPSUM), which provides summarized tpipe information for one or more members of single or multiple OTMA groups</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

The OTMA Messages view (IOTMATRN) provides unsummarized OTMA message information.

Each row represents a single message, which could be a transaction, an IMS command, a response, or data. The view provides specific information about individual messages.

When you identify a message of interest, you may want to hyperlink from the message’s name to access the IOTMADTLR view, where you can examine the same information for a single message, without having to scroll right several times in the IOTMATRN view.
You can hyperlink to the IOTMATRN view from the OTMA Transaction option in the IMS Fast Menu (EZIFAST) and from the **Num Msgs** field in the ITPIPTRN view.

**Figure 239: OTMA Messages view (IOTMATRN)**

<table>
<thead>
<tr>
<th>Command</th>
<th>Scroll</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVIMS D</td>
<td>M1 =IOTMATRN=======I10X====*=427MAR2009==07:51:19==MVIMS==0==0</td>
<td>OTMA Input Messages</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Msg Name</strong></td>
<td>OTMA Message Detail view (IOTMDTLR), which provides specific, unsummarized OTMA message information</td>
</tr>
<tr>
<td><strong>Message Type</strong></td>
<td>Transaction Detail view (ITRDTLR), which displays processing statistics and status for the selected transaction</td>
</tr>
<tr>
<td><strong>Tpipe Name</strong></td>
<td>OTMA Tpipe Detail view (ITPIPDTL), which displays detailed information for a specific tpipe</td>
</tr>
</tbody>
</table>

### OTMA Message Detail view (IOTMDTLR)

The OTMA Message Detail view (IOTMDTLR) provides specific, unsummarized OTMA message information about a single message, a message that could be a transaction, an IMS command, a response to IMS, or data.

The information in the IOTMDTLR view is the same as the information shown in the OTMA Message view.
You can hyperlink to the IOTMDTLR view from the **Msg Name** field in the IOTMATRN view.

**Figure 240: OTMA Message Detail view (IOTMDTLR)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Msg Type</strong></td>
<td>Transaction Detail view (ITRDTLR), which displays processing statistics and status for the selected transaction</td>
</tr>
<tr>
<td><strong>Tpipe Name</strong></td>
<td>OTMA Tpipe Detail view (ITPIPDTL), which displays detailed information for a specific tpipe</td>
</tr>
<tr>
<td><strong>TCP/IP Address</strong></td>
<td>If MainView for IP is available, TCPCONS view, which displays all active and inactive TCP connections that occurred since the last intervals</td>
</tr>
</tbody>
</table>

**OTMA Output Summary view (IOTMAOUT)**

The OTMA Output Summary view displays information about OTMA output messages.

The view shows which IMS, OTMA client, and TPIPE they are associated with, the number of output messages, the date and time of the oldest message for each TPIPE, and the TPIPE status.

If IMS cold starts while OTMA output messages are still queued to it, these messages will be associated with an IMS OTMA server, not with the original client and TPIPE.
OTMA output on the shared queues will not be displayed unless the MainView for IMS Shared Queues Data Server is active.

**Figure 241: OTMA Output Summary view (IOTMAOUT)**

```
14JUL2010 07:29:08 ------ MAINVIEW WINDOW INTERFACE (V6.0.00) ---------------
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1 ALT WIN ===>
>W1 =IOTMAOUT=ITPIPSUM=I11T45CT=*========14JUL2010==07:28:07====MVIMS====D====1
   OTMA Output Summary
   Related Views
   . Output on Shared Queues
   IMS OTMA Member Tpipe Out Hold Oldest Oldest Tpipe
   ID Member Name Type Name     Msgs Q    Date      Time     Status
   I11T SPQT     SuperM CLT11R     200 Yes  14JUL2010 06:50:41 Started
```

No hyperlinks are available on the view.

**OTMA Group Tpipe Summary view (ITPIPSUM)**

The OTMA Group Tpipe Summary view (ITPIPSUM) provides summarized tpipe information for one or more members of single or multiple OTMA groups.

You can hyperlink to the ITPIPSUM view from the Stopped Tpipes field in the IMS Unavailable Resources view (IMSUNRSR) and from the Num Tpipe field in the IOTMASUM view.

**Note**

If SMQ is displayed in the Output Mgs field, the ISQQUERY parameter in BBPARM member IMFBEX00 is preventing collection of message count data for IMS subsystems using shared message queues. When the ISQQUERY parameter is allowing collection of message count data for shared message queues, you can also use it to define the refresh rate for the data.

For information about using the ISQQUERY parameter, see MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

**Figure 242: OTMA Group Tpipe Summary view (ITPIPSUM)**

```
14JUL2010 07:28:07 ------ MainView WINDOW INTERFACE (V6.0.00) ---------------
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1 ALT WIN ===>
>W1 =ITPIPSUM=IOTMASUM=I11T45CT=*========14JUL2010==07:28:07====MVIMS====D====3
   OTMA TPIPE Summary
   Related Views
   . OTMA Overview
   CM Tpipe Tpipe Total Curr Curr Tpipe CallOut ---- OTMA
   -- Name Status Input Input Output Sync'd Total Actv Member Name
   CLT11R Started 0 0 200 Not Sync 0 0 SPQT
   CLT11R Started 200 0 0 Not Sync 0 0 ICB11T
   IVPPPIPE Started 0 0 0 Not Sync 4 1 SPQT
```

No hyperlinks are available on the view.
OTMA Tpipe Detail view (ITPIPDTL)

The OTMA Tpipe Detail view (ITPIPDTL) displays detailed information for a specific tpipe.

**Figure 243: OTMA Tpipe Detail view (ITPIPDTL)**

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curr Input</td>
<td>OTMA Tpipe Message Summary view (ITPIPTRN), which provides OTMA message information summarized by message name and tpipe</td>
</tr>
<tr>
<td>Curr Output</td>
<td>OTMA Output Messages view (IOTMAOUT), which provides information about output for an OTMA client</td>
</tr>
</tbody>
</table>

**OTMA Tpipe Message Summary view (ITPIPTRN)**

The OTMA Tpipe Message Summary view (ITPIPTRN) provides OTMA message information summarized by message name and tpipe.

You can hyperlink to the ITPIPTRN view from the following fields:

- **In Msgs** in the IOTMASUM view
- **Input Msgs** in the ITPIPSUM view
OTMA Destination Descriptors view (IOTMDSUM)

The OTMA Destination Descriptors view (IOTMDSUM) displays information about all the OTMA destination descriptors that are defined for the IMS systems included in the view context. OTMA descriptors are used to define the destinations for messages routed through OTMA.

You can hyperlink to the IOTMASUM view from the OTMA Client and Server Summary view (IOTMASUM).

On the view:

- You can create, delete, or update descriptors if the target IMS is in an IMSplex. For more information, see “IOTMDSUM and IOTMDDTL views line commands” on page 370.

- You can filter the displayed information by selecting Add Filter Masks and Remove Filter Masks in the upper portion of the view.

When you select Add Filter Masks, a blank line replaces the second line of the header in the tabular portion of the view. Type a filter in one or more fields and
press Enter. For example, to display only descriptor whose names start with MINE, type MINE in the Dest Name field and press Enter.

To display the second line of the header again, select Remove Filter Masks. This does not remove the actual filter.

To remove a filter, clear all the filters you specified and press Enter.

Figure 245: OTMA Destination Descriptors view (IOTMDSUM)

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dest Name</td>
<td>OTMA Descriptor view (IOTMDDTL), which displays detailed information about an OTMA descriptor</td>
</tr>
</tbody>
</table>

OTMA Descriptor view (IOTMDDTL)

The OTMA Descriptor view (IOTMDDTL) displays detailed information about an OTMA descriptor.

You can hyperlink to the IOTMDDTL view from the OTMA Destination Descriptors view (IOTMDSUM).
On the view, you can create a descriptor, or delete or update the descriptor, if the target IMS is in an IMSplex. For more information, see “IOTMDSUM and IOTMDDTL views line commands” on page 370.

**Figure 246: OTMA Descriptor view (IOTMDDTL)**

<table>
<thead>
<tr>
<th>Command</th>
<th>Scroll</th>
<th>Current Win</th>
<th>Alt Win</th>
</tr>
</thead>
</table>
| 25JUL2013 14:31:00 | MAINVIEW WINDOW INTERFACE (V6.1.00) | 1 | => CSR
| W1 = IOTMDDTL | | | |
| Destination name. | IVPDTOR1 | Exit Override....... | OTMAI12A |
| Type............... | IMSCON | TMEMBER.................. | IMSCON and IMSTRAN-- |
| Member name....... | I12G | TPIPE.................. | N/A |
| IMSTRAN---------- | | | N/A |
| LTERM Override.. | N/A | TMEMBER is a SprMbr NO | Sync Callout Timer.  00100 |
| ReplyCheck........ | N/A | | |
| IMSCON----------- | | | |
| Adapter name.... | | | |
| Converter name.. | | | |
| Remote ICON..... | | | |
| Remote IMS...... | | | |
| Remote Tran...... | | | |
| Userid........... | | | |
| MQSeries--------- | | | |
| Sync TPIPE...... | N/A | | |
| COPYMD........... | N/A | | |
| Report........... | N/A | | |

No hyperlinks are available on the view.
Monitor ODBM address spaces and threads

Use the Open Database Manager (ODBM) views to monitor and administer ODBM address spaces and threads.

ODBM address spaces and threads monitoring overview

The ODBM summary and detail views provide a system-wide overview.

The views provide status and activity information for ODBM data stores, aliases, threads, SCI, and configuration members.

With the ODBM views, you can:

- Start and stop data store connections
- Start and stop alias connections
- Start and stop ODBM tracing
- Update configuration members
- Connect new data stores and aliases for an ODBM

Relevant ODBM related information is also displayed in other views of the MainView for IMS product, such as the regions and trace views. You may want to use the information collected in those views as part of your analysis.
The following ODBM views are provided:

- “ODBM Summary view (IODBSUMR)” on page 384
- “ODBM Data Store Summary view (IODBDSMR)” on page 384
- “ODBM Configuration Summary view (IODBCSMR)” on page 384
- “ODBM Alias Summary view (IODBASMR)” on page 385
- “ODBM Thread Summary view (IODBTSMR)” on page 386
- “ODBM SCI Summary view (IODBSSMR)” on page 386

Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Access the ODBM views

You can access the ODBM views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and selecting the view from the VIEWS list, or by entering ODBM and selecting a view from the list of ODBM views.

ODBM views line commands

The ODBM views offer line commands.
## IODBSUMR view line commands

You can enter the following line commands on the IODBSUMR view:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDC</td>
<td>Start all data store connections for the selected ODBM</td>
</tr>
<tr>
<td>PDC</td>
<td>Stop all data store connections for the selected ODBM</td>
</tr>
<tr>
<td>SAC</td>
<td>Start all alias connections for the selected ODBM</td>
</tr>
<tr>
<td>PAC</td>
<td>Stop all alias connections for the selected ODBM</td>
</tr>
<tr>
<td>UC</td>
<td>Change which configuration member is being used for the selected ODBM</td>
</tr>
<tr>
<td>UCC</td>
<td>Change which configuration member is being used for the selected ODBM and connect to the new data stores and aliases specified in the configuration member</td>
</tr>
<tr>
<td>STR</td>
<td>Start ODBM tracing for all the data stores of the selected ODBM</td>
</tr>
<tr>
<td>PTR</td>
<td>Stop ODBM tracing for all the data stores of the selected ODBM</td>
</tr>
</tbody>
</table>

## IODBDSMR view line commands

You can enter the following line commands on the IODBDSMR view:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDC</td>
<td>Start the connection of a data store to ODBM</td>
</tr>
<tr>
<td>PDC</td>
<td>Stop the connection of a data store to ODBM</td>
</tr>
<tr>
<td>STR</td>
<td>Start ODBM tracing for a data store</td>
</tr>
<tr>
<td>PTR</td>
<td>Stop ODBM tracing for a data store</td>
</tr>
</tbody>
</table>

## IODBASMR view line commands

You can enter the following line commands on the IODBASMR view:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAC</td>
<td>Start the connection of an alias to ODBM</td>
</tr>
<tr>
<td>PAC</td>
<td>Stop the connection of an alias to ODBM</td>
</tr>
<tr>
<td>SDC</td>
<td>Start a data store connection for the selected ODBM</td>
</tr>
<tr>
<td>PDC</td>
<td>Stop a data store connection for the selected ODBM</td>
</tr>
</tbody>
</table>
ODBM Summary view (IODBSUMR)

The ODBM Summary (IODBSUMR) view is a good starting place for examining the status and activity of ODBM, data stores, aliases, threads, SCI, and configuration members.

The IODBSUMR view displays information about every ODBM that is running.

Figure 247: ODBM Summary view (IODBSUMR)

ODBM Data Store Summary view (IODBDSMR)

The ODBM Data Store Summary (IODBDSMR) view provides the status and activity for ODBM data stores.

You can hyperlink to the IODBDSMR view from the Num DStr field in the IODBSUMR view.

Figure 248: ODBM Data Store Summary view (IODBDSMR)

ODBM Configuration Summary view (IODBCSMR)

The ODBM Configuration Summary (IODBCSMR) view displays the settings defined in the active ODBM configuration members.
You can hyperlink to the IODBCSMR view from the **Config Name** field in the IODBSUMR view.

**Figure 249: ODBM Configuration Summary view (IODBCSMR)**

<table>
<thead>
<tr>
<th>Config</th>
<th>DStr Num</th>
<th>Alias</th>
<th>ODBM</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSLDCA1A</td>
<td>Y</td>
<td>N/A</td>
<td>N/A</td>
<td>I11AOD</td>
</tr>
<tr>
<td>CSLDCA1A</td>
<td>N</td>
<td>I11A</td>
<td>DS1A</td>
<td>I11AOD</td>
</tr>
<tr>
<td>CSLDCY1A</td>
<td>Y</td>
<td>N/A</td>
<td>N/A</td>
<td>I11YOD</td>
</tr>
<tr>
<td>CSLDCY1A</td>
<td>N</td>
<td>I11Y</td>
<td>I11Y, I11G</td>
<td>I11YOD</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**ODBM Alias Summary view (IODBASMR)**

The ODBM Alias Summary (IODBASMR) view provides the status and activity for ODBM aliases. Aliases are the names that ODBM application clients use to connect to IMS data stores.

You can hyperlink to the IODBASMR view from the:

- **Num Alias** field in the IODBSUMR view
- **Num Alias** field in the IODBDSMR view
- **Alias** field in the IODBDSMR view

**Figure 250: ODBM Alias Summary view (IODBASMR)**

<table>
<thead>
<tr>
<th>CMD Alias</th>
<th>Alias</th>
<th>DataStore</th>
<th>DataStore</th>
<th>Num</th>
<th>ODBM</th>
<th>IMSplex</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS1A</td>
<td>STARTED</td>
<td>I11A</td>
<td>STARTED</td>
<td>0</td>
<td>I11AOD</td>
<td>CSLPLX11</td>
</tr>
<tr>
<td>I11G</td>
<td>STARTED</td>
<td>I11Y</td>
<td>STARTED</td>
<td>0</td>
<td>I11YOD</td>
<td>CSLPLX11</td>
</tr>
<tr>
<td>I11Y</td>
<td>STARTED</td>
<td>I11Y</td>
<td>STARTED</td>
<td>0</td>
<td>I11YOD</td>
<td>CSLPLX11</td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Num Thrd</td>
<td>ODBM Thread Summary (IODBTSMR) view, which displays thread status and activity for the data store</td>
</tr>
</tbody>
</table>
The ODBM Thread Summary (IODBTSMR) view provides the status and activity for ODBM threads.

You can hyperlink to the IODBTSMR view from the:

- Num Thrd field in the IODBSUMR view
- Num Threads field in the IODBSSMR view
- Num Thrds field in the IODBDSMR view
- Num Thrd field in the IODBASMR view

No hyperlinks are available on the view.

The ODBM SCI Summary (IODBSSMR) view provides the status and activity for SCI members that are connected to IMS data stores.

You can hyperlink to the IODBSSMR view from the Num SCI field in the IODBSUMR view.

No hyperlinks are available on the view.
Monitor IMS Connect systems

The Energizer for IMS Connect views and menus provide information about the Energizer for IMS Connect systems.

**Note**
Only IMS Connect systems on which the BMC Energizer for IMS Connect product is installed are supported.
You must have a product-specific logspace defined (see the MainView for IMS and MainView for DBCTL Customization Guide).
You must also be running IMS version 9 or later.

IMS Connect systems monitoring overview

From the Energizer for IMS Connect menus, you can examine the status and activity of IMS Connect systems, and you can issue commands to:

- Display, set, and reset IMS Connect DataStores
- Display, reload, and reset IMS Connect exits and options
- Display and set IMS Connect router information
- Display and reset IMS Connect statistics, trace, and journal options

The following Energizer for IMS Connect views are provided:

- “Energizer for IMS Connect Overview view (IICONSMR)” on page 389
- “Energizer for IMS Connect Commands view (IICONCMD)” on page 390
- “Energizer for IMS Connect Quick Picks Commands menu (IICONCQP)” on page 390
- Energizer for IMS Connect DataStore Commands (IICONCDS) (not included in the documentation)
Access the Energizer for IMS Connect views and menus

You can access the Energizer for IMS Connect views and menus:

- By selecting IMS Connect from the following menus:
  - IMS Easy Menu (EZIMS, EZIMSR)
  - IMS Fast Menu (EZIFAST, EZIFASTR)
  - IMS SSI Easy Menu (EZISSI, EZISSIR)
- By selecting menus from the Energizer for IMS Connect command view (IICONCMD), shown in Figure 254 on page 390
- By using view names:
  - Enter a view name on the COMMAND line.
— Enter **VIEWS** on the COMMAND line and select a view from the VIEWS list.

— Enter **ICON** on the COMMAND line and select a view from the list of IMS Connect views.

- By hyperlinking to:
  - IICONCMD from the **Job/STC Name** field on the IICONSMR view
  - IICONDST from the **DStr Actv** field on the IICONSMR view
  - IICONDST from the **DStr Disc** field on the IICONSMR view
  - IICONCSM from the **Num Clnt** field on the IICONSMR view

To access the Region/IMS Connect Activity view (IRGNICSM), hyperlink to it from the **Processing IMS Conn** field in the IMSRGNSR view or from the **Type** field in the IOTMASUM view.

---

**Energizer for IMS Connect Overview view (IICONSMR)**

The **Energizer for IMS Connect Overview view** (IICONSMR), is a good starting place for examining the status and activity of IMS Connect systems.

By default, the view shows data for every **Energizer for IMS Connect** that has processed a message on an IMS system that is in the view context. You can show information for a specific **Energizer for IMS Connect** system by using a command. For more information about using the **Energizer for IMS Connect** views, see “**IMS Connect views and menus usage**” on page 393.

**Figure 253: Energizer for IMS Connect Overview view (IICONSMR)**

<table>
<thead>
<tr>
<th>Job/STC</th>
<th>TCP/IP Host</th>
<th>Num</th>
<th>DStr</th>
<th>DStr Input</th>
<th>Msg</th>
<th>Msg</th>
<th>Affin</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICON11TN</td>
<td>17060</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>0.00</td>
<td>0.00</td>
<td>0.40</td>
</tr>
<tr>
<td>IPAHWSJ</td>
<td>19007</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>9</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Energizer for IMS Connect Commands view (IICONCMD)

The Energizer for IMS Connect Commands view (IICONCMD) is a good starting point to become familiar with the IMS Connect views.

By default, the menu displays the current Energizer for IMS Connect system, provides a place to enter Energizer for IMS Connect commands, and provides hyperlinks to menus of Energizer for IMS Connect commands. For more information about using the Energizer for IMS Connect menus, see “IMS Connect views and menus usage” on page 393.

Figure 254: Energizer for IMS Connect Commands view (IICONCMD)

```
23MAR2009  17:39:38 ------ MainView WINDOW INTERFACE (V6.0.00) -------------
COMMAND ===> SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =IICONCMD==========I10X=====*========23MAR2009==17:37:58====MVIMS====D====1
   Energizer Commands
   Job/STC Name...... IPAHWSJ
   Host Name......... SJSC
   PORT............... 19007

   Enter Command==>.
   Example:......... -DISPLAY DS TYPE(STATUS) ID(*)
   --COMMAND MENU---. -----------------
   Quick Picks....... Most frequently used commands
   Options.......... Display/Reload options. Reset security
   Exits............. Display/Reload/Reset exits and statistics
   DataStores....... Display/Set/Reset DataStores and statistics
   Router............ Display/Set router options and affinity
   Statistics........ Display/Reset stats
   Trace and Journal. Display/Set Trace and Journal options
   z/OS Commands..... IMS Connect z/OS commands
```

No hyperlinks are available on the view.

Energizer for IMS Connect Quick Picks Commands menu (IICONCQP)

The Energizer for IMS Connect Quick Picks Commands menu (IICONCQP) lists the most frequently used Energizer for IMS Connect commands.

By default, the IICONCQP menu displays the current Energizer for IMS Connect system. You use the view to execute the listed commands. A command is issued for the displayed Energizer for IMS Connect system, unless you change the job name, the STC name, the host name, or the port name. For some commands, you can also
enter parameters. For more information about using the Energizer for IMS Connect menus, see “IMS Connect views and menus usage” on page 393.

Figure 255: Energizer for IMS Connect Quick Picks Commands menu (IICONCQP)

Energizer for IMS Connect DataStores view (IICONDST)

The Energizer for IMS Connect DataStores view displays status and statistics for IMS Connect DataStores.

Scroll right to see all of the displayed information.

By default, the view shows data for every Energizer for IMS Connect that has processed a message on an IMS system that is in the view context. You can change the Energizer for IMS Connect system for which information is displayed, by using a
command. For more information about using the Energizer for IMS Connect views, see “IMS Connect views and menus usage” on page 393.

**Figure 256: Energizer for IMS Connect DataStores view (IICONDIST)**

<table>
<thead>
<tr>
<th>DataStore</th>
<th>Connect</th>
<th>Port</th>
<th>Status</th>
<th>Input</th>
<th>Msgs</th>
<th>Current</th>
<th>Recent</th>
<th>Peak</th>
<th>Avg</th>
<th>Size</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>I10X</td>
<td>IPAHWSJ</td>
<td>19007</td>
<td>ACTIVE</td>
<td>7</td>
<td>0.00</td>
<td>0.00</td>
<td>0.60</td>
<td>98</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I10Y</td>
<td>IPAHWSJ</td>
<td>19007</td>
<td>DISC</td>
<td>2</td>
<td>0.00</td>
<td>0.00</td>
<td>0.40</td>
<td>98</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I10Z</td>
<td>IPAHWSJ</td>
<td>19007</td>
<td>DISC</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I8X</td>
<td>IPAHWSJ</td>
<td>19007</td>
<td>DISC</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I9X</td>
<td>IPAHWSJ</td>
<td>19007</td>
<td>DISC</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I9Y</td>
<td>IPAHWSJ</td>
<td>19007</td>
<td>DISC</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Energizer for IMS Connect Clients view (IICONCSM)**

The Energizer for IMS Connect Clients view (IICONCSM) displays IMS Connect client data for every Energizer for IMS Connect that the IMS systems in the view context have processed a message from.

You can change the Energizer for IMS Connect system for which information is displayed, by using a command. For more information about using the Energizer for IMS Connect views, see “IMS Connect views and menus usage” on page 393.

**Figure 257: Energizer for IMS Connect Clients view (IICONCSM)**

<table>
<thead>
<tr>
<th>Client</th>
<th>Wait</th>
<th>User</th>
<th>Data</th>
<th>Tran</th>
<th>Client</th>
</tr>
</thead>
<tbody>
<tr>
<td>--</td>
<td>secs</td>
<td>State</td>
<td>Id</td>
<td>Store</td>
<td>Code</td>
</tr>
<tr>
<td>ICON11TN DELDUMMY</td>
<td>0</td>
<td>RECV</td>
<td>172.19.164.166</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
IMS Connect views and menus usage

You can use the IMS Connect views and menus to display information about IMS Connect systems and to issue Energizer for IMS Connect commands.

*Note*
Only IMS Connect systems on which the Energizer for IMS Connect product is installed are supported. You must also be running IMS version 9 or later.

Limit views to a specific Energizer *for IMS Connect* system

By default, the Energizer *for IMS Connect* views show data for every Energizer *for IMS Connect* that has processed a message on an IMS system that is in the view context. You can limit the display of information to a specific Energizer *for IMS Connect* system.

To limit the data displayed on the IICONDST, IICONSMR, or IICONCSM views, use the following command on the COMMAND line of the view:

```
viewName systemName hostName portNumber
```

*viewName*

Name of the view

*systemName*

Name of the Energizer *for IMS Connect* system to which you want to limit the display, including Energizer *for IMS Connect* systems that are not in the view context.

*Note*
This parameter is not valid for the IICONSMR view.

*hostName*

Name of the host for the Energizer *for IMS Connect* system

*portNumber*

Port number for the Energizer *for IMS Connect* system
Changing to which Energizer for IMS Connect system commands are issued

By default, the Energizer for IMS Connect menus show information about the current Energizer for IMS Connect system. It is to this system that a command will be issued; however, you can change to which system the command is issued.

1 Type over the value in the Job/STC Name field, Host Name field, PORT field, or any combination of them to specify the Energizer for IMS Connect system you want to issue a command to.

2 Press Enter.

The Energizer for IMS Connect system is changed.

Delete an Energizer for IMS Connect client

You can delete Energizer for IMS Connect clients by using the DC line command on the IMS Connect Clients view (IICONCSM).

Issuing IMS Connect commands

Use the various Energizer for IMS Connect command views and menus, to issue commands to Energizer for IMS Connect or to IMS Connect. If you want to issue a command to another Energizer for IMS Connect system, take the following steps:

1 Change the values as needed in the Job/STC Name, Host Name, and PORT fields.

2 Do one of the following:

   ■ For views, type an Energizer for IMS Connect command in the Enter Command field.

   ■ For menus, type the number of a command in the Enter command number field.

   The online Help contains a description of each command.

3 (optional) For menus, type parameter values for commands that have parameters in the Enter optional pattern for * below field.
4  *(optional)* For the IMS Connect z/OS command view, type a value in the **Wait Time** field.

The wait time determines how long, in seconds, MainView for IMS waits for IMS Connect to complete the command and display the output. If IMS Connect has not completed writing all of the command output messages in the specified amount of time, some output will be missing from the displayed results.

5  Press **Enter**.

The command is issued and the results are displayed.
Monitor an MSC network

The multiple systems coupling (MSC) views provide vital information about an MSC network. Systems programmers and MTO operators can use the MSC views to monitor MSC traffic.

MSC network monitoring overview

The views show MSNAME, physical link, and logical link information, such as message enqueue, dequeue, and queue counts.

You can enter commands from the MSC views to stop and start MSNAMEs, physical links, and logical links.

The following MSC views are provided:

- “MSC Overview view (IMCOVR)” on page 399
- “MSC MSNAMEs view (IMCTERMR)” on page 401
- “MSC Logical Links view (IMCLLNKR)” on page 402
- “MSC Link Statistics view (IMCLDTLR)” on page 403
- “MSC Physical Links view (IMCPLNKR)” on page 403
- “IMS MSC Menu (EZIMSCR)” on page 404

Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.
Access the MSC views

You can access a filtered version of the MSC views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)

An easy way to access the MSC views is from the IMS MSC Menu (EZIMSCR), shown in “IMS MSC Menu (EZIMSCR)” on page 404.

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering MSC on the COMMAND line and then selecting a view from the list of MSC views.

For more specific information about hyperlinks to the MSC views, see the sections that describe the views.

MSC views commands

The MSC views offer primary and line commands.

Primary command

The MSC views and menus support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

Line commands

Several line commands are available for use on the MSC views.
Line commands require implementation of the MainView AutoOPERATOR product for IMS.

The line commands you can enter on an MSC view depend on the fields that are displayed in the view:

- In an MSC view that displays logical link number and MSC names (IMCTERMR and IMCLLNKR), you can issue the PMS, SMS, PLK, and SLK commands.

- In the MSC view that displays physical link names but does not display MSC names (IMCPLNKR), you can issue the PPL and SPL line commands against VTAM physical links only.

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
</table>
| PMS          | Stop an MSNAME  
Issues the IMS /STOP MSNAME command to stop an MSNAME.  
(PMS can be issued in the IMCTERMR and IMCLLNKR views only.) |
| SMS          | Start an MSNAME  
Issues the IMS /START MSNAME command to start an MSNAME.  
(SMS can be issued in the IMCTERMR and IMCLLNKR views only.) |
| PLK          | Pstop a logical link  
Issues the IMS /PSTOP LINK command to pstop a logical link.  
(PLK can be issued in the IMCTERMR and IMCLLNKR views only.) |
| SLK          | Rstart a logical link  
Issues the IMS /RSTART LINK command to rstart a logical link.  
(SLK can be issued in the IMCTERMR and IMCLLNKR views only.) |
| PPL          | Pstop a physical link  
Issues the IMS /PSTOP MSPLINK command to pstop a physical link.  
(PPL can be issued in the IMCPLNKR view only and against VTAM physical links only.) |
| SPL          | Rstart a physical link  
Issues the IMS /RSTART MSPLINK command to rstart a physical link.  
(SPL can be issued in the IMCPLNKR view only and against VTAM physical links only.) |

**MSC Overview view (IMCOVR)**

The MSC Overview view (IMCOVR) provides basic information about a multiple systems coupling (MSC) network.
The IMCOVR view shows the resources that are associated with the IMS subsystems in the MSC network and identifies their active exits.

You can hyperlink to the IMCOVR view from the:
- Overview option in the IMS MSC Menu (EZIMSCR)
- MSC option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISSI)

**Figure 258: MSC Overview view (IMCOVR)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pstpd Links</td>
<td>MSC Logical Links view (IMCLLNKR), which displays pstopped logical links by link number and provides associated information</td>
</tr>
<tr>
<td>Stop MSNs</td>
<td>MSC MSNAMEs view (IMCTERMR), which displays stopped MSNAMEs and associated information</td>
</tr>
<tr>
<td>Phys Lnks</td>
<td>MSC Physical Links view (IMCPLNKR), which displays all physical links for the MSC network. When you hyperlink from the CTC, MTM, and VTAM Lnks fields, IMCPLNKR displays only the physical links of the type that you selected</td>
</tr>
<tr>
<td>CTC Lnks</td>
<td>IMCPLNKR view, which displays all the CTC physical links</td>
</tr>
<tr>
<td>MTM Lnks</td>
<td>IMCPLNKR view, which displays all the MTM physical links</td>
</tr>
<tr>
<td>VTAM Lnks</td>
<td>IMCPLNKR view, which displays all the VTAM physical links</td>
</tr>
<tr>
<td>TCP Lnks</td>
<td>IMCPLNKR view, which displays all the TCP/IP physical links</td>
</tr>
<tr>
<td>XCF Lnks</td>
<td>IMCPLNKR view, which displays all the XCF physical links</td>
</tr>
<tr>
<td>Lgl Lnks</td>
<td>MSC Logical Links view (IMCLLNKR), which displays pstopped logical links by link number and provides associated information</td>
</tr>
<tr>
<td>MS NAMEs</td>
<td>MSC MSNAMEs view (IMCTERMR), which provides information about all MSNAMEs in the MSC network</td>
</tr>
</tbody>
</table>
MSC MSNAMEs view (IMCTERMR)

The MSC MSNAMEs view (IMCTERMR) organizes information by MSC terminal name.

For each MSNAME, the IMCTERMR view shows the MSNAME status, the logical link number, the queued and dequeued counts, the system ID (SYSID) of the local and remote IMS subsystem, the name assigned to each physical link, and up to four statuses for each logical link.

You can hyperlink to the IMTERMR view from the:

- MSNAMEs option in the IMS MSC Menu (EZIMSCR)
- MSC MSNAMEs option in the IMS Fast Menu (EZIFAST)
- Stopped MSNAMEs field in the IMS Unavailable Resources view (IMSUNRSR)
- MSNAME field in the MSC Logical Links view (IMCLLNKR)
- Stop MSNs and MSNAMEs fields in the MSC Physical Links view (IMCPLNKR)

Figure 259: MSC MSNAMEs view (IMCTERMR)

The following hyperlinks are provided on the view:

- Lgl Lnk
  - To access: MSC Logical Links view (IMCLLNKR), which provides additional information about the selected logical link

- Physical Link
  - To access: MSC Physical Links view (IMCPLNKR), which provides additional information about the selected physical link

The following hyperlinks are provided on the view:
MSC Logical Links view (IMCLLNKR)

The MSC Logical Links view (IMCLLNKR) organizes information by logical link number and then by MSNAME in alphabetical order.

For each logical link, the IMCLLNKR view shows the associated MSNAME, the node name of the VTAM partner, the physical link name, the queued and dequeued counts, the system ID (SYSID) of the local and remote IMS subsystem, and up to four statuses for each logical link.

You can hyperlink to the IMCLLNKR view from the:

- Logical Links option in the IMS MSC Menu (EZIMSCR)
- MSC Logical Links option in the IMS Fast Menu (EZIFAST)
- Pstpd Links and Lgl Lnk fields in the MSC Overview view (IMCOVR)
- Lgl Lnk field in the MSC MSNAMEs view (IMCTERMR)
- Physical Link field in the MSC Physical Links view (IMCPLNKR)

Figure 260: MSC Logical Links view (IMCLLNKR)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lgl Lnk</td>
<td>MSC Link Statistics view (IMCLDTLR), which shows MSLINK link statistics for IMS 10.1 and higher</td>
</tr>
<tr>
<td>MSNAME</td>
<td>MSC MSNAMEs view (IMCTERMR), which provides additional information about the selected MSNAME</td>
</tr>
<tr>
<td>Physical Link</td>
<td>MSC Physical Links view (IMCPLNKR), which provides additional information about the selected physical link</td>
</tr>
</tbody>
</table>
MSC Link Statistics view (IMCLDTLR)

The MSC Link Statistics view (IMCLDTLR) provides MSLINK link statistics for IMS 10.1 and higher.

The statistics include send data, receive data, and high/low watermarks. The value of count fields are cumulative since the last checkpoint. The high and low values are reset after each IMS checkpoint.

You can hyperlink to the IMCLDTLR view from the Lgl Lns field in the MSC Logical Links view (IMCLLNKR).

Figure 261: MSC Link Statistics view (IMCLDTLR)

<table>
<thead>
<tr>
<th>IMS ID</th>
<th>Logical Link</th>
<th>Send Stats</th>
<th>Receive Stats</th>
<th>I10X MVS Name</th>
<th>SJSC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total Counts</td>
<td>Total Counts</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Number Bytes</td>
<td>Total Number Bytes</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average Bytes per Send</td>
<td>Average Bytes per Receive</td>
<td></td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Number Messages</td>
<td>Total Number Messages</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Number Message Bytes</td>
<td>Total Number Message Bytes</td>
<td></td>
<td>14688</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average Bytes per Message</td>
<td>Average Bytes per Message</td>
<td></td>
<td>459.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Largest Message Size</td>
<td>Largest Message Size</td>
<td></td>
<td>459</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Smallest Message Size</td>
<td>Smallest Message Size</td>
<td></td>
<td>459</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total OGETs</td>
<td>Total OPUTs</td>
<td></td>
<td>96</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total OGET Time (sec)</td>
<td>Total OPUT Time (sec)</td>
<td></td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Highest Send Time (msec)</td>
<td>Highest Recv Time (msec)</td>
<td></td>
<td>2.879</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lowest Send Time (msec)</td>
<td>Lowest Recv Time (msec)</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total I/O Time (sec)</td>
<td>Total I/O Time (sec)</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Highest I/O Time (msec)</td>
<td>Highest I/O Time (msec)</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lowest I/O Time (msec)</td>
<td>Lowest I/O Time (msec)</td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

MSC Physical Links view (IMCPLNKR)

The MSC Physical Links view (IMCPLNKR) organizes information by physical link name.

For each physical link, the IMCPLNKR view shows the link name and type, the number of active sessions, and additional information based on the type of physical link (CTC, MTM, or VTAM).

You can hyperlink to the IMCPLNKR view from the:

- Physical Links option in the IMS MSC Menu (EZIMSCR)
■ MSC Physical Links option in the IMS Fast Menu (EZIFAST)

■ Phys Lnks, CTC Lnks, MTM Lnks, and VTAM Lnks fields in the MSC Overview view (IMCOVR)

■ Physical Link field in the MSC MSNAMEs view (IMCTERMR)

■ Physical Link field in the MSC Logical Links view (IMCLLNKR)

Figure 262: MSC Physical Links view (IMCPLNKR)

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Link</td>
<td>MSC Logical Links view (IMCLLNKR), which provides additional information about the selected physical link</td>
</tr>
</tbody>
</table>

**IMS MSC Menu (EZIMSCR)**

The IMS MSC Menu (EZIMSCR) provides easy access to views that display vital information about a multiple systems coupling (MSC) network.

You can hyperlink to the EZIMSCR menu from the:

■ IMS Fast Menu (EZIFAST)

■ IMS Easy Menu (EZIMS)
IMS SSI Easy Menu (EZISSI)

Figure 263: IMS MSC Easy Menu (EZIMSCR)

15APR2007 12:01:09 ------ MainView WINDOW INTERFACE (Vx.x.xx) --------------
COMMAND ===>  SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===> W1 =EZIMSCR---------------I10XIMS----*--------15APR2007==12:01:09==MVIMS----D-----1
IMS MSC Easy Menu
Timeframe - Realtime

(Change) Current Target (Multiple)
Context Members 2

MSC
  . Overview
  . Physical Links
  . Logical Links
  . MSNAMEs
------------------------+------------------------
Communications
  . Input Messages Queued
  . Output Messages Queued
  . Input/Output Status
  . Active Users
  . OTMA
  . APPC

Tools and Menus
> IMS Easy Menu
> IMS Fast Menu
> IMS Classic Menu
. Issue IMS Commands
. Return...

Chapter 21 Monitor an MSC network 405
Monitor an APPC connection

The APPC views provide information about the IMS APPC connection.

APPC connection monitoring overview

Systems programmers and operators can use the APPC views to monitor and manage the APPC connection and the LUs associated with the connection.

For example, you can change the timeout value for an LU or start an LU.

The following APPC views are provided:

- “APPC Overview view (IAPPCOVR)” on page 410
- “APPC Activity view (IAPPCA)” on page 411
- “APPC LU Status view (IAPPCL)” on page 411
- APPC LU Detail (IAPPCD) (shows detailed information for input or output APPC conversations; example not included in the documentation)

Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

Access the APPC views

You can access the APPC views:

- By selecting APPC from the following menus:
  - IMS Easy Menu (EZIMS, EZIMSR)
— IMS Fast Menu (EZIFAST, EZIFASTR)
— IMS SSI Easy Menu (EZISSI, EZISSIR)
— IMS Operations Menu (EZIOPSR)
— IMS MSC Easy Menu (EZIMSCR)

■ By using view names:
  — Enter a view name on the COMMAND line
  — Enter VIEWS on the COMMAND line and select a view from the VIEWS list
  — Enter VIEWS IAP* on the COMMAND line and select a view from the list of
    APPC views

■ By hyperlinking to:
  — IAPPCA from the Stopped APPC LUs field on the IMSUNRSR view
  — IAPPCD from the LUName field on the IAPPCA view

## APPC views commands

The APPC views offer primary and line commands.

### Primary command

The APPC views support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the
dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue
IMS commands” on page 33.

### Line commands

The following line commands can be entered on the APPC views that have a line
command area.
For more information about APPC commands, see the IBM *IMS Command Reference* manual.

<table>
<thead>
<tr>
<th>Line command</th>
<th>View used on</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>TM</td>
<td>IAPPCOVR</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: CHA APPC TIMEOUT (\text{mmmmss})</td>
</tr>
<tr>
<td>PU</td>
<td>IAPPCOVR</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: PURGE APPC</td>
</tr>
<tr>
<td>SE</td>
<td>IAPPCOVR</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: SECURE APPC (CHECK/FULL/NONE/PROFILE)</td>
</tr>
<tr>
<td>SA</td>
<td>IAPPCOVR</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: START APPC</td>
</tr>
<tr>
<td>PA</td>
<td>IAPPCOVR</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: STOP APPC</td>
</tr>
<tr>
<td>CO</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: CHA APPC OUTBND (\text{luname})</td>
</tr>
<tr>
<td>DQ</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: DEQ LUNAME (\text{luname}) TPNAME (\text{tpname}) PURGE</td>
</tr>
<tr>
<td>D1</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: DEQ LUNAME (\text{luname}) TPNAME (\text{tpname}) PURGE1</td>
</tr>
<tr>
<td>SI</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: START LUNAME (\text{luname}) INPUT</td>
</tr>
<tr>
<td>SO</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: START LUNAME (\text{luname}) OUTPUT</td>
</tr>
<tr>
<td>ST</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: START LUNAME (\text{luname}) TPNAME (\text{tpname})</td>
</tr>
<tr>
<td>PI</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: STOP LUNAME (\text{luname}) INPUT</td>
</tr>
<tr>
<td>Line command</td>
<td>View used on</td>
<td>Result</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------</td>
<td>--------</td>
</tr>
<tr>
<td>PO</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: STOP LUNAME luname OUTPUT</td>
</tr>
<tr>
<td>PT</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: STOP LUNAME luname TPNAME tpname</td>
</tr>
<tr>
<td>TI</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: TRACE SET ON LUNAME luname INPUT</td>
</tr>
<tr>
<td>TO</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: TRACE SET ON LUNAME luname OUTPUT</td>
</tr>
<tr>
<td>TT</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: TRACE SET ON LUNAME luname TPNAME tpname</td>
</tr>
<tr>
<td>OI</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: TRACE SET OFF LUNAME luname INPUT</td>
</tr>
<tr>
<td>OO</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME that is displayed: TRACE SET OFF LUNAME luname OUTPUT</td>
</tr>
<tr>
<td>OT</td>
<td>IAPPCA and IAPPCL</td>
<td>Issues the following command for the LUNAME or TPNAME that is displayed: TRACE SET OFF LUNAME luname TPNAME tpname</td>
</tr>
</tbody>
</table>

**APPC Overview view (IAPPCOVR)**

The APPC Overview view (IAPPCOVR) summarizes information for the IMS APPC connection.
The view includes a line for each LUNAME or TPNAME currently in a conversation with IMS as one of the partner LUs. Scroll right to see all of the information.

**Figure 264: APPC Overview view (IAPPCOVR)**

<table>
<thead>
<tr>
<th>CM</th>
<th>IMS</th>
<th>Base</th>
<th>Current</th>
<th>Desired</th>
<th>Sync</th>
<th>Async</th>
<th>Inpt</th>
<th>Outpt</th>
<th>LLU Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>I10J</td>
<td>I10J44CT</td>
<td>N/A</td>
<td>Disabled</td>
<td>Disabled</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>I11J</td>
<td>I11J44CT</td>
<td>I1JAPLU1</td>
<td>Enabled</td>
<td>Enabled</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Yes</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**APPC Activity view (IAPPCA)**

The APPC Activity view (IAPPCA) displays the status of the IMS APPC connection.

The view includes a line for each LUNAME or TPNAME currently in a conversation with IMS as one of the partner LUs. Scroll right to see all of the information.

**Figure 265: APPC Activity view (IAPPCA)**

<table>
<thead>
<tr>
<th>CM</th>
<th>LUName</th>
<th>Status</th>
<th>Conversation ID</th>
<th>UserID</th>
<th>QCnt</th>
<th>Trancode</th>
<th>Cls</th>
<th>Reg</th>
<th>Msg</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1JAPLU1</td>
<td>Normal</td>
<td>0</td>
<td>0000000000000000000</td>
<td>n/a</td>
<td>6</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>I11J</td>
</tr>
<tr>
<td>I1JAPLU2</td>
<td>Normal</td>
<td>0</td>
<td>0000000000000000000</td>
<td>n/a</td>
<td>5</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>I11J</td>
</tr>
<tr>
<td>I1JAPLU2</td>
<td>Normal</td>
<td>0</td>
<td>0000000000000000000</td>
<td>n/a</td>
<td>5</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>I11J</td>
</tr>
<tr>
<td>MVSTEST</td>
<td>Normal</td>
<td>0</td>
<td>0000000000000000000</td>
<td>n/a</td>
<td>6</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>I11J</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**APPC LU Status view (IAPPCL)**

The APPC LU Status view displays the status of the LUs associated with the IMS APPC connection.
The view includes a line for each LUNAME or TPNAME currently in a conversation with IMS as one of the partner LUs. Scroll right to see all of the information.

**Figure 266: APPC LU Status view (IAPPCL)**

<table>
<thead>
<tr>
<th>CM Net Id</th>
<th>LU Name</th>
<th>Status</th>
<th>Direct Conv</th>
<th>QCt</th>
<th>ENQCt</th>
<th>TP Ct</th>
<th>TP Step</th>
<th>TP Name</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1JAPLU1</td>
<td>Normal</td>
<td>Input</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>I1JAPLU2</td>
<td>Normal</td>
<td>Output</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>USBMCN01</td>
<td>IOAAPLU1</td>
<td>Normal</td>
<td>Input</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>USBMCN01</td>
<td>IOAAPLU1</td>
<td>Normal</td>
<td>Output</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>DFSASYNC Normal</td>
<td></td>
</tr>
<tr>
<td>USBMCN01</td>
<td>IOAAPLU2</td>
<td>Normal</td>
<td>Input</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Normal</td>
<td></td>
</tr>
<tr>
<td>USBMCN01</td>
<td>IOAAPLU2</td>
<td>Normal</td>
<td>Output</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>DFSASYNC Normal</td>
<td></td>
</tr>
<tr>
<td>USBMCN01</td>
<td>MVSTEST</td>
<td>Normal</td>
<td>Output</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Normal</td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Monitor ISC connections

The ISC views provide information about the IMS ISC connections.

ISC connection monitoring overview

Systems programmers and operators can use the ISC views to monitor and manage the ISC connections and the LUs associated with the connections.

The following ISC views are provided:

- “ISC TCP/IP Overview view (ISCOVR)” on page 414
- “ISC TCP/IP Summary view (ISCSUMR)” on page 415

**Tip**
To access online Help for a view, position the cursor on the view name (in the window information line) and press the **Help** key. To access help for a field, position the cursor on the field and press the **Help** key.

ISC views primary command

The ISC views support the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.
The ISC TCP/IP Overview view (ISCOVR) summarizes information for the IMS ISC connections.

The view lists the IMS Connect links on an IMS system based on your context. For example, If you are using a context of ALL, the view lists all IMS Connects being used by all connected systems.

Access the ISCOVR view:

- By selecting ISC (TCP/IP) from the following menus:
  - IMS Easy Menu (EZIMS, EZIMSR)
  - IMS Fast Menu (EZIFA, EZIFASTR)
  - IMS SSI Easy Menu (EZISSI, EZISSIR)

- By using view names:
  - Enter a view name on the COMMAND line
  - Enter VIEWS on the COMMAND line and select a view from the VIEWS list
  - Enter VIEWS ISC* on the COMMAND line and select a view from the list of ISC views

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Of LTERMs</td>
<td>ISC TCP/IP Summary view (ISCSUMR), which shows information about each LTERM connected through the indicated link</td>
</tr>
</tbody>
</table>
The ISC TCP/IP Summary view (ISCSUMR) displays information about each LTERM connected through a specific link.

Access the ISCSUMR view:

- By hyperlinking to it from the No. Of LTERMs field on the ISC TCP/IP Overview view (ISCOVR)

- By using view names:
  - Enter a view name on the COMMAND line
  - Enter VIEWS on the COMMAND line and select a view from the VIEWS list
  - Enter VIEWS ISC* on the COMMAND line and select a view from the list of ISC views

Figure 268: ISC TCP/IP Summary view (ISCSUMR)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTERM Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), which shows detailed information about the selected terminal or user</td>
</tr>
<tr>
<td>User Name</td>
<td>Communication Activity and Status Detail view (IUDETAIL), which shows detailed information about the selected terminal or user</td>
</tr>
</tbody>
</table>
Manage IMS database activity

The IMS database activity views provide a useful tool for database analysis. The views make problem recognition in an N-way data sharing environment much easier.

IMS database activity management overview

Database administrators can use the database activity views to recognize and solve problems related to:

- I/O contention
- Buffer pool sizes and assignments
- Buffer cross-invalidation

While views like STRAC identify I/O at a transaction level, the database activity views provide a database perspective. The views serve as a system-wide resource, showing all:

- DL/I calls against a database (except for MSDB and GSAM databases)
- I/O activity for a database (except for MSDB and GSAM databases and I/O due to background write)

Note

DL/I calls and I/O activity are collected for DEDB databases if the Event Collector parameter DBFPLVL in BBPARM member IMFECP00 is set to collect DEDB statistics (the default). Database calls and I/O activity are collected for full function databases if the Event Collector parameter DBFPLVL in IMFECP00 is set to collect full function statistics (the default).

For information about IMFECP00, see the MainView for IMS and MainView for DBCTL Customization Guide. To determine the current setting of the parameters, use the IECPSUMR view.
You can use the database activity views to analyze I/O information related to logical and physical databases. Real-time, interval, and history statistics are provided. Counts, rate, and elapsed time are reported for both DL/I calls and database I/O events.

Information in the database activities views is summarized in the following categories so that you can solve database problems that occur at different levels.

- Data sharing group
- System
- Logical PCB (program control block)
- Physical database
- Volume
- Buffer pool

With the database activity views, you can examine DL/I call and I/O event information at the level of the problem that is occurring. You can pick the view that corresponds to the type of information you want and the level at which you want to see the information.

**Note**

Only examples of real-time versions of views are used.

If a view grouped by IMS is nearly identical to a view grouped by data sharing group, only the view grouped by IMS is described.

To learn more about a view that is not described in this chapter, access the view by typing its name on the COMMAND line. Then position the cursor on the view name (in the window information line) and press the Help key.

Table 21 on page 418 lists the views that group information by IMS.

Table 21: Database activity views that group information by IMS system

<table>
<thead>
<tr>
<th>View</th>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Activity for IMS Systems, real time</td>
<td>IDASSUMR</td>
<td>“Database Activity for IMS Systems view (IDASSUMR)” on page 423</td>
</tr>
<tr>
<td>Database Activity for IMS Systems, interval</td>
<td>IDASSUM</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity Detail for an IMS System, real time</td>
<td>IDASDTLR</td>
<td>“Database Activity Detail for an IMS System view (IDASDTLR)” on page 425</td>
</tr>
<tr>
<td>View</td>
<td>Name</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Database Activity Detail for an IMS System, interval</td>
<td>IDASDTL</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity for Logical Databases (IMS Systems), real time</td>
<td>IDALSUMR</td>
<td>“Database Activity for Logical Databases (IMS Systems) view (IDALSUMR)” on page 426</td>
</tr>
<tr>
<td>Database Activity for Logical Databases (IMS Systems), interval</td>
<td>IDALSUM</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Physical Databases (IMS Systems), real time</td>
<td>IDAPSUMR</td>
<td>“Database I/O Activity for Physical Databases (IMS Systems) view (IDAPSUMR)” on page 427</td>
</tr>
<tr>
<td>Database I/O Activity for Physical Databases (IMS Systems), interval</td>
<td>IDAPSUM</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Databases/ Volumes (IMS Systems), real time</td>
<td>IDAXSUMR</td>
<td>“Database I/O Activity for Databases Volumes (IMS Systems) view (IDAXSUMR)” on page 429</td>
</tr>
<tr>
<td>Database I/O Activity for Databases/ Volumes (IMS Systems), interval</td>
<td>IDAXSUM</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Volumes (IMS Systems), real time</td>
<td>IDAVSUMR</td>
<td>“Database I/O Activity for Volumes (IMS Systems) view (IDAVSUMR)” on page 430</td>
</tr>
<tr>
<td>Database I/O Activity for Volumes (IMS Systems), interval</td>
<td>IDAVSUM</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity Detail for a VSAM Buffer Pool (IMS Systems), real time</td>
<td>IDABVDTR</td>
<td>“Database Activity Detail for a VSAM Buffer Pool (IMS Systems) view (IDABVDTR)” on page 431</td>
</tr>
<tr>
<td>Database Activity Detail for a VSAM Buffer Pool (IMS Systems), interval</td>
<td>IDABVDTL</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity Detail for an OSAM Buffer Pool (IMS Systems), real time</td>
<td>IDABODTR</td>
<td>“Database Activity Detail for an OSAM Buffer Pool (IMS Systems) view (IDABODTR)” on page 432</td>
</tr>
<tr>
<td>Database Activity Detail for an OSAM Buffer Pool (IMS Systems), interval</td>
<td>IDABODTL</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for VSAM Buffer Pools (IMS Systems), real time</td>
<td>IDABVSMR</td>
<td>“Database I/O Activity for VSAM Buffer Pools (IMS Systems) view (IDABVSMR)” on page 433</td>
</tr>
<tr>
<td>Database I/O Activity for VSAM Buffer Pools (IMS Systems), interval</td>
<td>IDABVSM</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for OSAM Buffer Pools (IMS Systems), real time</td>
<td>IDABOSMR</td>
<td>“Database I/O Activity for OSAM Buffer Pools (IMS Systems) view (IDABOSMR)” on page 434</td>
</tr>
</tbody>
</table>
### Table 22 on page 420 lists the views that group information by data sharing group.

<table>
<thead>
<tr>
<th>View</th>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database I/O Activity for OSAM Buffer Pools (IMS Systems), interval</td>
<td>IDABOSM</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity for Data Sharing Groups, real time</td>
<td>IDAGSUMR</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity for Data Sharing Groups, interval</td>
<td>IDAGSUM</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity Detail for a Data Sharing Group, real time</td>
<td>IDAGDTLR</td>
<td>“Database Activity Detail for a Data Sharing Group view (IDAGDTLR)” on page 435</td>
</tr>
<tr>
<td>Database Activity Detail for a Data Sharing Group, interval</td>
<td>IDAGDTL</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity for Logical Databases (Data Sharing Groups), real time</td>
<td>IDALGSMR</td>
<td>None</td>
</tr>
<tr>
<td>Database Activity for Logical Databases (Data Sharing Groups), interval</td>
<td>IDALGSM</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Physical Databases (Data Sharing Groups), real time</td>
<td>IDAPGSMR</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Physical Databases (Data Sharing Groups), interval</td>
<td>IDAPGSM</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Databases/ Volumes (Data Sharing Groups), real time</td>
<td>IDAXGSMR</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Databases/ Volumes (Data Sharing Groups), interval</td>
<td>IDAXGSM</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Volumes (Data Sharing Groups), real time</td>
<td>IDAVGSMR</td>
<td>None</td>
</tr>
<tr>
<td>Database I/O Activity for Volumes (Data Sharing Groups), interval</td>
<td>IDAVGSM</td>
<td>None</td>
</tr>
</tbody>
</table>

**Tip**
To access online Help for a view, position the cursor on the view name (in the window information line) and press the **Help** key. To access help for a field, position the cursor on the field and press the **Help** key.
Access the IMS database activity views

You can access a filtered version of the database activity views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- DBCTL Operations Menu (EZDOPSR)
- DBCTL DBA Easy Menu (EZIDBA)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering DBACTVTY on the COMMAND line and then selecting a view from the list of database activity views.

For more specific information about hyperlinks to the database activity views, see the sections that describe the views.

IMS database activity views commands

The IMS database activity views offer primary and line commands.

Primary commands

The following primary commands are available on the IDA* views:

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPD</td>
<td>Create or modify buffer pools</td>
</tr>
<tr>
<td></td>
<td>The command displays the Create/Update Buffer Pool Definitions dialog. Use the dialog to create or edit the buffer pool definitions in the DFSDFxxx member that was used during the startup of IMS.</td>
</tr>
<tr>
<td></td>
<td>You can modify, delete, or add new VSAM or OSAM buffer pool definitions. An IMS type-2 UPDATE POOL command is issued to install the definitions. This command is supported for IMS V12 and later only.</td>
</tr>
</tbody>
</table>
### Primary command  |  Function
---|---
IMSCMDS | Issue IMS commands
The command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

---

## Line commands

The U line command is available on the IDA* views.

The command displays the Create/Update Buffer Pool Definitions dialog. Use the dialog to create or edit the buffer pool definitions in the DFSDF.xxx member identified in the row on which you issued the command.

You can modify, delete, or add new VSAM or OSAM buffer pool definitions. An IMS type-2 UPDATE POOL command is issued to install the definitions.

*Note*
This command is supported for IMS V12 and later only.

## Analyze an IMS subsystem

To analyze one or more specific IMS subsystems, choose the IMS subsystem with the CONtext command.

Then begin with the Database Activity for IMS Systems view (IDASSUMR for real-time data or IDASSUM for interval data).

You can hyperlink from an IMS Name in the IDASSUM/R view to access the Database Activity Detail for an IMS System view (IDASDTLR for real-time data or IDASDTL for interval data), which provides the following information about the selected IMS subsystem:

- Number of I/Os per DL/I call
- Number of databases with DL/I calls
- Number of databases with I/O in the sample period
- Number of volumes with I/O in the sample period
You can use the information in the IDASDTL/R view to interpret the averages, rates, and totals reported in other views.

You can also analyze an individual IMS by hyperlinking from fields in the IDASSUM/R view to directly access related information in other database activity views.

### Analyze a data sharing group

To analyze a data sharing group, begin with the Database Activity Detail for a Data Sharing Group view (IDAGDTRLR for real-time data or IDAGDTRL for interval data).

You can hyperlink to the views from the IMS SSI Easy Menu (EZISSI or EZISSIR).

To analyze multiple data sharing groups, begin with the Database Activity for Data Sharing Groups view (IDAGSUMR for real-time data or IDAGSUM for interval data).

You can hyperlink from highlighted fields in the IDAGDTRL/R and IDAGSUM/R views to access other database activity views that show related information.

**Tip**  
To access accurate information for a data sharing group, set your context to include all IMS subsystems defined in that share group. To set context, use the CONtext command in one of the EZ menus, such as EZIMS or EZISSI, before you access a specific database activity view.

If you do not know which context name to use, you can try using CONtext ALL; the command will display information from every accessible IMS subsystem, but it may include IMS subsystems that are not part of your data sharing group.

### Database Activity for IMS Systems view (IDASSUMR)

The Database Activity for IMS Systems view (IDASSUMR) provides information about database I/O activity and DL/I calls for one or more IMS systems.

You can use the IDASSUMR view to analyze I/O information related to logical databases. The view helps you recognize and solve N-way data sharing problems resulting from I/O contention or buffer cross-invalidation, and it shows DL/I call and I/O event totals, rates, and average times for one or more IMS subsystems.
The IDASSUMR view reports DEDB activity if the Event Collector parameter DBFPLVL is set to collect DEDB activity, but it does not report MSDB or GSAM database activity or activity caused by background write.

You can hyperlink to the IDASSUMR view from the:

- **Number of IMS Systems** field in the IDAGDTLR view
- **IMS Name** field in the IDAGSUMR view

**Figure 269: Database Activity for IMS Systems view (IDASSUMR)**

| 15APR2007 12:12:42 ----- MainView WINDOW INTERFACE (Vx.x.xx) ----------- COMMAND ====> SCROLL ====> PAGE |
| Curr Win ====> 1 Alt Win ====> | 15APR2007 12:12:42 ===MVIMS===D===1 |
| IMS Call Call Call I/O I/O Read Read Write Write OSAM XI |
| Name ShrGrp Rate AVG %I/O Rate AVG Rate AVG Rate AVG RdRate |
| IMSxxx IMSWAY 46.1 0.0012 90.7 48.8 0.001 48.8 0.001 0.0 0.001 0 |

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS Name</td>
<td>Database Activity Detail for an IMS System view (IDASDTLR), which provides detailed information for the selected IMS subsystem</td>
</tr>
<tr>
<td>Data ShrGrp</td>
<td>Database Activity Detail for a Data Sharing Group view (IDAGDTLR), which provides information about database I/O activity and DL/I calls for the selected IMS subsystem</td>
</tr>
<tr>
<td>Call Rate</td>
<td>Database Activity for Logical Databases (IMS Systems) view (IDALSUMR), which shows the DL/I call and I/O statistics at the logical database level for the selected IMS subsystem</td>
</tr>
<tr>
<td>I/O Rate</td>
<td>Database I/O Activity for Physical Databases (IMS Systems) view (IDAPSUMR), where you can see the I/O statistics at the physical database level for the selected IMS subsystem</td>
</tr>
<tr>
<td>VSAMPoolHitRatio</td>
<td>Database I/O Activity for VSAM Buffer Pools (IMS Systems) view (IDABVSMR), which provides database I/O activity information for the selected IMS subsystem, summarized at the VSAM buffer pool level</td>
</tr>
<tr>
<td>OSAMPoolHitRatio</td>
<td>Database I/O Activity for OSAM Buffer Pools (IMS Systems) view (IDABOSMR), which provides database I/O activity information for the selected IMS subsystem, summarized at the OSAM buffer pool level</td>
</tr>
</tbody>
</table>
Database Activity Detail for an IMS System view (IDASDTLR)

The Database Activity Detail for an IMS System view provides detailed information about database I/O activity and DL/I calls for a selected IMS subsystem. Statistics are summarized for the selected system.

You can use the IDASDTLR view to recognize and solve N-way data sharing problems resulting from I/O contention or buffer cross-invalidation, and it shows DL/I call and I/O event totals, rates, and average times.

The IDASDTLR view also provides the following information, which is not included in other database activity views.

- Number of I/Os per DL/I call
- Number of seconds (or minutes, if interval) during which the data has been collected
- Number of databases with DL/I calls
- Number of databases with I/O in the sample period
- Number of volumes with I/O in the sample period

You can use the information in the IDASDTLR view to interpret the averages, rates, and totals reported in other views.

The IDASDTLR view reports DEDB database activity if the Event Collector parameter DBFPLVL is set to collect DEDB activity, but it does not report MSDB and GSAM database activity or activity caused by background write.

You can hyperlink to the IDASDTLR view from the:

- Database Activity, Overview option in the IMS Easy Menu (EZIMSR) and the IMS Fast Menu (EZIFASTR)
- Database Activity Average fields in the DBCTL Dashboard Menu (DBCMDASH)
**IMS Name** field in the IDASSUMR view

**Figure 270: Database Activity Detail for an IMS System view (IDASDTLR)**

If a database has excessive I/O, a buffer pool may be too small. You can hyperlink from the **IDASDTL VSAM Bufr Pool Hit Ratio** and the **OSAM Bufr Pool Hit Ratio** fields to access information you can use to determine whether you need to increase the size of the buffer pool.

**Database Activity for Logical Databases (IMS Systems) view (IDALSUMR)**

The Database Activity for Logical Databases (IMS Systems) view (IDALSUMR) provides statistics about the activity of logical databases.

You can use the IDALSUMR view to analyze database I/O and DL/I call information related to logical databases and to recognize and solve N-way data sharing problems resulting from badly organized databases, buffer cross-invalidations, or I/O contention.

The IDALSUMR view shows totals, rates, and averages for DL/I calls and I/O events. Statistics are for each open database associated with a PCB (program control block) against which DL/I calls have been made.
The database named in a PCB can be either a physical database or a logical database. Rows in the IDALSUMR view that report on logical databases may include I/O statistics for one or more physical databases.

The IDALSUMR view reports DEDB database activity if the Event Collector parameter DBFPLVL is set to collect DEDB activity, but it does not report MSDB and GSAM database activity or activity caused by background write.

You can hyperlink to the IDALSUMR view from the:

- **Databases with calls** field in the IDASDTLR view
- **Call Rate** field in the IDASSUMR view

**Figure 271: Database Activity for Logical Databases (IMS systems) view (IDALSUMR)**

```
15APR2007   12:19:09 ----- MainView WINDOW INTERFACE (Vx.x.xx) -----------
COMMAND ===>
CURR WIN ===>
>W1 =IDALSUMR=========(ALL======*=======)15APR2007==12:19:09====MVIMS====D====1
PCB      Physical Call Call    Call   Call  I/O  I/O   Read Read  Write Write
DBNAME   DBNAME   Rate AVG     %I/O   I/Os  Rate AVG   Rate AVG   Rate  AVG
DB1H     DB1H     125. 0.00064 20.3    0.10 13.7 0.001 11.9 0.001   1.8 0.001
```

No hyperlinks are available on the view.

## Database I/O Activity for Physical Databases (IMS Systems) view (IDAPSUMR)

The Database I/O Activity for Physical Databases (IMS Systems) view (IDAPSUMR) provides information about database I/O activity at the physical database level.

You can use the IDAPSUMR view to analyze I/O information related to physical databases and to recognize and solve N-way data sharing problems resulting from badly organized databases, I/O contention, buffer pool sizes and assignments, or buffer cross-invalidation. The view shows I/O event totals, rates, and average times for open databases, and buffer pool information.

The IDAPSUMR view reports DEDB database activity if the Event Collector parameter DBFPLVL is set to collect DEDB activity, but it does not report MSDB and GSAM database activity or activity caused by background write.
For VSAM databases, the **Num Vols** field in some cases may not reflect the actual number of volumes occupied by a specific database. The number of volumes shown can be less than the actual number of volumes if the database has been extended into more than one new volume and has not subsequently been closed and reopened. If a database is extended into only one new volume, the value shown in the **Num Vols** field will be accurate, even if that database has not been subsequently closed and reopened.

You can hyperlink to the IDAPSUMR view from the:

- Database Activity, Databases option in the IMS Fast Menu (EZIFASTR)
- Database I/O Activity option in the DBCTL DBA Easy Menu (EZIDBA)
- **Databases with I/O** field in the IDASDTLR view
- **I/O Rate** field in the IDASSUMR view
- **Physical DBNAME** field in the IDALSUMR view

**Figure 272: Database I/O Activity for Physical Databases (IMS systems) view (IDAPSUMR)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical DBNAME</td>
<td>Database Overview view (IDBSUMR), which shows database status and provides commands for database management</td>
</tr>
<tr>
<td>Num Vols</td>
<td>Database I/O Activity for Databases/Volumes (IMS Systems) view (IDAXSUMR), where you can see the statistics broken down by volume and VSAM component and determine more specifically where the I/O is occurring within a specific volume or VSAM component</td>
</tr>
<tr>
<td>Pool ID</td>
<td>Database Activity Detail for a VSAM Buffer Pool (IMS Systems) view (IDABVDTR) for VSAM databases or Database Activity Detail for an OSAM Buffer Pool (IMS Systems) view (IDABODTR) for OSAM databases, which show buffer pool activity for the selected buffer pool</td>
</tr>
</tbody>
</table>
The Database I/O Activity for Databases/Volumes (IMS Systems) view (IDAXSUMR) provides information about database I/O activity at the database volume level and the VSAM component level.

You can use the IDAXSUMR view to analyze I/O statistics as they relate to the physical database volumes, and in the case of VSAM, as they relate to specific VSAM database components. You can also use the view to recognize and solve N-way data sharing problems resulting from badly organized databases, I/O contention, buffer pool sizes and assignments, or buffer cross-invalidation.

IDAXSUMR summarizes information by database, with one row for each volume that the database occupies. A database that occupies more than one volume will have as many lines as it has volumes. The view shows I/O totals, rates, average times, and buffer pool information.

The IDAXSUMR view reports DEDB database activity if the Event Collector parameter DBFPLVL is set to collect DEDB activity, but it does not report MSDB and GSAM database activity or activity caused by background write.

**Note**
For VSAM databases, I/O against new extents will not be attributed to a specific volume until the extended database has been closed and reopened. Until the database has been closed and reopened, the I/O will be reported as OTHER in the VolSer field.

You can hyperlink to the IDAXSUMR view from the:

- **Database Activity I/O Rate** fields in the IMS Dashboard view (IMSDASSR)
- Database Activity options in the DBCTL Dashboard Menu (DBCMDASH)
- **Physical DBNAME** field in the IDAVSUMR and IDABSUMR views
- **Databases with I/O** field in the IDABOSMR, IDABVDTR, IDABODTR views
- **Num Vols** field in the IDAPSUMR view

**Figure 273: Database I/O Activity for Databases/Volumes (IMS systems) view (IDAXSUMR)**

|---------------------|-----------------------------------|---------------------|-------|---|---|

<table>
<thead>
<tr>
<th>Physical Database Area/</th>
<th>Read</th>
<th>Read</th>
<th>Write</th>
<th>Write</th>
<th>Pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBNAME</td>
<td>Type</td>
<td>Partition</td>
<td>DDNAME</td>
<td>Type</td>
<td>VOLSER</td>
</tr>
<tr>
<td>DB1H</td>
<td>PHIDAM</td>
<td>DB1H1</td>
<td>DB1H1A</td>
<td>OSAM</td>
<td>BAB321</td>
</tr>
<tr>
<td>DB1H</td>
<td>PHIDAM</td>
<td>DB1H2</td>
<td>DB1H2A</td>
<td>OSAM</td>
<td>BAB321</td>
</tr>
<tr>
<td>DB1H</td>
<td>PINDEX</td>
<td>DB1H2X</td>
<td>VSM-D</td>
<td>BAB305</td>
<td>3.7</td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical DBNAME</td>
<td>Database Overview view (IDBSUMR), which shows database status and provides commands for database management</td>
</tr>
<tr>
<td>VOLSER</td>
<td>Database I/O Activity for Volumes (IMS Systems) view (IDAVSUMR), where you can see statistics for all I/O to this volume, not just to this database, and where you can see how much of the I/O total is occurring to the volume</td>
</tr>
<tr>
<td>Pool ID</td>
<td>Database Activity Detail for a VSAM Buffer Pool (IMS Systems) view (IDABVDTR) for VSAM databases or Database Activity Detail for an OSAM Buffer Pool (IMS Systems) view (IDABODTR) for OSAM databases, which show buffer pool activity for the selected buffer pool</td>
</tr>
</tbody>
</table>

**Database I/O Activity for Volumes (IMS Systems) view (IDAVSUMR)**

The Database I/O Activity for Volumes (IMS Systems) view (IDAVSUMR) provides database I/O activity information at the volume level.

You can use the IDAVSUMR view to analyze I/O information related to the volumes and to recognize and solve N-way data sharing problems resulting from badly organized databases, I/O contention, buffer pool sizes and assignments, or buffer cross-invalidation.

IDAVSUMR shows information about the database I/O activity that occurs to each volume. For each volume, it identifies I/O totals, rates, and average times for open databases.

The IDAVSUMR view reports DEDB database activity if the Event Collector parameter DBFPLVL is set to collect DEDB activity, but it does not report MSDB and GSAM database activity or activity caused by background write.
Note
For VSAM databases, I/O against new extents will not be attributed to a specific volume until the extended database has been closed and reopened. Until the database has been closed and reopened, the I/O will be reported as OTHER in the VolSer field.

You can hyperlink to the IDAVSUMR view from the Database Activity, Volumes option in the IMS Fast Menu (EZIFASTR), from the Volumes with I/O field in the IDASDTR view, and from the VolSER field in the IDAXSUMR view.

Figure 274: Database I/O Activity for Volumes (IMS systems) view (IDAVSUMR)

<table>
<thead>
<tr>
<th>15APR2007 12:26:01</th>
<th>MainView WINDOW INTERFACE (Vx.y.xx)</th>
<th>COMMAND ====&gt;</th>
<th>SCROLL ====&gt;</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>W1 =IDAVSUMR=========(ALL======*=======)15APR2007==12:26:00====MVIMS=======1===2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical</th>
<th>Read Read</th>
<th>Write Write</th>
<th>Nonkey Key</th>
<th>Nonkey Nonkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAB321 DB1H</td>
<td>DB1H1***</td>
<td>7.7</td>
<td>0.003</td>
<td>1.7</td>
</tr>
<tr>
<td>BAB305 DB1H</td>
<td>DB1H1X</td>
<td>3.9</td>
<td>0.000</td>
<td>0.0</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Database Activity Detail for a VSAM Buffer Pool (IMS Systems) view (IDABVDTR)

The Database Activity Detail for a VSAM Buffer Pool (IMS Systems) view provides information about a selected VSAM buffer pool, including definitions, specifications, utilization, and database I/O activity.

The IDABVDTR view shows buffer pool activity levels, hit ratios, the average life of a block in a buffer pool, hiperspace space utilization, and I/O statistics. The I/O statistics are for the open databases using the specified buffer pool.

IDABVDTR identifies the databases that have had activity against the buffer pool and the relative I/O expense for database blocks being read, reread, or written.

You can use the IDABVDTR view to optimize a buffer pool definition by checking to see if a pool needs more buffers. The view shows the current relationships of databases to the buffer pool and their current performance, and you can use that information to decide which databases need to be assigned to a separate pool.

After you make buffer pool changes, you can use the TIME command to compare your results with the results from a prior time.

You can hyperlink to the IDABVDTR view from the:
- VSAM Pool ID field in the IDABVSMR view
- Pool ID field in the IDAPSUMR and IDAXSUMR views

Figure 275: Database Activity Detail for a VSAM Buffer Pool (IMS systems) view (IDABVDTR)

07SEP2011 15:02:10 ------ MainView WINDOW INTERFACE (V6.0.00) 07SEP2011 15:02:10 ------ MVIMS 07SEP2011 15:02:10 ------ MVIMS

COMMAND ===> ____________________________ SCROLL ===> CSR

CURR WIN ===> 1        ALT WIN ===> ___

>W1 =IDABVDTR==========I12J46CT=*========07SEP2011==15:02:10====MVIMS==D====1

BUFFER POOL DEFINITION... Sample Seconds....... 5
VSAM Pool ID............... XXXX IMS ID........... I12J
VSAM Pool Number......... 3 IMS Name........... I12J46CT
Pool Type................ DATA MVS Name......... SJSC
Buffer Fix Options....... BFR,BLK Data Sharing Group..... NONE
Buffer Size.............. 2048 Databases with I/O.... IVPDB***
Number Buffers........... 5 DD Names........... DFSIVD**
Number Hiperspace Buffers 0 VOLSERs........... BAB3**
Proclib Member........... DFSVSM1J
Proclib Section.......... N/A

BUFFER POOL STATISTICS... RELATED I/O STATISTICS.
Hit Ratio................ 66.667 Read I/O Rate....... 0.971
Average Time In Pool..... 5.15 Write I/O Rate....... 1.553
CI Search Rate........... 2.913 Sync Write Rate... 0.971
Retrieve by Key Rate..... 0.777 Background Write Rate.. 0.583
Retrieve by RBA Rate..... 5.049 Buffer Steal Write Rate 0.000
LRECL Alter Rate......... 0.777
ESDS LRECL Insert Rate... 0.000
KSDS LRECL Insert Rate... 0.388

No hyperlinks are available on the view.

Database Activity Detail for an OSAM Buffer Pool (IMS Systems) view (IDABODTR)

The Database Activity Detail for an OSAM Buffer Pool (IMS Systems) view (IDABODTR) provides information about a selected OSAM buffer pool, including definitions, specifications, utilization, and database I/O activity.

The IDABODTR view shows buffer pool activity levels, hit ratios, the average life of a block in a buffer pool, OSAM cache utilization, sequential buffering utilization, and I/O statistics. The I/O statistics are for the open databases that are using the specified buffer pool.

IDABODTR identifies the databases that have had activity against the buffer pool and the relative I/O expense for database blocks being read, reread, or written.

You can use the IDABODTR view to optimize a buffer pool definition by checking to see if a pool needs more buffers. The view shows the current relationships of databases to the buffer pool and their current performance, and you can use that information to decide which databases need to be assigned to a separate pool.
After you make buffer pool changes, you can use the TIME command to compare your results with the results from a prior time.

You can hyperlink to the IDABODTR view from the OSAM Pool ID field in the IDABOSMR view and from the Pool ID field in the IDAPSUMR and IDAXSUMR views.

**Figure 276: Database Activity Detail for an OSAM Buffer Pool (IMS systems) view (IDABODTR)**

<table>
<thead>
<tr>
<th>07SEP2011 15:03:54</th>
<th>MainView WINDOW INTERFACE (V6.0.00)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURR WIN</td>
<td>1</td>
</tr>
<tr>
<td>ALT WIN</td>
<td>___</td>
</tr>
<tr>
<td>&gt;W1 =IDABODTR====I12J46CT=*========07SEP2011==15:03:54====MVIMS=====D=====1</td>
<td></td>
</tr>
<tr>
<td>BUFFER POOL DEFINITION..</td>
<td>Sample Seconds........</td>
</tr>
<tr>
<td>OSAM Pool ID............</td>
<td>OSM2</td>
</tr>
<tr>
<td>Buffer Fix Options......</td>
<td>BFR,BLK</td>
</tr>
<tr>
<td>Buffer Size.............</td>
<td>2048</td>
</tr>
<tr>
<td>Number Buffers...........</td>
<td>5</td>
</tr>
<tr>
<td>Proclib Member..........</td>
<td>DFSVSM1J</td>
</tr>
<tr>
<td>Proclib Section.........</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>BUFFER POOL STATISTICS..</td>
<td>RELATED I/O STATISTICS.</td>
</tr>
<tr>
<td>Hit Ratio...............</td>
<td>57.143</td>
</tr>
<tr>
<td>Average Time In Pool....</td>
<td>3.283</td>
</tr>
<tr>
<td>Wait for IDENT Rate...</td>
<td>0.000</td>
</tr>
<tr>
<td>Wait for Read Rate...</td>
<td>0.000</td>
</tr>
<tr>
<td>Wait for Write Rate...</td>
<td>0.000</td>
</tr>
<tr>
<td>Block Search Rate......</td>
<td>3.553</td>
</tr>
<tr>
<td>Block Create Rate......</td>
<td>0.000</td>
</tr>
<tr>
<td>Buffer Search Rate......</td>
<td>3.215</td>
</tr>
<tr>
<td>Buffer Alter Rate......</td>
<td>1.015</td>
</tr>
<tr>
<td>Purge Call Rate.........</td>
<td>0.338</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Database I/O Activity for VSAM Buffer Pools (IMS Systems) view (IDABVSMR)**

The Database I/O Activity for VSAM Buffer Pools (IMS Systems) view (IDABVSMR) provides database I/O activity information for VSAM databases summarized at the buffer pool level.

You can use the IDABVSMR view to analyze I/O information related to buffer pools and to recognize and solve N-way data sharing problems resulting from badly organized databases, I/O contention, buffer pool sizes and assignments, or buffer cross-invalidation.

IDABVSMR shows I/O totals, rates, and average times for all open VSAM databases.

You can hyperlink to the IDABVSMR view from the:
- **VSAM Buffer Pools** option in the IMS Fast Menu (EZIFA STR) and the DBCTL DBA Easy Menu (EZIDBA)
- **VSAM Wrst Hit** and **Buf Steal** fields in the IMS Dashboard view (IMSDASSR)
- **VSAM Bufr Pool Hit Ratio** field in the IDASDTLR view
- **Worst VSAM Pool Hit Ratio** field in the IDAGDTLR view
- **VSAMPool HitRatio** field in the IDAGSUMR and IDASSUMR views

**Figure 277: Database I/O Activity for VSAM Buffer Pools (IMS systems) view (IDABVSMR)**

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSAM Pool ID</td>
<td>Database Activity Detail for a VSAM Buffer Pool (IMS Systems) view (IDABVDTR), where you can see a detailed view of the same buffer pool</td>
</tr>
<tr>
<td>DB’s with I/O</td>
<td>Database I/O Activity for Databases/Volumes (IMS Systems) view (IDAXSUMR), where you can see the statistics broken down by database volume and VSAM component and where you can see more specifically where the I/O is occurring within a specific volume or VSAM component</td>
</tr>
</tbody>
</table>

**Database I/O Activity for OSAM Buffer Pools (IMS Systems) view (IDABOSMR)**

The Database I/O Activity for OSAM Buffer Pools (IMS Systems) view (IDABOSMR) provides database I/O activity information for OSAM databases, summarized at the buffer pool level.

You can use the IDABOSMR view to analyze I/O information related to buffer pools. The view helps you recognize and solve N-way data sharing problems.
resulting from badly organized databases, I/O contention, buffer pool sizes and assignments, or buffer cross-invalidation.

IDABOSMR shows I/O totals, rates, and average times for all open OSAM databases.

You can hyperlink to the IDABOSMR view from the:

- OSAM Buffer Pools option in the IMS Fast Menu (EZIFASTR) and the DBCTL DBA Easy Menu (EZIDBA)
- OSAM Wrst Hit and Buf Steal fields in the IMS Dashboard view (IMSDASSR)
- OSAM Bufr Pool Hit Ratio field in the IDASDTLR view
- Worst OSAM Pool Hit Ratio field in the IDAGDTLR view
- OSAMPool HitRatio field in the IDAGSUMR and IDASSUMR views

Figure 278: Database I/O Activity for OSAM Buffer Pools (IMS systems) view (IDABOSMR)

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSAM Pool ID</td>
<td>Database Activity Detail for an OSAM Buffer Pool (IMS Systems) view (IDABODTR), where you can see a detailed view of the selected buffer pool</td>
</tr>
<tr>
<td>Databases with I/O</td>
<td>Database I/O Activity for Databases/Volumes (IMS Systems) view (IDAXSUMR), where you can see the statistics broken down by database volume and VSAM and where you can see more specifically where the I/O is occurring within a specific volume or VSAM component</td>
</tr>
</tbody>
</table>

Database Activity Detail for a Data Sharing Group view (IDAGDTLR)

The Database Activity Detail for a Data Sharing Group view (IDAGDTLR) provides information about database I/O activity and DL/I calls for a data sharing group.
You can use the IDAGDTLR view to analyze I/O information related to logical and physical databases. The view helps you recognize and solve N-way data sharing problems resulting from I/O contention or buffer cross-invalidation, and it shows DL/I call and I/O event totals, rates, and average times.

The IDAGDTLR view reports DEDB activity if the Event Collector parameter DBFPLVL is set to collect DEDB activity, but it does not report MSDB or GSAM database activity or activity caused by background write.

For more information, view the Quick Course MainView for IMS - Region and Database Activity. You must have a BMC Support ID to view the Quick Course.

You can hyperlink to the IDAGDTLR view from the

- Database Activity option in the IMS SSI Easy Menu (EZISSIR) and the DBCTL Operations Menu (EZDOPSR)
- System DB Activity option in the DBCTL DBA Easy Menu (EZIDBA)
- Data ShrGrp field in the IDASSUMR view

**Note**

Only IMS subsystems in your context are included in the count in the IDAGDTL/R Number of IMS Systems field. If any of the IMS subsystems in your data sharing group are not included in your context, the data in the field will be incomplete.

Figure 279: Database Activity Detail for a Data Sharing Group view (IDAGDTLR)
No hyperlinks are available on the view.
Manage shared message queues

Use the CQS (Common Queue Service) information views to manage and solve problems with IMS shared message queuing.

Shared message queues management overview

With the CQS views, you can determine:

- CQS configuration (ISQSUMR and ISQDTLR views)
- Total messages (ISQSTR view)
- Which queue types are having problems (ISQQTR view)
- Which queues are building up (ISQINR and ISQOUTR views)

You can easily:

- Check configuration and status, such as how the structures and CQS are defined for the IMS (ISQSUMR or ISQDTLR view)
- Check performance information, such as the number of tasks for IMS that are waiting for services from a CQS (ISQDTLR view)
- Drill down to see which messages are on the shared queues (ISQSTR or ISQQTR view)

Message information is provided by structure type, queue type, and individual queue name, which helps you determine the status of the shared queues and solve problems in diverse situations, such as when a shared message queue structure is in rebuild or overflow.
View message queues and messages

The following CQS views are provided:

- “Shared Queues Group IMS Structure view (ISSIQUES)” on page 441
- “Shared Message Queue Summary view (ISQSUMR)” on page 441
- “Shared Message Queue Detail view (ISQDTLR)” on page 442
- “Messages by Structure view (ISQSTR)” on page 443
- “Messages by Structure with Message Ages view (ISQSTAR)” on page 444
- “Messages by Queue Type view (ISQQTR)” on page 444
- “Messages by Queue Type with Message Ages view (ISQQTAR)” on page 445
- “Input Messages by Queue Name view (ISQINR)” on page 446
- “Input Messages by Queue Name with Message Ages view (ISQINAR)” on page 447
- “Output Messages by Queue Name view (ISQOUTR)” on page 447
- “Output Messages by Queue Name with Message Ages view (ISQOUTAR)” on page 448
- “Messages by IMS Owner ID view (ISQOWNER)” on page 449
- “Messages by Queue Name view (ISQNAME)” on page 450
- “Queue Menu (ISQMR)” on page 451

**Tip**

To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.

You can access a filtered version of the CQS views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
IMS Operations Menu (EZIOPSR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list, or by entering CQS on the COMMAND line and then selecting a view from the list of CQS views.

For more specific information about hyperlinks to the CQS views, see the sections that describe the views.

### Shared Queues Group IMS Structure view (ISSIQUES)

The Shared Queues Group IMS Structure view provides an overview of the number and status of the IMS subsystems in each shared queues group.

The ISSIQUES view is summarized by shared queues group name. Each row shows the number of IMS subsystems in a shared queues group, the status of the IMS subsystems (asterisks if they have different statuses), and IMS names and types.

You can hyperlink to the ISSIQUES view from the Structures and Queues option in the IMS Easy Menu (EZIMS) and the IMS SSI Easy Menu (EZISSI) and from the SMQ Structures option in the IMS Fast Menu (EZIFAST).

#### Figure 280: Shared Queues Group IMS Structure view (ISSIQUES)

<table>
<thead>
<tr>
<th>Shared Queues Group Name</th>
<th>Number of IMS Systems</th>
<th>Status of IMS Systems</th>
<th>IMS Names</th>
<th>IMS Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFSXCFGP</td>
<td>4</td>
<td>Active</td>
<td>IMSxxx</td>
<td>TM/DB</td>
</tr>
<tr>
<td>DCSXCFGP</td>
<td>2</td>
<td>Inactive</td>
<td>IMSxxx</td>
<td>TM/DB</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

### Shared Message Queue Summary view (ISQSUMR)

Use the Shared Message Queue Summary view (ISQSUMR) to check status and other information about the shared message queue structures that your IMS accesses and the CQS that manages those structures.

The ISQSUMR view:
Displays both definitional and performance information

- Identifies the structure and overflow structure name, status, and type
- Shows the connection and registration tokens
- Shows whether the structure quiesces during rebuild (Wait for Rebuild attribute)
- Identifies the CQS ID, jobname, version, procedure, status, and backlog
- Shows number of sync blocks and the short and long message size
- Identifies IMS ID, IMS jobname, and operating system name

You can use the ISQSUMR view to determine what structures you are using, what structures you need to look at, and the condition of your structures (for instance, if a structure is waiting for rebuild or if there is a backlog).

After using the ISQSUMR view to get information about a structure, you can investigate further by displaying the Messages by Structure (ISQSTR), Messages by Queue Type (ISQQTR), and Messages by IMS Owner (ISQOWNER) views.

You can hyperlink to the ISQSUMR view from the **Shared Queues Group Name** field in the ISSIQUES view.

**Figure 281: Shared Message Queue Summary view (ISQSUMR)**

| 30MAR2009 09:12:46 ------- MainView WINDOW INTERFACE (V6.0.00) ----------- |
| COMMAND ===> | SCROLL ===> CSR |
| Curr WIN ===> 1 | Alt WIN ===> |
| >M1 =ISQSUMR======(ALL=====*=======)30MAR2009==09:12:25====MVIMS====D====0 |
| + Shared Message Queue Summary |
| Primary OverFlow Str Str Shared Q W-R IMS COS COS |
| Structure Name | Structure Name | Typ Stat Group Bld SSID Jobname Status- |
| IMS_CQS_EMH2 | IMS_CQS_EMHO2 | EMH AVAIL DFSXCFGP NO X91H IMSCQS7 ACTIV |
| IMS_CQS_MSG2 | IMS_CQS_MSGO2 | MSG AVAIL DFSXCFGP YES X91H IMSCQS7 ACTIV |

No hyperlinks are available on the view.

**Shared Message Queue Detail view (ISQDTLR)**

Use the Shared Message Queue Detail view (ISQDTLR) to check status and other information about a selected shared message queue structure and the CQS that manages the structure.

The ISQDTLR view:

- Displays both definitional and performance information
- Identifies the structure and overflow structure name, status, and type
- Shows the connection and registration tokens and whether the structure quiesces during rebuild (*Wait for Rebuild* field)

- Identifies the CQS ID, jobname, version, procedure, status, and backlog

- Shows number of sync blocks and the short and long message size

- Identifies IMS ID, IMS jobname, and operating system name

You can use the ISQDTLR view to determine the condition of your shared message queue structures (their status, whether they are waiting for rebuild, whether there is a backlog). After you use the view to check the condition of your shared message queue structures, you can investigate further by displaying the Messages by Structure (ISQSTR), Messages by Queue Type (ISQQTR), and Messages by IMS Owner (ISQOWNER) views.

You can hyperlink to the ISQDTLR view from the **Primary Structure Name** field in the ISQSUMR view.

**Figure 282: Shared Message Queue Detail view (ISQDTLR)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>View Name</th>
<th>Interface</th>
<th>Command</th>
<th>Scroll</th>
<th>Win</th>
<th>Alt Win</th>
</tr>
</thead>
<tbody>
<tr>
<td>30MAR2009</td>
<td>09:14:17</td>
<td>Shared Message Queue Structure Detail</td>
<td>MainView/Window Interface (V6.0.00)</td>
<td>M1 =ISQDTLR=ALL= MVIM=</td>
<td>CSR</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Primary Struc Name:</em> MV81A_EMHQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>CQS Backlog:</em> 36</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Overflow Struc Name:</em> MV81A_EMHQQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Sync Blks:</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Structure Type:</em> EMH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Structure Status:</em> AVAIL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Wait for Rebuild:</em> NO</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Short Msg Size:</em> 520</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Long Msg Size:</em> 5560</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>CQS Status:</em> ACTIVE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>CQS Jobname:</em> IBACOS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>CQS SID:</em> IBAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>CQS Proc Name:</em> IBACOS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>IMS Jobname:</em> I8A410CT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>IMS SID:</em> I8A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>MVS SID:</em> SJSC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Messages by Structure view (ISQSTR)**

The Messages by Structure view (ISQSTR) provides an overview of the contents of each shared message queue structure type.

The ISQSTR view is summarized by structure type. Each row shows the total number of messages queued for an individual structure type.

You can use the ISQSTR view to determine what type of structure you need to look at to see what is responsible for a buildup of messages.
You can hyperlink to the ISQSTR view from the Str Typ field in the ISQSUMR view.

**Figure 283: Messages by Structure view (ISQSTR)**

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>SCROLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCROLL</td>
<td>CSR</td>
</tr>
<tr>
<td>CURR WIN</td>
<td>1</td>
</tr>
<tr>
<td>ALT WIN</td>
<td></td>
</tr>
</tbody>
</table>

> M1 = ISQSTR ============== (ALL =========== * =======) 30MAR2009 = 09:18:55 = MVIMS = D = 0

**Stru Total Owner**

<table>
<thead>
<tr>
<th>Stru Type</th>
<th>IMSID</th>
<th>Date</th>
<th>Time</th>
<th>Date</th>
<th>Time</th>
<th>Shared Queues</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSGQ</td>
<td>4 (any)</td>
<td>hyperlink for date/time</td>
<td>DFSXCFGP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMHQ</td>
<td>1 (any)</td>
<td>hyperlink for date/time</td>
<td>DFSXCFGP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISQSTR Oldest Date</td>
<td>ISQSTAR view, which shows the date and timestamp of the oldest and newest messages queued on the selected structure type.</td>
</tr>
</tbody>
</table>

**Messages by Structure with Message Ages view (ISQSTAR)**

The Messages by Structure with Message Ages view provides a date and timestamp for the oldest and newest messages in the structure type selected in the ISQSTR view.

You can hyperlink to the ISQSTAR view from the Oldest Date field in the ISQSTR view.

**Figure 284: Messages by Structure with Message Ages view (ISQSTAR)**

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>SCROLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCROLL</td>
<td>CSR</td>
</tr>
<tr>
<td>CURR WIN</td>
<td>1</td>
</tr>
<tr>
<td>ALT WIN</td>
<td></td>
</tr>
</tbody>
</table>

> M1 = ISQSTAR ============== (ALL =========== * =======) 30MAR2009 = 09:20:34 = MVIMS = D = 0

**Stru Total Owner**

<table>
<thead>
<tr>
<th>Stru Type</th>
<th>IMSID</th>
<th>Date</th>
<th>Time</th>
<th>Date</th>
<th>Time</th>
<th>Group Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSGQ</td>
<td>4 (any)</td>
<td>15APR2007</td>
<td>11:21</td>
<td>15APR2007</td>
<td>12:02</td>
<td>DFSXCFGP</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

**Messages by Queue Type view (ISQQQTR)**

The Messages by Queue Type view (ISQQQTR) provides the same information as the ISQSTR view, but at a finer level of detail.
Shared message queue structure information is summarized by queue type. Each row shows the total number of messages queued for a specific queue type.

You can use the ISQQTR view to determine whether work is coming in, whether incoming work is getting processed, and if there are messages on the shared message queue waiting to be sent or dequeued.

You can hyperlink to the ISQQTR view from the Total Cnt field in the ISQSTR view.

**Figure 285: Messages by Queue Type view (ISQQTR)**

<table>
<thead>
<tr>
<th>Queue Type</th>
<th>Stru Type</th>
<th>Total</th>
<th>Owner</th>
<th>Oldest Date</th>
<th>Oldest Time</th>
<th>Newest Date</th>
<th>Newest Time</th>
<th>Group Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lterm Ready</td>
<td>MSGQ</td>
<td>5</td>
<td>IMSID</td>
<td>hyperlink</td>
<td>date/time</td>
<td>date/time</td>
<td>DFSXCFGP</td>
<td></td>
</tr>
<tr>
<td>Tran Suspend</td>
<td>MSGQ</td>
<td>8</td>
<td>IMSID</td>
<td>hyperlink</td>
<td>date/time</td>
<td>date/time</td>
<td>DFSXCFGP</td>
<td></td>
</tr>
<tr>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>864</td>
<td>IMSID</td>
<td>hyperlink</td>
<td>date/time</td>
<td>date/time</td>
<td>DFSXCFGP</td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISQQTR Oldest Date</td>
<td>ISQQTAR view, which shows the date and timestamp for the oldest and newest messages on all the queue types displayed in the ISQQTR view</td>
</tr>
</tbody>
</table>

**Messages by Queue Type with Message Ages view (ISQQTAR)**

Use the Messages by Queue Type with Message Ages view (ISQQTAR) to determine whether work is coming in, whether incoming work is getting processed, and if there are messages on the shared message queue waiting to be sent or dequeued.

**Figure 286: Messages by Queue Type with Message Ages view (ISQQTAR)**

<table>
<thead>
<tr>
<th>Queue Type</th>
<th>Stru Type</th>
<th>Total</th>
<th>Owner</th>
<th>Oldest Date</th>
<th>Oldest Time</th>
<th>Newest Date</th>
<th>Newest Time</th>
<th>Group Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lterm Ready</td>
<td>MSGQ</td>
<td>5</td>
<td>IMSID</td>
<td>hyperlink</td>
<td>date/time</td>
<td>date/time</td>
<td>DFSXCFGP</td>
<td></td>
</tr>
<tr>
<td>Tran Suspend</td>
<td>MSGQ</td>
<td>8</td>
<td>IMSID</td>
<td>hyperlink</td>
<td>date/time</td>
<td>date/time</td>
<td>DFSXCFGP</td>
<td></td>
</tr>
<tr>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>864</td>
<td>IMSID</td>
<td>hyperlink</td>
<td>date/time</td>
<td>date/time</td>
<td>DFSXCFGP</td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:
## Input Messages by Queue Name view (ISQINR)

The Input Messages by Queue Name view (ISQINR) provides the same information for input messages as the ISQQTAR view, but at a finer level of detail.

Information is summarized by individual queue. Each row shows the queue name, the queue type, and the total number of input messages on the queue.

**Note**

Whether you have specified a single target or set your target to include multiple IMS subsystems (for example, using the CONtext ALL command), the information returned to this view by the Coupling Facility will be the same. Because messages are kept by CQS rather than by individual IMS subsystems (and thus include messages associated with all IMS subsystems), all information shown in the view will be for all IMS subsystems.

You can hyperlink to the ISQINR view from the:

- **Hyperlink to Input Messages** field in the ISSIQUES view
- **Total Cnt** field in the ISQQTAR view

### Figure 287: Input Messages by Queue Name view (ISQINR)

<table>
<thead>
<tr>
<th>Queue Name</th>
<th>Queue Type</th>
<th>Structure Type</th>
<th>Total Cnt</th>
<th>Owner</th>
<th>ShrQueue</th>
<th>APPC or OTMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBGTRNMI</td>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>1 (any)</td>
<td>DFSXCFG P</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>TORIVER</td>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>1 (any)</td>
<td>DFSXCFG P</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>THDAMINO</td>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>3 (any)</td>
<td>DFSXCFG P</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>THDAMINO</td>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>2 (any)</td>
<td>DFSXCFG P</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>THIDMINQ</td>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>1 (any)</td>
<td>DFSXCFG P</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Input Messages by Queue Name with Message Ages view (ISQINAR)

The Input Messages by Queue Name with Message Ages view (ISQINAR) provides a date and timestamp for the oldest and newest input messages on selected queues.

You can hyperlink to the ISQINAR view from the:

- **Total Cnt** field in the ISQQQTAR view
- **Oldest Date** field in the ISQOWNER and ISQNAMER views
- Oldest/Newest Msg Ages option in the ISQMR Queue Menu

No hyperlinks are available on the view.

Output Messages by Queue Name view (ISQOUTR)

The Output Messages by Queue Name view (ISQOUTR) provides the same information for output messages as the ISQQTR view, but at a finer level of detail.

Information is summarized by individual queue name. Each row shows the total number of output messages queued and the queue type for that specific queue.

### Note

Whether you have specified a single target or set your target to include multiple IMS systems (for example, using the SSI CONtext ALL command), the information returned to this view by the Coupling Facility will be the same. Because messages are kept by CQS rather than by individual IMS subsystems (and thus include messages associated with all IMS subsystems), all information shown in the view will be for all IMS systems.

You can hyperlink to the ISQOUTR view from the:
Output Messages by Queue Name with Message Ages view (ISQOUTAR)

The Output Messages by Queue Name with Message Ages view (ISQOUTAR) provides a date and timestamp for the oldest and newest output messages on selected queues.

You can hyperlink to the ISQOUTAR view from the:

- **Total Cnt** field in the ISQQTR view
- **Hyperlink to Output Messages** field in the ISSIQUES view
- **Out Msgs** field in the OTMA Client and Server Summary view (IOTMASUM)
- **Output Msgs** field in the OTMA Group Tpipe Summary view (ITPIPSUM)

Figure 289: Output Messages by Queue Name view (ISQOUTR)

<table>
<thead>
<tr>
<th>Queue Name</th>
<th>Queue Type</th>
<th>Structure</th>
<th>Total Cnt</th>
<th>Owner</th>
<th>ShrQueue</th>
<th>APPC or OTMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBGLTRM1</td>
<td>Lterm Ready MSGQ</td>
<td></td>
<td>1</td>
<td>DFSXCFGP</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>GBGLTRM2</td>
<td>Lterm Ready MSGQ</td>
<td></td>
<td>1</td>
<td>DFSXCFGP</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>THA1OUTQ</td>
<td>Lterm Ready MSGQ</td>
<td></td>
<td>3</td>
<td>DFSXCFGP</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>THA3OUTQ</td>
<td>Lterm Ready MSGQ</td>
<td></td>
<td>2</td>
<td>DFSXCFGP</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>THIDOUTQ</td>
<td>Lterm Ready MSGQ</td>
<td></td>
<td>1</td>
<td>DFSXCFGP</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

Output Messages by Queue Name with Message Ages view (ISQOUTAR)

The Output Messages by Queue Name with Message Ages view (ISQOUTAR) provides a date and timestamp for the oldest and newest output messages on selected queues.

You can hyperlink to the ISQOUTAR view from the:

- **Total Cnt** field in the ISQQTR view
- **Oldest Date** field in the ISQOWNER and ISQNAMER views
- Oldest/Newest Msg Ages option in the ISQMR Queue Menu

Figure 290: Output Messages by Queue Name with Message Ages view (ISQOUTAR)
No hyperlinks are available on the view.

# Messages by IMS Owner ID view (ISQOWNER)

The Messages by IMS Owner view (ISQOWNER) provides the same information as the ISQQTR view, but at a finer level of detail.

Information is summarized by individual IMS owner ID. Each row shows the total number of messages queued and the queue type for a specific queue. You can hyperlink from the Oldest Date field of an LTERM queue to access the ISQOUTAR view, which shows the date and timestamp for the oldest and newest output messages on the queue. You can hyperlink from the Oldest Date field of a transaction queue to access the ISQINAR view, which shows the date and timestamp for the oldest and newest input messages on the queue.

**Note**

Whether you have specified a single target or set your target to include multiple IMS systems (for example, using the SSI CONtext ALL command), the information returned to this view by the Coupling Facility will be the same. Because messages are kept by CQS rather than by individual IMS subsystems (and thus include messages associated with all IMS subsystems), all information shown in the view will be for all IMS systems.

You can hyperlink to the ISQOWNER view from the Queues Owned by this IMS field in the ISQMR menu, from the Owner IMSID field in the ISQINR, ISQINAR, ISQOUTR, ISQOUTAR, and ISQNAMER views.

**Figure 291: Messages by IMS Owner ID view (ISQOWNER)**

<table>
<thead>
<tr>
<th>Owner IMSID</th>
<th>Queue Name</th>
<th>Type</th>
<th>Total Cnt</th>
<th>Oldest Date</th>
<th>Oldest Time</th>
<th>Newest Date</th>
<th>Newest Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS1</td>
<td>GBGTRNM1</td>
<td>Tran Ready</td>
<td>5</td>
<td>hyperlink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(any)</td>
<td>LTERM01</td>
<td>Lterm Ready</td>
<td>1</td>
<td>hyperlink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(any)</td>
<td>AAA1</td>
<td>Lterm Ready</td>
<td>1</td>
<td>hyperlink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(any)</td>
<td>AAA2</td>
<td>Lterm Ready</td>
<td>1</td>
<td>hyperlink</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(any)</td>
<td>LTERM03</td>
<td>Lterm Ready</td>
<td>1</td>
<td>hyperlink</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

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The Messages by Queue Name view (ISQNAMER) provides the same information as ISQQTR view, but with an even finer level of granularity.

Data is summarized by individual queue name. Each row shows the total number of messages queued and the queue type (LTERM Ready/Suspend, Tran Ready/Suspend, and so on) for that specific queue. The view also provides a date and timestamp for the oldest and newest messages in that queue. Associated IMS ID, operating system name, and IMS name are also identified.

**Note**
Whether you have specified a single target or set your target to include multiple IMS systems (for example, using the SSI CONtext ALL command), the information returned to this view by the Coupling Facility will be the same. Because messages are no longer kept by individual IMS subsystems, but by CQS instead (thus including messages associated with all IMS subsystems), all information shown in this view will be for all IMS subsystems.

For that reason, you will get more accurate data if you use this view in target mode. You can display specific target data within an SSI context by using CONtext single target name or the SCOpe command.

You can hyperlink to the ISQNAMER view from the:

- Input Messages Queued and Output Messages Queued options in the IMS Easy Menu (EZIMS), the IMS SSI Easy Menu (EZISSI), and the IMS Operations Menu (EZIOPSR)
- Input Messages and Output Messages options in the IMS Fast Menu (EZIFAST)
- Hyperlink to Input Msgs field and Hyperlink to Output Msgs fields in the ISSIQUES view

**Figure 292: Messages by Queue Name view (ISQNAMER)**

<table>
<thead>
<tr>
<th>Queue Name</th>
<th>Queue Type</th>
<th>Structure</th>
<th>Total Cnt</th>
<th>IMSID</th>
<th>Oldest Date</th>
<th>Oldest Time</th>
<th>Newest Date</th>
<th>Newest Time</th>
<th>Shared Queue</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVTNO</td>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>2 (any)</td>
<td>hyperlink for date/time</td>
<td>DFSMVI81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THDAMINQ</td>
<td>Tran Ready</td>
<td>MSGQ</td>
<td>1 (any)</td>
<td>hyperlink for date/time</td>
<td>DFSMVI81</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlinks are provided on the view:
### Hyperlink from

<table>
<thead>
<tr>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Queue Name</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Owner IMSID</strong></td>
</tr>
<tr>
<td><strong>Oldest Date</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

## Queue Menu (ISQMR)

The Queue Menu (ISQMR) is a starting point for linking to information about specific queues.

When you hyperlink to the Queue Menu from a queue entry on a tabular display, the menu is filtered on the queue you selected.

You can hyperlink to the ISQMR menu from the **Queue Name** field in the ISQINR and ISQOUTR views.

### Figure 293: Queue Menu (ISQMR)

```
15APR2007 15:27:38 ------ MainView WINDOW INTERFACE (Vx.x.xx) 15APR2007==15:27:43==MVIMS==D==1
COMMAND ===> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===>
W1 =ISQMR=---------------------IMSxxx=---------------------=15APR2007=15:27:43==MVIMS==D==1
Queue Menu
Timeframe - Realtime
  Queue Name -> CSQ4ICB3
  Queue Type -> Tran Ready
  Structure Type -> MSGQ
  Owner IMS ID -> (any)
  Group Name -> DFSMVI91
Queue Information
  Oldest/Newest Msg Ages
  * Queues Owned by this IMS
  Status
  Transaction Status
```

---

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Control the Shared Queue Data Server

When the MainView for IMS product Shared Queues Data Server is operating, the messages by structure, queue type, and queue name views provide shared queue statistics for IMS systems that use shared message queues.

When the Shared Queues Data Server is not operating, the letters SMQ are displayed in the statistics fields for IMS subsystems that use shared queues.

Shared Queues Data Server parameters

The ISQQUERY parameter in BBPARM member IMFBEX00 is used to turn the Shared Queues Data Server off or on and to control its data refresh rates.

To determine the current setting of the ISQQUERY parameter, use the IBEXSUMR view.

The ISQTIME parameter in BBPARM member IMFBEX00 defines the amount of time that will pass before a CQS data query times out. When a query times out the Shared Queues Data Server is turned off and CQS data is no longer collected. The default timeout value is 45 seconds, and the range of acceptable values is from 45 to 300. If you experience frequent timeout conditions, you may want to increase the ISQTIME value.

For more information about the ISQQUERY and ISQTIME parameters, see the MainView for IMS and MainView for DBCTL Customization Guide.

Restart data collection

Should the Shared Queues Data Server end, you can restart data collection in one of the following ways instead of having to restart IMS or uninstall and reinstall the Event Collector:

- Issuing commands.
- Issue the SQUNIN primary command on any EZI* menu.
- Issue the SQINST primary command on any EZI* menu.
- Using the Set/View Product Level Options display.
- Issue the SETOPTS primary command on any view.
In the Shared Queue Data Server section, type **Y** in the **Uninstall from IMS** field and press **END**.

- Issue the SETOPTS command again.

- In the Shared Queue Data Server section, type **Y** in the **Install from IMS** field and press **END**.

The Shared Queues Data Server is uninstalled and reinstalled and resumes data collection.

## Enable and disable the Shared Queues Data Server

The Shared Queues Data Server runs in the MainView for IMS product address space (PAS), and is started when the PAS starts.

Due to a software or environmental problem, you may need to enable or disable the Shared Queues Data Server.

### Enable the Shared Queues Data Server

Use one of the following methods to enable the Shared Queues Data Server:

- Issue the SQON primary command on any EZI* menu.
- Use the Set/View Product Level Options display.
- Issue the SETOPTS primary command on any view.
- In the Shared Queue Data Server section, type **Y** in the **Enable in the PAS** field and press **END**.

### Disable the Shared Queues Data Server

Use one of the following methods to disable the Shared Queues Data Server:

- Issue the SQOFF primary command on any EZI* menu.
- Use the Set/View Product Level Options display.
- Issue the SETOPTS primary command on any view.

- In the Shared Queue Data Server section, type Y in the Disable in the PAS field and press END.
Manage an IMSplex

An IMSplex is a group of IMS address spaces that work together as a unit. The address spaces share databases, other resources, message queues, or a combination of these. An IMSplex runs in a sysplex environment and uses an IMS Common Service Layer (CSL).

IMSplex management overview

Use the IMSplex views to:

■ Analyze IMSplex group members and their status

■ Analyze IMSplex connection and utilization information for a specific IMS

View IMSplex information

The following IMSplex views are provided:

■ “IMSplex Member Status view (IPXSUMR)” on page 457

■ “IMSplex Information view (IMSSPLXR)” on page 458

Tip
To access online Help for a view, position the cursor on the view name (in the window information line) and press the Help key. To access help for a field, position the cursor on the field and press the Help key.
Access the IMSplex views

You can access a filtered version of the IMSplex views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)

You can also access the views by entering a view name on the COMMAND line, by entering VIEWS and then selecting the view from the VIEWS list.

For more specific information about hyperlinks to the IMSplex views, see the sections that describe the views.

IMSplex Information view commands

The IMSplex Information view (IMSSPLXR) offers primary and line commands.

Primary command

The IMSplex Information view (IMSSPLXR) supports the IMSCMDS primary command.

Primary commands are entered on the COMMAND line.

The IMSCMDS primary command displays the Issue IMS commands dialog. Use the dialog to issue IMS Type-1 and Type-2 commands. For more information, see “Issue IMS commands” on page 33.

Line commands

The following line commands are available on the IMSplex Information view (IMSSPLXR):

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>QRP</td>
<td>Issues the IMS QUERY command to display IMS Repository information.</td>
</tr>
</tbody>
</table>
### IMSplex Member Status view (IPXSUMR)

The IMSplex Member Status view (IPXSUMR) is a real-time or past interval tabular summary view that shows the structure and status of IMSplex group members, including both IMS control region members and SCI component members.

The IPXSUMR is summarized by IMSplex name. Each row includes the member name, status, type, subtype, job name, version, and operating system name. For IMS control regions, the view shows the MainView for IMS product PAS ID, version number, and PUT level.

You can hyperlink to the IPXSUMR view from the:

- IMSplex Connections options in the IMS SSI Easy Menu (EZISSI)
- **IMSplex Name** field in the IMSSPLXR view, the performance views (IMSDTL* and DBCDTL*), and the plex performance views (IMSPL* and DBCPL*)
- **IMSplex** field in the IMS Dashboard view (IMSDASSR)
- IMSplex option in the IMSMPR IMS Menu, the DBCTL Dashboard Menu (DBCMDASH), and the IMS Information Menu (IMSMINFO)

The following hyperlink is provided on the view:
The IMSplex Information view (IMSSPLXR) is a real-time or past interval detail view that shows information about the IMSplex connectivity and utilization of a specific IMS subsystem.

The IMSSPLXR view includes information such as:

- Whether the IMS has registered to the SCI, OM, and RM Common Service Layer components
- Command security and LE options for the IMS
- Online change options for the IMS

You can hyperlink to the IMSSPLXR view from the IMSplex Connection option in the IMS Easy Menu (EZIMS) and from the name of an IMS control region member in the Member Name field of the IPXSUMR view.

Figure 295: IMSplex Information view (IMSSPLXR)

No hyperlinks are available on the view.
Enable and disable the IMSplex Data Server

The IMSplex Data Server runs in the MainView for IMS product address space (PAS), and is started when the PAS starts.

Due to a software or environmental problem, you may need to enable or disable the IMSplex Data Server.

Enable the IMSplex Data Server

Use one of the following methods to enable the IMSplex Data Server:

- Issue the IPXON primary command on any EZI* menu.
- Use the Set/View Product Level Options display.
- Issue the SETOPTS primary command on any view.
- In the IMSPllex Data Server section, type Y in the Enable in the PAS field and press END.

Disable the IMSplex Data Server

Use one of the following methods to disable the IMSplex Data Server:

- Issue the IPXOFF primary command on any EZI* menu.
- Use the Set/View Product Level Options display.
- Issue the SETOPTS primary command on any view.
- In the IMSPllex Data Server section, type Y in the Disable in the PAS field and press END.
IMS workload definitions overview

Workload definitions are used to define performance objectives for your mission critical applications.

Elements of a workload definition

A dialog box is used to create or modify IMS workload definitions.

You fill in fields in the dialog box with values that describe each workload.

The elements of a workload definition are summarized in the following table and are described in more detail in “Assign the new workload definition settings” on page 466:

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload and composite names</td>
<td>A workload name and composite name are assigned to each workload. All workloads that share the same composite name are grouped into &quot;applications.&quot; If your site has the MainView VistaPoint product installed, you can use a shared composite name to combine the performance of workloads running in IMS, CICS, DB2, and the IBM operating system into a common application so that you can view the performance of workloads sharing common tasks.</td>
</tr>
<tr>
<td>Service-level objectives</td>
<td>A service-level objective is defined for each workload. The objective specifies the acceptable performance for a workload. The objective is met if a specified percentage of a workload’s transactions completes within a specified elapsed time.</td>
</tr>
<tr>
<td>Monitoring time range</td>
<td>Start and end time fields are used to specify a monitoring time period for each workload.</td>
</tr>
<tr>
<td>Target ID and system ID</td>
<td>If you want to limit a workload to specific IMS subsystem or IBM operating systems, you can include an IMS target ID, an operating system ID, or both.</td>
</tr>
</tbody>
</table>
### Workload resource fields

Workloads can be qualified by transaction ID, class, program name, PSB name, region job name, region ID, LTERM name, IMS user ID, and transaction type.

---

## Plan IMS workload definitions

Before you create workload definitions, you should:

- Establish conventions for the workloads
- Define the workload service-level objectives for each workload
- Identify a critical monitoring period for each workload

## Establish workload conventions

IMS workload definitions are saved in BBPARM member BBFTWK00.

To minimize maintenance time, the BBPARM data set with the BBFTWK00 member should be shared by all MainView for IMS product address spaces. Otherwise, duplicate workload definitions must be created and maintained.

Establishing logical, consistent conventions for workload and composite names is important, especially if all your workload definitions are not stored in a shared BBPARM data set. If you must use multiple BBPARM data sets for workload definitions, maintaining the definitions is much easier if you can quickly identify similar workloads.

- **Workload names**
  
  The information in MainView for IMS plex views can be sorted and filtered by workload name. Consistent workload names make it easier to sort and filter views to find the information that you want to display.

  Workload names can be up to eight characters long, and the names should clearly represent the work performed by the target IMS subsystem. For example, the workload name IMSPAY could be used for IMS payroll transactions.

- **Composite names**

  Composite names should represent a common function of the workloads that are part of a MainView VistaPoint application. For example, a workload composite with the name FINANCE indicates that a workload is part of the financial application. Composite names can be up to eight characters long.
Define workload service-level objectives

A service-level objective specifies the acceptable performance of a workload.

You set a service-level objective based on your assessment of the minimum percentage of transactions that must complete within an elapsed response time for the tasks that occur in a workload.

Workloads that belong to the same composite can have different service-level objectives. MainView for IMS and MainView VistaPoint normalize reported values to maintain consistency.

Identify critical workload monitoring periods

There are periods of time when transaction performance is critical for a particular application, and there are other times, perhaps during the night, when performance is less critical.

You can define a single workload to monitor only during an application’s critical time period, or you can define multiple workloads for the application, with different monitoring periods and response time goals.

All workloads that belong to the same composite workload should have identical monitoring periods. If they have different monitoring periods, views that show combined workload performance might display misleading information.

Create a new workload definition

After you establish the appropriate naming conventions, service-level objectives, and monitoring period, you can create a workload definition by completing the following steps:

1 “Workload Definition List view (IWKLDDEF)” on page 464
2 “Change the view status from browse to edit mode” on page 464
3 “Open the Add IMS Workload Definition dialog box” on page 465
4 “Assign the new workload definition settings” on page 466
5 “Save and install a new workload definition” on page 469
Workload Definition List view (IWKLDDEF)

The Workload Definition List view (IWKLDDEF) is the starting point for defining an IMS workload.

To access the IWKLDDEF view, you can:

- Type IWKLDDEF on any COMMAND line
- Type ADMIN on any COMMAND line and select the IWKLDDEF view
- Type VIEWS on any COMMAND line and select the IWKLDDEF view
- Hyperlink from the Workload Definition option in the IMS Utility Menu (EZIMSU)
- Hyperlink from the Workload Definition option in the IMS Admin Easy Menu (EZIADMIN)

Figure 296: Workload Definition List view (IWKLDDEF), browse mode

No hyperlinks are available on the view.

Change the view status from browse to edit mode

To add a workload definition (or change an existing workload definition), you must switch from browse mode to edit mode by typing EDIT on the IWKLDDEF COMMAND line and pressing Enter.
An edit lock is set on BBPARN member BBFTWK00, and the IWKLDDEF view is displayed with edit mode indicated in the view information line, as shown in the following figure:

**Figure 297: IWKLDDEF Workload Definition List view, edit mode**

| 15APR2007  16:17:39 ------ MainView WINDOW INTERFACE(R4.0.01)------------------- |
| COMMAND ===> SCROLL ===> CSR |
| CURR WIN ===> 1 ALT WIN ===> |
| >W1 =IWKLDDEF=============I9AM31CT=*========(00 EDIT          )====MVIMS====D====2 |
| CMD Workload Composite | % S |
| --- Name | Name | Target | System | Description | Sta Resp Tra T |
| IMSPAY | FINANCE | IMSxxx | * | Accounts payable | Act 0.30 90 0 |
| IMSREC | FINANCE | IMSxxx | * | Accounts receivable | Act 0.30 90 0 |
| IMSRET | FINANCE | IMSxxx | * | Accounts return | Act 1.00 95 0 |
| IMSTEST | TEST0131 | IMS* | * | IMS testing | Act 0.30 95 0 |

The primary commands and line commands provided in the IWKLDDEF view are listed in “IWKLDDEF view primary commands” on page 470 and “IWKLDDEF view line commands” on page 471.

**Note**

If someone else is editing the BBFTWK00 member when you type the EDIT command, you will get a message telling you that the member is not available.

---

**Open the Add IMS Workload Definition dialog box**

You can use the default workload definition settings or the settings of an existing workload as a basis for the new workload definition.

Use one of the following methods to open the Add IMS Workload Definition dialog box to add a new workload definition:

- In Edit mode, type **ADD** on the IWKLDDEF COMMAND line to open the dialog box with the default workload definition settings.

- In Edit mode, type **ADD** beside an existing workload to open the dialog box using the selected workload’s settings and then specify a new workload name.

---

Chapter 27  IMS workload definitions overview  465
The Add IMS Workload Definition dialog box with default settings is shown in the following figure:

**Figure 298: Add IMS Workload Definition dialog box**

The primary commands available in the workload definition dialog box are listed in “Workload definition dialog boxes commands” on page 471.

### Assign the new workload definition settings

The following fields are used to create a workload definition.

For more information about the fields, press your `Help` key to access the online Help.

- “Workload and composite fields” on page 467
- “Target and system fields” on page 467
- “Description field” on page 467
- “Resource fields” on page 468
- “Response time and percent of transactions fields” on page 468
- “Start and end time fields” on page 468
- “Include queuing field” on page 469
- “Selection masks” on page 469
Workload and composite fields

Enter the selected names for the workload and composite.

Workload and composite names can be up to eight characters long, but the first character in each name must be an alpha character.

The composite workload name is used by MainView VistaPoint to combine workloads into a single application. Related IMS, CICS, DB2, and operating system workloads must have the same composite name if you want to monitor their combined transaction performance in a MainView VistaPoint application.

Workload name and composite name are required fields. If you do not enter a composite name for a workload, the workload name is automatically assigned as the composite name.

For information about choosing workload and composite names, see “Establish workload conventions” on page 462.

Target and system fields

Enter the complete target ID if you want to restrict the workload to a single IMS subsystem, and enter the system ID if you want to restrict the workload to a single operating system.

You can use wildcards to specify a selection mask that expands a definition to include multiple IMS targets or operating systems. (See “Selection masks” on page 469 for more information.)

Target and system ID are required fields. If no ID is specified in a field, the field must contain an asterisk.

Description field

Enter a description that defines the purpose of the workload.

The description is a required field, and it can be up to 24 characters long.
Resource fields

You can use the resource fields to restrict a workload by transaction ID, class, program name, PSB name, region jobname, region ID, LTERM name, IMS user ID, transaction type, and program type.

The resource fields are optional.

You can use the wildcards to specify a selection mask that expands a definition for the transaction ID, class, program, PSB, region job name, and region ID fields. (See “Selection masks” on page 469 for more information.)

You can use multiple entries, separated by a comma or a space, for the transaction ID, program, PSB, region job name, terminal, and user ID fields. You can use two entries, separated by a comma or a space, for the program type field.

Response time and percent of transactions fields

These fields define the service-level objective for the workload.

In the response time field, enter the response time goal for transactions that occur within the workload target. In the percentage field, enter the minimum percentage of transactions that must complete within the specified response time.

The service-level objective is met if the specified minimum percentage of a workload’s transactions complete within the specified response time.

These fields are required. If you are creating a workload definition from scratch and enter no values in the fields, the default response time of 1.0 seconds and the default percentage of 100% will be used for the workload definition.

Start and end time fields

You can specify a start time and an end time (in the hh:mm fields) to establish a regularly scheduled period of time when MainView VistaPoint monitors collect transaction response time data from targets specified in the workload definition.

Start and end times can span midnight, creating a data collection period of two consecutive days. For example, you can set your start and end times to 08:00 hours.
The previous monitoring period ends at 08:00 hours and the next monitoring period begins immediately at 08:00.

These fields are required. If you are creating a workload definition from scratch and enter no values in the fields, the default start time of 00:00 and end time of 24:00 will be used for the workload definition.

### Include queuing field

The queuing field specifies whether a workload’s transaction response time will include the time transactions spend in the input queue waiting to be processed.

If the Include Queuing field value is Y (for yes), @RSTM will monitor transaction response time and will include queuing time. If the value is N (for no), @ELTM will monitor transaction response time and will not include queuing time.

**Note**

@RSTM and @ELTM are MainView VistaPoint monitors.

### Selection masks

You can use wildcards to specify a selection mask that filters the data to be monitored in a workload definition.

You can use an asterisk to represent one or more characters. For example, if you enter IMS* in the target field, all targets that begin with IMS will be included in the workload.

You can use a plus sign or a question mark to represent a single character. For example, if you enter IMS+9 in the target field, all targets that begin with IMS, have any single character in the fourth position, and end with 9 will be included in the workload.

### Save and install a new workload definition

After you define a new workload in the Add IMS Workload Definition dialog box, you can add the workload to the current workload list by typing the SAVE command in the dialog box command field.
When you return to the IWKLDDEF view, the new workload is included in the workload list with an inactive status and the view mode is changed from EDIT to EDIT MOD, indicating that changes to the workload list are pending. At that point, you can type:

- **SAVE** on the COMMAND line to save the definition in inactive status and keep the IWKLDDEF view open
- **END** on the COMMAND line to save the definition in inactive status and return to the previous view
- **SAVE** on the COMMAND line and then type INStall in the line command area beside the new workload (or type INStall first and then SAVE) to activate the new workload and save it in the workload list
- **INStall** in the line command area beside the new workload to activate it without saving it

The INStall line command immediately updates the local BBI-SS PAS, and monitoring begins for a new workload as soon as its status changes from inactive to active.

You can create a new workload for temporary use by installing it without saving it in the workload list. When you no longer need the workload, you can delete it before you save the workload list.

**Note**
You can hyperlink from the **Workload Name** field in the IWKLDDEF view to access the Workload Definition Detail view (IWKLDDET), which shows information specific to the selected workload.

---

### Workload definition commands

The workload definition views offer primary and line commands.

### IWKLDDEF view primary commands

The following primary commands are available on the IWKLDDEF view:

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIT</td>
<td>Changes the view from browse mode to edit mode, activating the other primary and line commands</td>
</tr>
</tbody>
</table>
IWKLDDEF view line commands

The following line commands are available on the IWKLDDEF view:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD</td>
<td>Opens the Add IMS Workload Definition dialog box with the settings for the selected workload definition. You can specify a new workload name and use the settings of the selected workload as a template for a new workload definition.</td>
</tr>
<tr>
<td>CHA</td>
<td>Opens the Change IMS Workload Definition dialog box with the settings for the selected workload definition.</td>
</tr>
<tr>
<td>DEL</td>
<td>Removes a workload from the view and changes its status to deleted.</td>
</tr>
<tr>
<td>INS</td>
<td>Activates a workload with a modified or inactive status (and changes the workload’s status to active).</td>
</tr>
<tr>
<td>UND</td>
<td>Changes the status of a workload from deleted to the status in effect when the DEL line command was entered against the workload.</td>
</tr>
</tbody>
</table>

Workload definition dialog boxes commands

The following primary commands are available in the dialog boxes for adding and changing workload definitions:

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>END</td>
<td>Saves the workload settings and closes the dialog box. Changes are not permanently saved until you enter the SAVE or END primary command in the IWKLDDEF view.</td>
</tr>
</tbody>
</table>
Maintain workload definitions

You can update, delete, and recover workload definitions.

Change a workload definition

To change settings for a workload:

1. Access the IWKLDDEF view.
2. Change browse mode to edit mode (by typing EDIT on the COMMAND line).
3. Type CHA in the line command area beside the workload you want to change.

The CHAnge line command opens the Change IMS Workload Definition dialog box with the current settings for the workload. You can then change any field in the dialog box except the workload name field.

After you change the definition, you can either enter the CANcel command to discard the changes or enter the END command to keep the changes intact. Both commands close the dialog box.

When you change a workload’s settings and use the END command to close the Change IMS Workload Definition dialog box, the updates you made are pending. If the workload was in active status, its status is changed to modified (Mod); if it was in inactive status, its status remains inactive. The window information line shows an EDIT MOD status, which means that there are one or more unsaved workload modifications pending.

In the IWKLDDEF view, you can cancel or save changes you made to a workload definition. If you enter the CANcel primary command, all changes made and not saved are discarded and the view mode changes from EDIT MOD mode to BROWSE mode. If you enter the SAVE primary command, all changes are saved, the IWKLDDEF view remains open, and its mode changes from EDIT MOD to EDIT. If

<table>
<thead>
<tr>
<th>Primary command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CANcel</td>
<td>Cancels a new workload or changes made to an existing workload and closes the dialog box</td>
</tr>
<tr>
<td>SAVE</td>
<td>Saves the workload settings without closing the dialog box</td>
</tr>
<tr>
<td></td>
<td>Changes are not permanently saved until you enter the SAVE or END primary command in the IWKLDDEF view.</td>
</tr>
</tbody>
</table>
you enter the END command, all changes are saved and the previous view is displayed.

You must install a modified workload definition to activate the changes. When you install the modified workload definition, the original workload is deactivated, and transaction monitoring begins immediately with the updated workload definition, if the current time is within the monitoring time period of the workload. If the current time is not within the workload’s monitoring time period, transaction monitoring will begin when the start time is reached.

Delete and recover workload definitions

To delete a workload definition:

1. Access the IWKLDDEF view.
2. Change browse mode to edit mode (by typing EDIT on the COMMAND line).
3. Type DEL in the line command area beside the workload you want to delete.

When you enter the DEL line command, the workload definition disappears from the definition list, and its status is changed to deleted. If you enter the SAVE or END command, the workload is permanently deleted and cannot be retrieved.

If you have deleted a workload with the DEL line command and you have not saved the workload list with the SAVE or END command, you can retrieve the deleted workload by entering PARM DELETED(*) on the COMMAND line.

When you enter the PARM DELETED(*) command, the workload reappears in the workload list and is displayed in a different color. To recover the workload, enter the UND undelete line command in its line command area. The undelete command changes the color of the workload line to normal and changes its status from deleted to the status in effect when the DEL line command was entered against the workload.
Manage samplers

A sampler makes observations of the state of one or more target IMS subsystems. Samplings are taken 24 hours a day, two times a second by default or as defined by user-specified sampler parameters.

The observations are accumulated to provide a projection of the continuous state of IMS subsystems and are displayed in views.

There are the following types of samplers:

- CORT (components of transaction response time) samplers observe transaction processing states.

- Workflow samplers observe region usage, resource consumption, and processing throughput.

Tip
You can offload workflow sampler processing to zIIP processors. For more information, see the MainView for IMS and MainView for DBCTL Customization Guide.

Set sampler definitions

MainView for IMS distributes default sampler parameters.

The distributed defaults specify a sampling period of 24 hours a day at two times a second to collect all information for workflow and CORT views. Sampler defaults are used by targets that are not assigned unique sampler definitions.

If your BBPARM data set is shared by all product address spaces (PASs), you can create your own default sampler parameters that override the distributed default sampler parameters. To create a your own default sampler parameters, name a sampler definition DEFAULT.

To create, change, or delete sampler definitions, see “Defining a sampler definition” on page 478.
Sampler administration views

You use the sampler administration views to create, change, or delete sampler definitions.

You use the sampler administration views to set the rate of sampling and the types of information collected. The following sampler administration views are provided:

- “Sampler Administration view (ISAMP)” on page 476
- “Sampler Administration Detail view (ISAMPD)” on page 477

Sampler Administration view (ISAMP)

The Sampler Administration view (ISAMP) view shows all the sampler parameter definitions by target.

Defaults are used for any parameters that are not defined for a target. The default for CORT data is to collect all information 24 hours a day, two times a second. The default for workflow data is to collect information 24 hours a day.

You can access the ISAMP view by:

- Entering ISAMP on the COMMAND line
- Entering ADMIN on the COMMAND line and selecting ISAMP from the list of system and operations administration views
- Entering VIEWS on the COMMAND line and selecting ISAMP from the list of views
- Selecting the Sampler Administration option on the IMS Utility Menu (EZIMSU)

Figure 299: Sampler Administration view (ISAMP)

The following hyperlink is provided on the view:
Sampler Administration Detail view (ISAMPD)

The Sampler Administration Detail view (ISAMPD) shows detailed information about the status and current parameter values in effect for a target selected from the ISAMP view.

The values shown may not be in effect in the following circumstances:

- The sampler parameters were changed and changes were activated with the INStall command, but not saved. The status of the sampler definition is Install. The installed parameters are in effect.

- The sampler parameters were changed and changes were saved, but not installed. The status of the sampler definition is Modified. The saved parameters are the current values. Saved changes are activated when they are installed or the PAS (product address space) is restarted.

You can access the ISAMPD view by:

- Entering ISAMPD on the COMMAND line
- Entering VIEWS on the COMMAND line and selecting ISAMPD from the list of views
- Hyperlinking from the Target field in the ISAMP view

Figure 300: Sampler Administration Detail view (ISAMPD)

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>Sampler Administration Detail view (ISAMPD), which shows detailed information about the status and current parameters in effect for the selected target sampler</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
Defining a sampler definition

Use the sampler administration views to create, change, or delete sampler definitions.

You create a new definition by using the distributed default definition or by using another definition as a model.

**To create a definition**

1. Access a sampler administration view.

   For information about accessing sampler administration views, see the following sections:
   - “Sampler Administration view (ISAMP)” on page 476
   - “Sampler Administration Detail view (ISAMPD)” on page 477

2. Issue the EDIT primary command to start an edit session.

   The window information line changes from BROWSE to EDIT.

3. Do one of the following actions:

   - On the ISAMP view, issue the Add primary command to use the distributed default sampler definition as a model for the new definition.
   - On the ISAMP view, issue the Add line command next to the definition that you want to use as a model for the new definition.
   - On the ISAMPD view, issue the Add primary command to use the displayed definition as a model for the new definition.
The add sampler definition dialog box is displayed as shown in the following figure:

![Figure 301: Add Sampler Definition dialog box](image)

4 Complete the fields and issue one or more of the following primary commands:

- **SAVE** to save the definition
- **END** to save the definition and exit the ISAMP view
- **CANcel** to discard the definition
- **INStall** to activate the definition

**To change a definition**

1. Access the ISAMP view (“Sampler Administration view (ISAMP)” on page 476).
2. Issue the EDIT primary command to start an edit session.

   The window information line changes from BROWSE to EDIT.
3. Use the CHA line command next to the definition that you want to use as a model for the new definition.

   The Change Sampler Definition dialog box is displayed.
4. Make the changes you want and press **End**.

   The status of the definition is changed to Modified.
5. Issue one or more of the following primary commands:
To delete a definition

1. Access the ISAMP view ("Sampler Administration view (ISAMP)" on page 476).
2. Issue the EDIT primary command to start an edit session.
   The window information line changes from BROWSE to EDIT.
3. Use the DEL line command next to the definition that you want to delete.
   The status of the definition is changed to one of the following statuses:
   - PendDel
     The definition is marked for deletion. Sampling continues until the PAS (product address space) stops, after which the definition is deleted.
   - Deleted
     The definition is deleted and sampling for the target is discontinued.
4. Do one of the following tasks:
   - Issue the END primary command to retain the deletion and exit the ISAMP view.
   - Issue the CANcel primary command to discard the deletion.
   - Use the UND line command next to the definition to discard the deletion.

Control samplers

You use the sampler operations administration views to:

- See whether a target is being sampled
- Control the current state of a sampling with stop, start, or quiesce commands

The following sampler operations administration views are provided:
For information about accessing the sampler operations administration views, see the sections that describe the views.

Sampler Operations Administration view (ISAMPOP)

The Sampler Operations Administration view (ISAMPOP) displays all of the IMS targets that are defined to the product address space (PAS) and the status of the sampler for each target.

On the view, you can use line commands to start, stop, or quiesce target sampling for a target.

You can access the ISAMPOP view by:

- Entering ISAMPOP on the COMMAND line
- Entering ADMIN on the COMMAND line and selecting ISAMPOP from the list of system and operations administration views
- Entering VIEWS on the COMMAND line and selecting ISAMPOP from the list of views
- Selecting the Sampler Operations option on the IMS Utility Menu (EZIMSU)

Figure 302: Sampler Operations Administration view (ISAMPOP)

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>Sampler Operations Administration Detail view (ISAMPOPD), which shows detailed information about the status and parameters in effect for the selected target sampler</td>
</tr>
</tbody>
</table>
Sampler Operations Administration Detail view (ISAMPOPD)

The Sampler Operations Administration Detail view (ISAMPOPD) shows detailed information about the status and parameters in effect for a target selected from the ISAMPOP view.

It can help you determine when data is collected for that target.

You can hyperlink to the ISAMPOPD view from the Target field in the ISAMPOP view.

Figure 303: Sampler Operations Administration Detail view (ISAMPOPD)

No hyperlinks are available on the view.

Start, stop, and quiesce sampling

In the ISAMPOP view, you can use the following line commands to control target sampling:

<table>
<thead>
<tr>
<th>Line command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>STArt</td>
<td>Starts sampling the selected IMS target.</td>
</tr>
<tr>
<td>STOp</td>
<td>Stops sampling the selected IMS target.</td>
</tr>
<tr>
<td>Quiesce</td>
<td>Puts the target sampling in a latent state.</td>
</tr>
</tbody>
</table>
View information for database data sets

Use the database data set views to view information about your IMS database data sets.

Database data sets information overview

The database data set views:

- Show attributes and statistics for the IMS database data sets
- Show all DEDB, OSAM, and VSAM database data sets that are currently open with details about those data sets

The following database data set views are provided:

- “Database Data Sets Summary view (IDDSUMR)” on page 484
- “VSAM Database Data Set Detail view (IDDVDTLR)” on page 484
- “OSAM Database Data Set Detail view (IDDODTLR)” on page 485

Access the database data set views

You can access the database data set views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- IMS DBA Easy Menu (EZIDBA, EZIDBAR)
IMS Resource Menu (EZIMSRS)

You can also access the views by entering a view name on the COMMAND line, or by entering VIEWS and then selecting the view from the VIEWS list.

Database Data Sets Summary view (IDDSUMR)

The Database Data Sets Summary view (IDDSUMR) displays OSAM, VSAM, and DEDB data set information.

Figure 304: Database Data Sets Summary view (IDDSUMR)

<table>
<thead>
<tr>
<th>Database DB</th>
<th>Area/</th>
<th>Name</th>
<th>Type</th>
<th>Partition</th>
<th>Type</th>
<th>Type Ext</th>
<th>DDNAME</th>
<th>Name</th>
<th>Type</th>
<th>Type Ext</th>
<th>DDNAME</th>
<th>Database Datasets</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBFSAMD5</td>
<td>DEDB</td>
<td>CUSTHISM</td>
<td>HISAM</td>
<td>LDGDB</td>
<td>ESDS</td>
<td>DATA</td>
<td>N/A</td>
<td>506880</td>
<td>506880</td>
<td>N/A</td>
<td>N/A</td>
<td>OSAM datasets only</td>
</tr>
<tr>
<td>IVPDDB1</td>
<td>INDEX</td>
<td>CUSTHISM</td>
<td>HISAM</td>
<td>DFSIVD1I</td>
<td>KSDS</td>
<td>DATA</td>
<td>1</td>
<td>645120</td>
<td>645120</td>
<td>0</td>
<td>0</td>
<td>Database Xref Summary</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

VSAM Database Data Set Detail view (IDDVDTLR)

The VSAM Database Data Set Detail view (IDDVDTLR) displays detailed information about a VSAM database data set.
The OSAM Database Data Set Detail view (IDDODTLR) displays detailed information about a OSAM database data set.
### Figure 306: OSAM Database Data Set Detail view (IDDODTLR)

```plaintext
28JAN2010  17:59:31    ------ MainView WINDOW INTERFACE (V6.0.00)    ----------
COMMAND ===>                        SCROLL ===> PAGE
CURR WIN ===> 1         ALT WIN ===>        >W1=IDDODTLR=*=I11YIMSG=*==28JAN2010==17:59:31==MVIMS==D==1
-OSAM Dataset Details-

<table>
<thead>
<tr>
<th>Dataset name</th>
<th>IMS.V111Y.DFSIVD1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database name</td>
<td>IVPDB1</td>
</tr>
<tr>
<td>DDNAME</td>
<td>DFSIVD1</td>
</tr>
<tr>
<td>Database type</td>
<td>HIDAM</td>
</tr>
<tr>
<td>Dataset type</td>
<td>OSAM</td>
</tr>
<tr>
<td>Total extensions</td>
<td>1</td>
</tr>
<tr>
<td>Extendable</td>
<td>Y</td>
</tr>
<tr>
<td>Total volumes</td>
<td>1</td>
</tr>
<tr>
<td>High VOLSER</td>
<td>BAB317</td>
</tr>
<tr>
<td>High RBN</td>
<td>315</td>
</tr>
<tr>
<td>SCAN parameter</td>
<td>3</td>
</tr>
<tr>
<td>SEARCHA parameter</td>
<td>0</td>
</tr>
<tr>
<td>FRSPC parameter</td>
<td>0</td>
</tr>
<tr>
<td>RAPs parameter</td>
<td>N/A</td>
</tr>
<tr>
<td>Largest segment</td>
<td>54</td>
</tr>
<tr>
<td>Smallest segment</td>
<td>54</td>
</tr>
<tr>
<td>HALDB dataset detail</td>
<td></td>
</tr>
<tr>
<td>HALDB dataset type</td>
<td>N/A</td>
</tr>
<tr>
<td>Reorg number</td>
<td>N/A</td>
</tr>
<tr>
<td>Online Reorg active</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition name</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition ID</td>
<td>N/A</td>
</tr>
<tr>
<td>Partition high key</td>
<td>N/A</td>
</tr>
</tbody>
</table>
```

No hyperlinks are available on the view.
View information for DBRC

Use Database Recovery Control (DBRC) views to obtain information about DBRC and the system log data sets (SLDS).

DBRC information overview

The DBRC views:

- Show attributes and statistics for DBRC
- List SLDS names filtered by a day and time period

The following DBRC views are provided:

- “DBRC Statistics view (IDBRCSTR)” on page 488
- “Query RECON SLDS view (IDBRSLDS)” on page 488

Access the DBRC views

You can access the DBRC views by selecting options from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS SSI Easy Menu (EZISSI, EZISSERT)
- IMS DBA Easy Menu (EZIDBA, EZIDBAR)

You can also access the views by entering a view name on the COMMAND line, or by entering VIEWS and then selecting the view from the VIEWS list.
The DBRC Statistics view (IDBRCSTR) displays information about DBRC, including the number of calls and reserve requests, I/O response time, and wait time.

**Note**

This view is available only under the Base Primitive Environment (BPE).

**Figure 307: DBRC Statistics view (IDBRCSTR)**

<table>
<thead>
<tr>
<th>IMS ID</th>
<th>MVS ID</th>
<th>SJSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>113J</td>
<td>MVS ID</td>
<td>SJSC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I/O Service LOCATE Reqs...</th>
<th>273</th>
<th>Original DBRC Requests...</th>
<th>34</th>
</tr>
</thead>
<tbody>
<tr>
<td>I/O Service CHANGE Reqs...</td>
<td>58</td>
<td>Time Spent on Requests...</td>
<td>1.999</td>
</tr>
<tr>
<td>I/O Service WRITE Reqs....</td>
<td>12</td>
<td>No. of Retry Requests......</td>
<td>0</td>
</tr>
<tr>
<td>I/O Service DELETE Reqs...</td>
<td>1</td>
<td>Time Spent on Retries.....</td>
<td>0.000</td>
</tr>
<tr>
<td>VSAM GET Requests.........</td>
<td>860</td>
<td>Time Spent on Pre-Empting.</td>
<td>0.000</td>
</tr>
<tr>
<td>VSAM PUT Requests.........</td>
<td>306</td>
<td>No. Reopen Due To Errors..</td>
<td>0</td>
</tr>
<tr>
<td>VSAM ERASE Requests.......</td>
<td>60</td>
<td>No. of OPEN Retries.......</td>
<td>0</td>
</tr>
<tr>
<td>No. of RESERVE Requests...</td>
<td>0</td>
<td>No. of COMMIT Errors.......</td>
<td>0</td>
</tr>
<tr>
<td>Time Waiting for RESERVES.</td>
<td>0.000</td>
<td>No. of BACKOUT Errors......</td>
<td>0</td>
</tr>
<tr>
<td>RESERVE Reqs for All RECON</td>
<td>35</td>
<td>No. of Batch ENQs.........</td>
<td>1</td>
</tr>
<tr>
<td>Time Wait for all RESERVES</td>
<td>1.544</td>
<td>Time Spent for Batch ENQs.</td>
<td>0.000</td>
</tr>
<tr>
<td>No. of DEADLOCKS...........</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Timeouts............</td>
<td>0</td>
<td>Avg Wait Time for Requests</td>
<td>0.021</td>
</tr>
<tr>
<td>Max Parallel REQ Processed</td>
<td>2</td>
<td>Max Wait Time for Request.</td>
<td>0.115</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.

### Query RECON SLDS view (IDBRSLDS)

The Query RECON SLDS view (IDBRSLDS) lists the SLDS data sets for a particular time period. The list includes the record IDs contained in the data sets, eliminating the need to run a batch job to determine in which data set an entry is recorded.

**Note**

The IMS RESLIB or SDFSRESL load library must be concatenated to the PAS STEPLIB to use the IDBRSLDS view.
Initially, the view is blank. You specify a date and time range for which you want to display the system log data sets. The data sets are displayed along with the record IDs in the data set. The earliest date that you can specify is January 1, 2000.

Figure 308: Query RECON SLDS view (IDBRSLDS)

<table>
<thead>
<tr>
<th>Dataset Name</th>
<th>Start Time</th>
<th>End Time</th>
<th>Volser No</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS.SLDSP.I13J.D13248.T2356313.V60</td>
<td>23:56:31</td>
<td>00:01:12</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0001120.V5F</td>
<td>00:01:12</td>
<td>00:04:45</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0004452.V5E</td>
<td>00:04:45</td>
<td>00:11:10</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0011109.V5E</td>
<td>00:11:10</td>
<td>00:12:45</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0013457.V5A</td>
<td>00:13:45</td>
<td>00:15:35</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0015354.V61</td>
<td>00:15:35</td>
<td>00:19:47</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0019477.V61</td>
<td>00:19:47</td>
<td>00:26:34</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0026342.V60</td>
<td>00:26:34</td>
<td>00:31:51</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0031512.V5F</td>
<td>00:31:51</td>
<td>00:36:04</td>
<td>BAB386 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0036047.V5F</td>
<td>00:36:04</td>
<td>00:43:09</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0043098.V5B</td>
<td>00:43:09</td>
<td>00:44:52</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0044520.V62</td>
<td>00:44:52</td>
<td>00:49:25</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0049259.V62</td>
<td>00:49:25</td>
<td>00:56:04</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0056042.V61</td>
<td>00:56:04</td>
<td>01:00:40</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0100401.V60</td>
<td>01:00:40</td>
<td>01:04:45</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0104457.V60</td>
<td>01:04:45</td>
<td>01:12:07</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0112070.V5C</td>
<td>01:12:07</td>
<td>01:19:20</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0119206.V63</td>
<td>01:19:20</td>
<td>01:25:06</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0125065.V63</td>
<td>01:25:06</td>
<td>01:31:21</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0136483.V61</td>
<td>01:36:48</td>
<td>01:43:33</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0143337.V61</td>
<td>01:43:33</td>
<td>01:49:04</td>
<td>BAB353 1</td>
</tr>
<tr>
<td>IMS.SLDSP.I13J.D13249.T0149042.V5D</td>
<td>01:49:04</td>
<td>01:52:05</td>
<td>BAB353 1</td>
</tr>
</tbody>
</table>

No hyperlinks are available on the view.
View information about your BMC products for IMS

Use the views in this section to display information about MainView for IMS Online. You can display the product's parameter settings, information about the product address space (PAS), zIIP usage, and a list of BMC products for IMS that are active in the same IMS control region.

View a list of IMS products

Use the IMS product views to display a list of BMC performance products that are active in each IMS control region associated with a MainView for IMS product address space (PAS).

The IMS product views:

- Provide a list of BMC IMS-related products that are active in the same IMS control region as the target system
- Include online Help that describes the products and what each provides
- Show the product release and maintenance level
- Indicate product status

The following IMS product views are provided:

- “BMC IMS Products Summary view (IPRDSUM)” on page 492
- “BMC IMS Products Detail view (IPRDDTL)” on page 493
Access the product views

You can access a filtered version of the IPRDDTL view by selecting the Installed Products option from the following menus:

- IMS Easy Menu (EZIMS, EZIMSR)
- IMS Fast Menu (EZIFAST, EZIFASTR)
- IMS SSI Easy Menu (EZISSI, EZISSIR)
- DBCTL Operations Menu (EZDOPSR)
- DBCTL DBA Easy Menu (EZIDBA)

You can also access the IPRSUMR and IPRDDTL views by entering the view name on the COMMAND line, by entering VIEWS and then selecting one of the views from the VIEWS list, or by entering IMSPRODS on the COMMAND line and then selecting one of the views.

BMC IMS Products Summary view (IPRDSUM)

The BMC IMS Products Summary view (IPRDSUM) displays a summary of the BMC products for IMS that are installed in the IMS control regions in the context set by the user.

You can hyperlink from the IPRDSUM Count field to access a view that shows every installation for a specific product.

The IPRDSUM view displays one row for each installed product, and the Count field shows how many IMS subsystems have the associated product installed.

Figure 309: BMC IMS Products Summary view (IPRDSUM)

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Name</th>
<th>Product Count</th>
<th>Product Name</th>
<th>Product Level</th>
<th>Product Name</th>
<th>Product MVS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AutoOPERATOR for IMS</td>
<td></td>
<td>1</td>
<td></td>
<td>ACTIVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MainView for IMS</td>
<td></td>
<td>1</td>
<td></td>
<td>ACTIVE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message Advisor for IMS</td>
<td></td>
<td>1</td>
<td></td>
<td>ACTIVE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The help for the Product Name field provides brief product descriptions.

The following hyperlink is provided on the view:

View a list of IMS products
Hyperlink from | To access
--- | ---
Count | BMC IMS Products Detail view (IPRDDTL), which shows information about the selected product

BMC IMS Products Detail view (IPRDDTL)

The BMC IMS Products Detail view (IPRDDTL) displays a list of the BMC products for IMS that are installed in the IMS control regions in the context set by the user.

The IPRDDTL view displays one row for each IMS on which a product is installed.

If you access the IPRDDTL view by hyperlinking from IPRDSUM, the view displays only information about the product you selected on the IPRDSUM view. If you access the view by entering its name on the COMMAND line, it displays information about all installations of BMC products for IMS.

No hyperlinks are available on the view.

View product parameters

Use the product parameter views to display the settings in the IMFBEX00 and IMFECPO0 member of BBPARM.

The IMFBEX00 member of the BBPARM data set defines various product functions, such as trace options, trace logging options, processing limits, and data collection options.

The IMFECPO0 member of the BBPARM data set affects what the Event Collector does during an IMS session.

The following product parameter views are provided:

- “IMFBEX Summary view (IBEXSUMR)” on page 494
The IMFBEX Summary view (IBEXSUMR) displays the parameter settings in the IMFBEX00 member of the BBPARM library. The parameters define various product functions, such as trace options, trace logging options, processing limits, and data collection options.

The IBEXSUMR view displays one row for each IMFBEX00 member contained in the current context. Each column in a row is a parameter in the IMFBEX00 member.

You can access the IBEXSUMR view by:

- Entering IBEXSUMR on the COMMAND line
- Entering VIEWS on the COMMAND line and selecting IBEXSUMR from the list of views
- Selecting Misc. PAS Options on the IMS Easy Admin Menu (EZIADMIN)
- Selecting IMFBEX Summary on the IMFECP Summary view (IECPSUMR)
- Selecting Miscellaneous PAS parameters (IMFBEX00) on the Set/View Product Level Options display

Figure 311: IMFBEX Summary view (IBEXSUMR)

<table>
<thead>
<tr>
<th>IMSID</th>
<th>MVS</th>
<th>DATASPCE1</th>
<th>DATASPCE2</th>
<th>DCIOAL1</th>
<th>DCIOAL2</th>
<th>DCIOAL3</th>
<th>DCIOAL4</th>
<th>EIC1</th>
<th>EIC2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I12G</td>
<td>SJSC</td>
<td>500</td>
<td>500</td>
<td>3500</td>
<td>1000</td>
<td>3500</td>
<td>500</td>
<td>&lt;none&gt;</td>
<td>&lt;none&gt;</td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSID</td>
<td>IMFBEX Detail view (IBEXDTLR), which displays detailed information for a specific IMFBEX00 member in the BBPARM library</td>
</tr>
</tbody>
</table>
IMFBEX Detail view (IBEXDTLR)

The IMFBEX Detail view (IBEXDTLR) displays detailed information for a specific IMFBEXnn member in the BBPARM library. Each field is a parameter in the IMFBEXnn member.

You access the IBEXDTLR view by hyperlinking from the IMFBEX Summary view (IBEXSUMR).

No hyperlinks are available on the view.

IMFECP Summary view (IECPSUMR)

The IMFECP Summary view (IECPSUMR) displays the parameter settings in the IMFECP00 member of the BBPARM library. The parameters affect what the Event Collector does during an IMS session.

One row is displayed for each IMFECP00 member contained in the current context. Each column in a row is a parameter in the IMFBEX00 member.

You can access the IBEXSUMR view by:

- Entering IECPSUMR on the COMMAND line
- Entering VIEWS on the COMMAND line and selecting IECPSUMR from the list of views
- Selecting Event Collector Options on the IMS Easy Admin Menu (EZIADMIN)
- Selecting **IMFEC** Summary on the IMFBEX Summary view (IBEXSUMR)

- Selecting **Event Collector parameters (IMFECPP00)** on the Set/View Product Level Options display

**Figure 313: IMFEC Summary view (IECPSUMR)**

<table>
<thead>
<tr>
<th>IMSID</th>
<th>MVS</th>
<th>DATASPCE1</th>
<th>DATASPCE2</th>
<th>DCIOAL1</th>
<th>DCIOAL2</th>
<th>DCIOAL3</th>
<th>DCIOAL4</th>
<th>EIC1</th>
<th>EIC2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I12G</td>
<td>SJSC</td>
<td>500</td>
<td>500</td>
<td>3500</td>
<td>1000</td>
<td>3500</td>
<td>500</td>
<td>&lt;none&gt;</td>
<td>&lt;none&gt;</td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSID</td>
<td>IMFEX Detail view (IBEXDTLR), which displays detailed information for a specific IMFEX00 member in the BBPARM library</td>
</tr>
</tbody>
</table>

**EC Parm Detail view (IECPDTRLR)**

The EC Parm Detail view (IECPDTRLR) displays detailed information for a specific IMFECPPnn member of a BBPARM library. Each field is a parameter in the IMFECPPnn member.

You access the IECPDTRLR view by hyperlinking from the IMFEC Summary view (IECPSUMR).

**Figure 314: EC Parm Detail view (IECPDTRLR)**

<table>
<thead>
<tr>
<th>MEMBER NAME</th>
<th>FA Collection</th>
<th>Data Collection</th>
<th>RecoveryParms</th>
</tr>
</thead>
<tbody>
<tr>
<td>I12GECPC</td>
<td>BMP............</td>
<td>YES BHTO.........</td>
<td>ON ABCOUNT.....</td>
</tr>
<tr>
<td></td>
<td>BMPTRQ..</td>
<td>YES BILLQHD.......</td>
<td>YES BACKOUT.....</td>
</tr>
<tr>
<td></td>
<td>CICS...........</td>
<td>YES CPU...........</td>
<td>ALL DEPREC.......</td>
</tr>
<tr>
<td></td>
<td>CPLICB2.......</td>
<td>TERM CPUHVHD.......</td>
<td>YES RGNIOPT.......</td>
</tr>
<tr>
<td></td>
<td>CPLICDLI......</td>
<td>APSB DBFPLVL.......</td>
<td>1 TIMERR.......</td>
</tr>
<tr>
<td></td>
<td>CPLICITRN......</td>
<td>NO DBFP...........</td>
<td>YES</td>
</tr>
<tr>
<td></td>
<td>DBTNAM........</td>
<td>DB DBFPLVL.......</td>
<td>3 Miscellaneous.</td>
</tr>
<tr>
<td></td>
<td>DBTS...........</td>
<td>200 DBIO...........</td>
<td>999</td>
</tr>
<tr>
<td></td>
<td>DBTS4BMP.......</td>
<td>200 ETIMEELP.......</td>
<td>YES MSCCLCLOCK......</td>
</tr>
<tr>
<td></td>
<td>DTSQLCPU.......</td>
<td>YES ETIMEIWT.......</td>
<td>YES MXPRSO.........</td>
</tr>
<tr>
<td></td>
<td>TRNSYNC.......</td>
<td>YES MSGQBUF.......</td>
<td>1000 SYSID.......</td>
</tr>
<tr>
<td></td>
<td>ZTIME.........</td>
<td>YES MSGQTIME.......</td>
<td>YES TELON.......</td>
</tr>
</tbody>
</table>
Set/View Product Level Options display

The Set/View Product Level Options display shows the various product PAS parameter processing options that can be dynamically modified. Certain product level actions can also be performed from here.

You can access the Set/View Product Level Options display by selecting Product Level Options on the IMS Easy Admin Menu (EZIADMIN).

Figure 315: Set/View Product Level Options display

<table>
<thead>
<tr>
<th>COMMAND ===&gt;</th>
<th>SCROLL ===&gt;</th>
<th>CSR</th>
<th>MORE: +</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Options:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-reference limit</td>
<td>5000</td>
<td>Enforce Xref filters</td>
<td>NO</td>
</tr>
<tr>
<td>Trace max reads</td>
<td>50000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trace max writes</td>
<td>50000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared Queue Data Server: (Select one)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CQS shared queue active?</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Install in IMS</td>
<td>(Yes)</td>
<td>Status</td>
<td></td>
</tr>
<tr>
<td>Uninstall from IMS</td>
<td>(Yes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enable in the PAS</td>
<td>(Yes)</td>
<td>Status</td>
<td></td>
</tr>
<tr>
<td>Disable in the PAS</td>
<td>(Yes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSplex Data Server: (Select one)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enable in the PAS</td>
<td>(Yes)</td>
<td>Status</td>
<td>Enabled</td>
</tr>
<tr>
<td>Disable in the PAS</td>
<td>(Yes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>View parmlib member:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Event Collector parameters (IMFECPO0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miscellaneous PAS parameters (IMFBEX00)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Select the following fields on the display to access the indicated views:

<table>
<thead>
<tr>
<th>Field</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event Collector parameters (IMFECPO0)</td>
<td>IMFECPO Summary view (IECPSUMR), which displays the parameter settings in the IMFECPO0 member of the BBPARM library</td>
</tr>
<tr>
<td>Miscellaneous PAS parameters (IMFBEX00)</td>
<td>IMFBEX Summary view (IBEXSUMR), which displays the parameter settings in the IMFBEX00 member of the BBPARM library</td>
</tr>
</tbody>
</table>

View PAS, data refresh, and CPU usage information

The product provides views that display information about the product address space (PAS), the number of data refreshes for data used by the product, and about CPU usage by the product.

The following views are provided:
PAS Information view (PASINFO)

The PAS Information (PASINFO) view provides general information about the product address space (PAS) and the target.

It also shows information about traces and timers, including status information, some statistics, default parameters that are in effect, and a summary of the active timer requests. The information is shown for the BBI-SS that is associated with the specified target.

Access the PASINFO view by entering PASINFO on the COMMAND line.

Figure 316: PAS Information view (PASINFO)

| PAS ID....... | MC45       | BBI-RELEASE..... | 2.6.0     | START TIME 08:24:06 |
| TOTAL BLOCKS. | 300        | UNUSED BLOCKS... | 299       |                      |
| SERV CALLS... | 259        | WARNINGS WRITTEN | 0         |                      |
| INTERVAL..... | 00:01:00   | ROUTE CODES...... | NONE      | DESC...... NONE      |
| DWAIT PARMS.. | ............ | CURPER...         | 00:01:00  | HISTORY... 00:30:00 |
| STORAGE...... | 200K       | TRBUFF........... | 10        | TRSIZE.... 100K      |
| TRTIME....... | 0          | TAREUSS.......... | Y         | TRCYL.... 2          |
| TRSUFFIX..... | DATA       | TRMPREFIX........ | BOLTSMS   |                     |
| TRVOLS....... | BAB320     |                  |           |                     |
| TRMSMCL...... | ............ | TRMSDCL.......... | TRMSSCL... |                     |
| TRDATA....... | Y          | TRMAXRD.........  | 400000    | TRMAXWR... 40000     |
| EC TRACE BFRS | 0          | IN USE.........  | 0         |                     |
| Target       | Type       | Active | Init | Compl | Held | Invalid | Locked | Quiesced | Restarted |
| TOTAL        | -ALL-      | 1      | 0    | 0     | 0    | 0       | 0      | 0        |
| I10Y         | MONITOR    | 1      | 0    | 0     | 0    | 0       | 0      | 0        |

The following hyperlinks are provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAS ID</td>
<td>List of targets from which to select to change the context</td>
</tr>
</tbody>
</table>
Hyperlink from | To access
---|---
Target | Active Monitors view (AT or MONACTV) for that target, which displays the list of monitors that have been started for the target
Active | Active Monitors view (AT or MONACTV) for that target, which displays the list of monitors that have been started for the target
Other highlighted fields | Monitor Overview (ISERV) view, to show monitors with the status indicated by the field header

### Product CPU Utilization view (IPUCPU)

The Product CPU Utilization view (IPUCPU) shows CPU and zIIP usage for a MainView for IMS Online or MainView for DBCTL product address space (PAS).

You can access the IPUCPU view by entering IPUCPU on the COMMAND line.

#### Figure 317: Product CPU Utilization view (IPUCPU)

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>MainView Window Interface (V6.1.00) (MAX)</th>
<th>COMMAND</th>
<th>SCROLL</th>
<th>CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>24MAY2013</td>
<td>13:50:43</td>
<td>-----------------------------------------</td>
<td>-------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>COMMAND</td>
<td>===&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CURR WIN</td>
<td>===&gt; 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALT WIN</td>
<td>===&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>W1</td>
<td>=IPUCPU====I12G51CT=*========24MAY2013==13:50:39==MVIMS==D==1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product CPU Utilization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target</td>
<td>I12G51CT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMSID</td>
<td>I12G</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>View Data Refreshes</td>
<td>178</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total PAS ECPU seconds</td>
<td>61.221</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% FA processor Task</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% View Data Tasks</td>
<td>13.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Master Task</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Sampler Control Task</td>
<td>0.55</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Sampler Task/SRB</td>
<td>24.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% zIIP</td>
<td>4.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Subinterval Task</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% Other</td>
<td>61.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sampler Task/SRB seconds</td>
<td>14.757</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% zIIP</td>
<td>19.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>zIIP seconds</td>
<td>2.892</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>zIIP on CP seconds</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following hyperlink is provided on the view:

<table>
<thead>
<tr>
<th>Hyperlink from</th>
<th>To access</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Data Refreshes</td>
<td>Data Refreshes view (IPUVDR), which shows how many data refreshes were done for the various types of data shown on MainView for IMS Online or MainView for DBCTL views</td>
</tr>
</tbody>
</table>
Data Refreshes view (IPUVDR)

The Data Refreshes view (IPUVDR) shows how many data refreshes were done for the various types of data shown on MainView for IMS Online or MainView for DBCTL views.

You can access the IPUVDR view by:

- Entering IPUVDR on the COMMAND line
- Hyperlinking from View Data Refreshes on the Product CPU Utilization view (IPUCPU)

Figure 318: Data Refreshes view (IPUVDR)

```
24MAY2013  13:56:19 ------ MAINVIEW WINDOW INTERFACE (V6.1.00) (MAX)--------
COMMAND ====> SCROLL ===> CSR
CURR WIN ====> 1        ALT WIN ====>
W1 =IPUVDR============I12G51CT=*========24MAY2013==13:56:19====MVIMS====D====1
Data Refreshes
Target................... I12G51CT
APPCC........................ 0    Message Queue Pool Stats     0
Balancing Groups (BALG)..< 0    MFS........................... 0
Class Activity............. 0    MSC........................... 0
CORT - Tran delay........... 0    ODBM.......................... 0
CORT - Tran I/O delay..... 0    OTMA.......................... 0
CORT - Tran Lock delay.... 0    OTMA Descriptors............. 0
CORT - Tran Latch delay.. 0    PI Locking.................... 0
Dashboard, IMSplex, other 0    Pool - AEBIN64.............. 0
Databases................... 0    Pool - MFS.................. 0
Database Datasets.......... 0    Pool - PSB.................. 0
Database/Buffer Activity.. 0    Pool - DMB.................. 0
DBED Areas.................. 0    Pool - IMS.................. 0
Dispatcher Statistics..... 0    Pool - fixed non-CBT...... 0
Energizer CMD Output...... 0    Product Parameters........ 37
Energizer Logger Trace.... 0    Programs..................... 0
Fast Path Buffers......... 0    Real Storage.............. 0
```

No hyperlinks are available on the view.
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