MAINVIEW® for CICS Online Services Reference Manual

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bmcsoftware

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- find worldwide BMC Software support center locations and contact information, including e-mail addresses, fax numbers, and telephone numbers

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- operating system and environment information
  - machine type
  - operating system type, version, and service pack or other maintenance level such as PUT or PTF
  - system hardware configuration
  - serial numbers
  - related software (database, application, and communication) including type, version, and service pack or maintenance level
- sequence of events leading to the problem
- commands and options that you used
- messages received (and the time and date that you received them)
  - product error messages
  - messages from the operating system, such as `file system full`
  - messages from related software

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About This Book

MAINVIEW for CICS is the BMC Software performance measurement, tuning, and analysis product for CICS. MAINVIEW for CICS consists of the following components:

Online services
MAINVIEW views and full-screen services that show monitored CICS performance statistics.

PERFORMANCE REPORTER
A batch facility that creates statistical reports about CICS performance and resource usage.

This book describes how to use the MAINVIEW for CICS online services.

Who Should Read This Book

This book is intended for anyone who uses MAINVIEW for CICS to manage their site's CICS regions. Readers should be familiar with their site's operating environment and understand CICS concepts.

How This Book Is Organized

This book is organized as follows. In addition, a glossary of terms and an index appear at the end of the book.

Chapter/Appendix	Description
Chapter 1, "Introduction" on page 1	Provides an overview of MAINVIEW for CICS, its data collection techniques, and its interface.
Chapter 2, "Monitor Views" on page 21	Describes the MAINVIEW for CICS monitor views, which provide information about active data collection monitors and displays of the collected data.
Chapter 3, "Workloads and Workload Views" on page 35	Describes how to create and maintain MAINVIEW for CICS workload definitions, including an overview of the process and descriptions of the workload views.
Chapter 4, "Operation Views" on page 59	Describes the MAINVIEW for CICS operation views, which provide information about the current operation of CICS regions, both individually and across the CICSplex environment.

Chapter/Appendix	Description
Chapter 5, “Region Views” on page 91	Describes the MAINVIEW for CICS region views, which provide high-level information about the status, performance, and system parameters of CICS regions.
Chapter 6, “Resource Views” on page 119	Describes the MAINVIEW for CICS resource views, which provide information about the resources that are defined to CICS regions.
Chapter 7, “Task Views” on page 167	Describes the MAINVIEW for CICS task views, which provide information about the status and resource usage of tasks that are currently running on CICS regions.
Chapter 8, “PERFORMANCE Option” on page 201	Describes the full-screen PERFORMANCE option.
Chapter 9, “GRAPHICS Option” on page 205	Describes the full-screen GRAPHICS option.
Chapter 10, “History Views” on page 221	Describes the history views which provide records and statistics for a user-defined period.
Chapter 11, “SERVICE Option: Application Tracing” on page 299	Describes the full-screen TRACE option.
Chapter 12, “STATUS Option” on page 367	Describes the full-screen STATUS option.
Chapter 13, “NETWORK Option” on page 383	Describes the full-screen NETWORK option.
Chapter 14, “FILES Option” on page 387	Describes the full-screen FILES option.
Chapter 15, “PROGRAMS Option” on page 417	Describes the full-screen PROGRAMS option.
Chapter 16, “STORAGE Option” on page 429	Describes the full-screen STORAGE option.
Chapter 17, “CYCLE SETUP Option” on page 439	Describes the full-screen CYCLE SETUP option.
Chapter 18, “LOG DISPLAY Option” on page 447	Describes the full-screen LOG DISPLAY option.
Chapter 19, “Miscellaneous General Services Options” on page 451	Describes miscellaneous full-screen General Services options.
Appendix A, “Cross-References for Graph Fields” on page 453	Lists all the data fields displayed in MAINVIEW for CICS full-screen graphs.
Appendix B, “DFHTCL00 Values” on page 467	Describes the data that is presented for transaction class DFHTCL00 in the MAINVIEW for CICS transaction class views.

Recommended Reading

Books and online information about MAINVIEW for CICS are divided into three categories:

- Installation, implementation, and customization
- Online services
- PERFORMANCE REPORTER

Installation, Implementation, and Customization Documentation

Separate books describe the procedures to install MAINVIEW for CICS, implement the MAINVIEW subsystems, and customize the product. The following list shows the recommended order in which the books should be read to complete these tasks.

- Installation

  The *OS/390 and z/OS Installer Guide* describes the procedures for installing MAINVIEW for CICS. The *MAINVIEW Installation Requirements Guide* identifies resource requirements such as software, storage, product libraries, and FMIDs.

- Subsystem Implementation

  After installation, the MAINVIEW subsystems must be prepared to support MAINVIEW for CICS. Procedures for this task are in the *MAINVIEW Common Customization Guide*.

- Subsystem Communication

  MAINVIEW Alternate Access establishes communication between MAINVIEW products and EXCP or VTAM through ISPF without requiring an active TSO session. The *MAINVIEW Alternate Access Implementation and User Guide* describes procedures to establish communication between MAINVIEW product subsystems and VTAM or EXCP.

- Product Customization

  The *MAINVIEW for CICS Customization Guide* describes the procedures to customize MAINVIEW for CICS for specific site conditions.

- Security

  Security can be implemented for MAINVIEW products with external security managers (ESMs) through the MVS security authorization facility (SAF) interface. You can find the SAF resource definitions for MAINVIEW for CICS listed in *Implementing Security for MAINVIEW Products*. This book provides procedures to create SAF resource definitions for the MAINVIEW services and commands in MAINVIEW for CICS.

Online Services Documentation

Documentation of the MAINVIEW for CICS online services consists of this book, *Getting Started with MAINVIEW for CICS*, the *Monitors Guide*, and a help system. This book provides complete descriptions of the online tools you can use to monitor and manage CICS regions. It also provides an introduction to the product and offers exercises to help you get started with the online services.

The MAINVIEW for CICS help system consists of a tutorial, specific service help, and an online message library.

- An online tutorial provides an introduction to general services that are available to MAINVIEW for CICS with the MAINVIEW subsystem. The tutorial is listed as an option on the Primary Option Menu.
- All of the MAINVIEW for CICS services and views include online help. The online help extends also to the fields within a view or service. By placing the cursor directly over a field within a view and pressing the HELP key, you can get a functional description of the field.
- The General Services MESSAGES option can be accessed from the MAINVIEW for CICS Primary Option Menu. The MESSAGES option displays a complete description of any error message or abend code produced by a MAINVIEW product. Message descriptions are stored in the MSGLIB data set, which also can be viewed online with the ISPF BROWSE facility.

PERFORMANCE REPORTER Documentation

Documentation of the MAINVIEW for CICS batch reporting system consists of a single book. The *MAINVIEW for CICS PERFORMANCE REPORTER User Guide* is used by data center administrators or analysts to produce reports that show CICS performance trends. This book describes predefined PERFORMANCE REPORTER batch programs and the use of the Performance Reporting Language (PRL) to create user-defined batch reports. It contains report samples and explanations of the contents of the reports.

Related Reading

To use MAINVIEW for CICS effectively, you should understand the CICS concepts and principles described in the following IBM publications:

- *CICS Resource Definition Guide*, SC33-0509
- *CICS Supplied Transactions*, SC33-0240
- *MVS/ESA Application Development Macro Reference Codes*, GC28-1822

Chapter 1. Introduction

The online services component of MAINVIEW for CICS can be used in an ISPF session to review the status and performance of CICS regions, to track resource usage, and to resolve problems.

The data collected by MAINVIEW for CICS is also used by the PERFORMANCE REPORTER component, which is a batch report facility. PERFORMANCE REPORTER uses the data to produce reports with the transaction information and operational statistics that you request. For information about producing these reports, refer to the *MAINVIEW for CICS PERFORMANCE REPORTER User Guide*.

An Overview of MAINVIEW for CICS

MAINVIEW for CICS uses real-time data to show the performance of CICS regions. The MAINVIEW for CICS data collectors sample and measure system workloads or system resources at the intervals you predefine. You can monitor a variety of variables (for example, transactions, average response times, and pool utilization percentages). When a measured workload or resource exceeds a predefined threshold, MAINVIEW for CICS issues a warning message.

If you have a CICS environment that includes multiple regions operating in several MVS images, you can use the MAINVIEW for CICS single system image (SSI) views to display data about the real-time and recent performance of multiple systems. These views are context-oriented, which means data can be displayed for a single target CICS region or a group of targets.

Note: SSI views are displayed in MAINVIEW windows mode. All other online services operate in full-screen mode.

For a target CICS region, you can monitor current and ongoing performance status, including timer-driven requests. By monitoring transactions and response times, you can focus on problem areas immediately, thus preventing critical situations from developing. Online graphs of one or more resources help you to maintain the distribution of workloads that maximize resources. You can use displays of past transactions and of application trace information for review and help in making timely decisions.

For system programmers and network operators who need tools to enable control of CICS operation, MAINVIEW for CICS provides a number of functions to examine a target CICS region. Using these functions, you can manage your network. You can also monitor storage information and manage files, data sets, and programs.

The MAINVIEW General Services provide basic tools for the smooth operation of MAINVIEW for CICS. You will find these tools useful, regardless of your CICS environment or the ways you use other MAINVIEW for CICS functions.

MAINVIEW for CICS Data Collection

MAINVIEW for CICS collects the data for online displays in one of two ways:

- Data about CICS resources such as programs, files, and connections is collected directly from CICS.
- Data that is not available directly is extracted from active CICS regions by the MAINVIEW for CICS data extractor.

The MAINVIEW for CICS data extractor is not required to be active. However, when it is active, it provides significant additional data about the tasks and transactions that are running in a CICS region. If the extractor is not active, displays are limited to the data that CICS offers about its resources.

The data extractor can be started by one of the following methods:

- Specify a Program List Table (PLT) entry. A PLT entry starts the data extractor automatically at CICS startup.
- Invoke one of the following transactions to start the data extractor manually:
  - SMN2 from within a CICS region.

    The SMN2 transaction is needed when the data extractor and BBI-SS PAS communications are not started by the PLT or through the MVS console. It manually starts and stops the communications and data extractor components. It schedules FST2 to perform its functions and reports on the status of the components.
  - FST2 from an MVS console.

    The FST2 transaction starts, stops, and controls the communications and data extractor components under CICS. It normally runs asynchronously (without a terminal), but can be entered from an MVS console defined to CICS.

Data collected by the extractor is stored in VSAM data sets that are defined when MAINVIEW for CICS is implemented at a site. A detail performance record is created for each transaction that runs. The output is written to the detail transaction file, which is called CMRDETL. All other records are written periodically, as specified by you, to the CICS statistical file called CMRSTAT. For information on defining these data sets, refer to the *MAINVIEW for CICS Customization Guide*.

The remainder of this section describes the types of data that are available from the MAINVIEW for CICS data extractor.

Transaction History

The primary output of the MAINVIEW for CICS data extractor is the detail history record that is written for every transaction that runs in a CICS region. For each transaction, the data extractor records essential transaction information such as the transaction's date and time, response time, CPU usage, file I/O counts, and resource consumption. These transaction history records can be displayed online with the history views.

Figure 1 shows an example of the primary history view CHIST. CHIST provides information about transactions in the current context that ran during a specified period, and, optionally, that satisfied a filter condition.

```
04MAR2002  10:56:28 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST=============BCVCD610=*========04MAR2002==08:50:16====MVCICS===D===46
Task    CICS   Lcl Task   Lcl Task Tran Response  Storage File    User   Term
Num    System  End Date   End Time  ID    Time      HWM   Calls    ID     ID
    7 BCVCD610 04MAR2002  07:53:57 CPLT    6.8835   11008     0 BCVM
   23 BCVCD610 04MAR2002  07:53:58 CWBG    0.0368       0     0 BCVM
   27 BCVCD610 04MAR2002  07:53:58 CSFU    0.0270       0     0 BCVM
   26 BCVCD610 04MAR2002  07:53:58 CRSQ    0.0273       0     0 BCVM
   28 BCVCD610 04MAR2002  07:53:58 CEJR    0.0274       0     0 BCVM
   29 BCVCD610 04MAR2002  07:53:58 CXRE    0.0347       0     0 BCVM
   30 BCVCD610 04MAR2002  07:53:58 CLS1    0.0082       0     0 BCVM
   31 BCVCD610 04MAR2002  07:53:58 CLS1    0.0179       0     0 BCVM
   32 BCVCD610 04MAR2002  07:54:00 FIC2    0.0439    3552     0 BCVM
   33 BCVCD610 04MAR2002  07:55:00 FIC2    0.0026    3552     0 BCVM
   34 BCVCD610 04MAR2002  07:56:00 FIC2    0.0039    3552     0 BCVM
   35 BCVCD610 04MAR2002  07:57:00 FIC2    0.0025    3552     0 BCVM
```

Figure 1. Sample CHIST View

Each line of data in the view can be expanded to present detailed information about a given transaction.

Note: For more information on the history views, refer to Chapter 10, "History Views" on page 221.

Expanded Task Data

The MAINVIEW for CICS data extractor is also the primary source of data for the TASK and CREGION views. In TASK views, the extractor provides data related to the files, database management systems (DBMS), and fourth-generation languages (4GL) in use by a task. In CREGION views, the extractor provides response time and CPU usage statistics for the transactions running in a CICS region.

Figure 2 on page 4 shows an example of the data provided in a TASK detail view.

```
18FEB2002  08:42:07 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKD============(ALL======*=======)18FEB2002==08:42:07====MVCICS===D====1
  Target...........         BCVCD610 Stg Isolation...........               NO
  Task ID..........                4 Purge Status.............             NO
  Tran ID..........             CSOL Dynamic Backout..........             NO
  Task Status......          Suspend Deadlock Timeout.........             NO
  Profile..........         DFHPPF02 Read Timeout............              0
  Transaction Class         DFHTCL00 Tran Dumps..............            YES
  Priority.........              254 CMD Level Sec............             NO
  Facility ID......             NONE RES Level Sec............             NO
  Facility Name....                  Clear Storage............             NO
  Transaction Info.           System Task Data Key............           CICS
  User ID..........             BCVM Task Data Loc............            ANY
  Network..........                  Trace Type...............       STANDARD
   Name............              N/A Runaway Time.............          20000
  LU Name..........                  TWA Size.................              0
  BMS Map..........                  Screen Size..............            N/A
  Program..........                  Dynamic Routing..........             NO
   First...........           DFHSOL Routing Profile..........
   Current.........           DFHSOL Rem Trans Name...........
  Unit Of Work.....                  Remote System ID.........
   Recovery ID..... B735436ABAC2FD83
  Attach Date......        18FEB2002 Links to other forms.....
  Attach Time......      06:10:52.00 .Elapsed Time Components.
  Elapsed Time.....         02:31:15 .Suspend Time Components.
  Suspend Type.....         SODOMAIN .Storage Utilization.....
  Suspend Resource.         SO_NOWOR .CICS Request Statistics.
  Suspend Time.....         00:25:25 .FEPI/Terminal Statistics
  Storage Used.....             1520 .Storage Addresses.......
  Bridge Tran ID...                  .Active Sessions for Task
  Terminal Net Id..                  .Tasks with same UOW.....
  Terminal RLUNAME.                  .CICS BTS Statistics.....
                                     .CICS Web Statistics.....
```

Figure 2. Sample TASKD Detail View

Note: For more information on the TASK views, refer to “Task Views” on page 167.

Database Management Systems (DBMS)

MAINVIEW for CICS monitors data-gathering activity against CICS and database files, as well as the rate of this activity. Current activity against a DBMS is displayed on the TASKD detail view. Tasks that are waiting for access to a database are characterized by the following module identifiers:

ADA	Adabas
DAT	Datacom/DB
DB2	DB2
DL/I	Data Language/I
SUP	Supra
S2K	System 2000

The respective file names against which the requests were made are listed in the Suspend Resource column of TASKD.

If DBMS files are accessed during a transaction execution, current file I/O activity is listed in the TASKFIL view, as shown in Figure 3.

```
18APR2000  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKFIL==========(ALL======*=======)18APR2000==12:06:40====MVCICS========1
CMD Task Target   Tran T   File     File   F Count  Elapsed  Average  Elpased
---  ID           ID   S   Name     Type   S        I/O Time I/O Time TaskTime
      23 CICSPRD1 JNL2 S DFHCSD   CICS FCT       1     0.147    0.013 00:57:19
      24 CICSPRD1 JNL1 S DFHCSD   CICS FCT      11     0.245    0.029 00:59:07
```

Figure 3. Sample TASKFIL View

The History File List display shows past file I/O activity, as shown in Figure 4.

```
BMC SOFTWARE -------MAINVIEW FOR CICS HISTORY FILE LIST-------- TIME: 12:11:44
COMMAND ===>                                                CICS ===> CICSPROD
     EXPANSION FOR EQWK      ENDED AT 05:04:00 ON 04/18/2000
  FILENAME    TYPE         COUNT   ELAPSED TIME   AVERAGE TIME
  MASTER      CICS FCT         3          0.593          0.198
  AD002031    ADABAS           5          5.003          1.000
  DA002031    DATACOM          7          7.007          1.001
  IDMS0004    IDMS             3          3.007          1.002
```

Figure 4. Sample History File List Display

Fourth-Generation Languages (4GL)

MAINVIEW for CICS monitors the data collection efforts of 4GLs and the speed at which this activity is taking place. Current activity of 4GLs is displayed on the TASKD4 detail view. Past activity of 4GLs is measured against the response time value specified in the MAXRESP= parameter of the CMRSOPT module. This activity can be displayed by the HISTORY service. The name of the 4GL appears in the Program column of the History Summary display. Details of any listing can be displayed in an expanded screen.

Graphing of 4GL resources is initiated when the TYPE=PANEL statement of CMRSOPT is specified along with its parameters. The performance of 4GL panels is presented in graphs when you perform one of the following actions:

- Select the 4GL option from the GRAPH Master Menu.
- Issue the **GRAPH PANL** command.

Application Packages (SAP)

MAINVIEW for CICS extracts the following information after SAP exits are installed:

- SAP transaction IDs displayed with online and HISTORY services
- SAP transaction type (for example, background, long running, dialog)
- Work area waits
- SAP user ID

All SAP work area names have a prefix of ZTTA that can be identified in the following online services:

- TASK views
- Graphs

Graphs can be created using internal SAP work area names as resources. These graphs show which SAP work areas are suffering from performance bottlenecks.

Workload Data

All of the data displayed in MAINVIEW for CICS workload views comes from the data extractor. For example, the COBJ view shown in Figure 5 reports on the response time and elapsed time performance of transactions in a given workload.

```
18FEB2002  11:09:47 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =COBJ=============(ALL======*=======)18FEB2002==11:09:47====MVCICS===D====9
CMD Workload Intvl       % <= Resp Goal Resp  Goal Avg     Tran  Composite Targ
--- Name---- Time-       0.....50...100 Goal-    % Resp--- Count Workload- ----
    ALL      11:09 100.0                 1.00  100   0.002     9 ALL       BCVC
    ACCTREV  11:09 100.0                 1.00   95   0.002     9 FINANCE   BCVC
    TRANWKLD 11:09 100.0                 1.00   95   0.002     9 TESTWKLD  BCVC
    ACCTREV  11:09 100.0                 1.00   95   0.002     9 FINANCE   BCVC
    TRANWKLD 11:09 100.0                 1.00   95   0.003     9 TESTWKLD  BCVC
    ACCTREV  11:09 100.0                 1.00   95   0.003     9 FINANCE   BCVC
    TRANWKLD 11:09 100.0                 1.00   95   0.002     9 TESTWKLD  BCVC
    JHWORK2  11:09 -----                 0.10  100   0.000     0 JHW2      BCVC
    JHWORK1  11:09 -----                 3.00  100   0.000     0 JHW1      BCVC
```

Figure 5. Sample COBJ Workload View

The CWOVER view and its detail form illustrate how various forms of delay contributed to the average transaction response time in a workload. Figure 6 shows an example of the CWOVER workload view.

```
18FEB2002  11:07:18 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CWOVER===========(ALL======*=======)18FEB2002==11:07:18====MVCICS===D====9
CMD Workload Intvl Number  Avg     %   %   %   %   %   %   %   %   %   %   %
--- -------- Time- Trans-  Resp-   Dsq Cpu Cpw TC  TD  TS  FC  DB  IRC JC  PC
    TRANWKLD 11:07       7   0.003      30  57
    ACCTREV  11:07       7   0.003      30  57
    ALL      11:07       7   0.002  24  59   6
    TRANWKLD 11:07       7   0.002      71
    ACCTREV  11:07       7   0.002      71
    ACCTREV  11:07       7   0.002      57  14
    TRANWKLD 11:07       7   0.002      57  14
    JHWORK2  11:07
    JHWORK1  11:07
```

Figure 6. Sample CWOVER Workload View

Note: For more information on workload views, refer to “Workloads and Workload Views” on page 35.

Starting MAINVIEW for CICS

When you start a MAINVIEW for CICS session, you have some choices about how you would like to work with the product. You can choose

- The MAINVIEW display mode, either windows or full-screen
- One or more CICS targets to be the context for your work
- The initial screen to be displayed

This section describes how to set default parameters for every session and how you can change those parameters each time you sign on.

Setting Your Session Defaults

To establish the default parameters for a MAINVIEW for CICS session:

1. From the MAINVIEW Selection Menu, select Option 0.1, **Parameters--Windows Mode**.

   The MAINVIEW Parameter Editors menu is displayed, as shown in Figure 7.

```
------------------------- MAINVIEW Parameter Editors -------------------------
OPTION  ===>

       0  ISPF PARM    - Specify ISPF terminal parameters
       1  CONTROL      - Session control parameters
       2  DISPLAY      - Information display parameters
       3  KEYS         - Change PFKEY Definitions
       4  DATE         - Specify date format
       5  ATTRIBUTES   - Set display attributes
       V  VistaPoint   - MAINVIEW VistaPoint Parameter Defaults
       C  MVCICS       - MAINVIEW for CICS Parameter Defaults
```

Figure 7. MAINVIEW Parameter Editors Menu

2. Select Option C, **MVCICS**.

   The MAINVIEW Default Parameters panel is displayed, as shown in Figure 8 on page 8.

```
------------------------- MAINVIEW Default Parameters -------------------------
COMMAND  ===>

  Confirm parameters for MAINVIEW for CICS

Context         ===> ALL        Context to use when initiating a session

Screen          ===> MVCICS     Initial Screen to be displayed, blank for MAIN

Mode            ===> WINDOW     Initial Mode, Window/Fullscreen

Confirm Panel   ===> YES        Display Parameter confirmation panel, Yes/No

  Press Enter or END to save updates or HELP for more information.
  Enter CANCEL to exit without saving changes.

  Specify Confirm panel=Yes to display the confirmation panel when
  selecting this product from the MAINVIEW selection menu.
```

Figure 8. MAINVIEW Default Parameters Panel for MAINVIEW for CICS

You can use this panel to specify the default parameters for your MAINVIEW for CICS sessions. These parameters will be in effect each time you sign on, unless you change them on the parameter confirmation panel for a particular session.

Context

For windows mode, identify the default frame of reference for the session. The context can be

– A specific CICS target, such as CICSPRD1.

– A named group of targets that have been identified with the CONTEXT command. This type of context is known as a single system image (SSI) context. The default is **ALL**, which includes all active CICS regions being managed by MAINVIEW for CICS.

Screen

For windows mode, identify the initial screen to be displayed when you sign on.

MVCICS Provides a default Easy Menu (EZCFSSI) for use with an SSI context.

The EZCSSI menu, which MVCICS used to display, is now available as a screen called MVCSSI.

MVCTGT Provides an Easy Menu (EZCICS) for use with a target CICS.

MVCFAST Provides an Easy Menu (EZCFAST) for the advanced user.

screen_name Identifies a custom screen that you or your system administrator has created with the SAVESCR command.

blank Displays the MAIN view, which lists the types of MAINVIEW for CICS views.

Mode

Specify the primary display mode in which you want to work.

WINDOW MAINVIEW windows mode (the default). The values you specify in the Context and Screen fields are in effect when you sign on.

FULLSCREEN MAINVIEW full-screen mode. The MAINVIEW for CICS Primary Option Menu is displayed when you sign on. The Context and Screen fields are ignored in full-screen mode.

Note: Once you are signed on, you can move between windows and full-screen mode to access the full range of MAINVIEW for CICS online services.

Confirm Panel

Indicate whether a parameter confirmation panel should be displayed each time you sign on to MAINVIEW for CICS. The default is **YES**, which enables you to change any of the default session parameters when you sign on. If you specify **NO**, you must return to this panel to make parameter changes.

3. Press Enter or the END key to save your parameters.

   The MAINVIEW Parameter Editors menu is redisplayed.

4. Press the END key to return to the MAINVIEW Selection Menu.

Signing On

To sign on and begin a MAINVIEW for CICS session, select Option 4, **CICS**, from the MAINVIEW Selection Menu.

If you specified YES in the Confirm Panel field of your default session parameters, the Parameter Confirmation panel appears. The fields on this panel are the same as those on the MAINVIEW Default Parameters panel (see Figure 8 on page 8). This panel enables you to change any of the values for the current session only. The default parameters will be in effect the next time you sign on.

If you specified NO in the Confirm Panel field of your default session parameters, the Parameter Confirmation panel is bypassed. The screen that appears depends on the display mode you specified for a MAINVIEW for CICS session, either windows or full-screen.

Note: If the BBITSP00 member of your BBPROF data set specifies PRIMAPPL=CICS, the full-screen Primary Option Menu always appears each time you sign on to MAINVIEW for CICS. For more information on this BBPROF parameter, see the *MAINVIEW Common Customization Guide*.

Starting in Windows Mode

When you select MAINVIEW windows mode as your primary display mode, the screen that appears is the initial screen you requested. It might contain

- An Easy Menu, such as EZCFSSI, EZCICS, or EZCFAST. For a complete description of Easy Menus, see “Easy Menus” on page 12.
- Some combination of MAINVIEW for CICS views that have been saved as a custom screen for you or your site. For more information on saving screens with the SAVESCR command, see *Using MAINVIEW*.

- The MAINVIEW for CICS MAIN view, which lists categories of views, such as Monitor, Operate, and Workload.

From the initial screen you can navigate through MAINVIEW for CICS using menus, commands, and hyperlinks.

Starting in Full-Screen Mode

When you select MAINVIEW full-screen mode as your primary display mode, the MAINVIEW for CICS Primary Option Menu is displayed, as shown in Figure 9.

```
BMC SOFTWARE --------------- PRIMARY OPTION MENU ------------ MAINVIEW for CICS
OPTION  ===>                                                 DATE   -- 02/04/27
    Managing CICS Performance:                               TIME   -- 12:55:21
       P  PERFORMANCE   - Examine Performance Indicators     USERID -- USER1
       G  GRAPHICS      - View Predefined Graph Displays     MODE   -- ISPF 4.8
       H  HISTORY       - Review Transaction History
       S  SERVICE       - Service Menu
       V  PLEX MONITORS - Multiple System Performance Monitoring

    Managing CICS Operation:
       1  STATUS        - Display/Modify Status of a CICS System
       2  NETWORK       - Display/Modify Network Components
       3  FILES         - Display/Modify File Status
       4  PROGRAMS      - Display/Modify Programs and Transactions
       5  STORAGE       - Display/Modify Storage Information

    General Services:
       C  CYCLE SETUP   - Service Refresh Cycle Setup
       L  LOG DISPLAY   - Display Logs
       M  MESSAGES      - Display Messages and Codes
       K  KEYS          - Current PF Key Assignments         PF1/13: HELP
       T  TUTORIALS     - Tutorials                          PF3/15: EXIT
                        COPYRIGHT 2000, BMC Software
```

Figure 9. MAINVIEW for CICS Primary Option Menu

From the Primary Option Menu, you can access all of the MAINVIEW for CICS online services in either full-screen or windows mode.

Managing CICS Performance

These services help you monitor CICS performance using performance indicators, resource usage graphs, transaction history displays, timer requests, and application traces. Option V, PLEX MONITORS, on the Primary Option Menu provides access to the SSI views in windows mode.

Managing CICS Operation

These services help you monitor global CICS activity; manage aspects of the CICS environment, the network, files, and programs; and alter virtual storage dynamically.

General Services

These common MAINVIEW product services provide cyclic service refresh for multiple MAINVIEW products, a BBI-SS PAS journal that captures all commands and responses, and online displays of product messages and codes.

Security

You need authorization to access and view the MAINVIEW for CICS online services. In some cases, you may need additional authorization to execute a service action.

Contact your system administrator or security personnel for the authorization you need to use MAINVIEW for CICS.

Understanding Views

MAINVIEW for CICS windows-mode data is displayed in *views*. When a view is requested, a query is executed against the data collected for that view. The result is presented in a MAINVIEW window according to the instructions associated with the view. Each MAINVIEW window presents:

- a control area where commands can be entered
- a line that provides window and view status information
- a display area for view data

The simplest way to move between views is to *hyperlink* to another view. You can do this by positioning the cursor on either a menu option or a highlighted field and pressing Enter.

You can access views by using any of the following methods:

- Hyperlink from a menu option.
- Hyperlink from a highlighted field in another view.
- Type the name of the view on the **COMMAND** line.
- Select the name of a view from a list of views:
  - The MAIN view presents a list of submenus with lists of related views that can be selected.
  - The VIEWS view presents a list of all distributed or site-customized views.
  - The USER view (available from MAIN) presents a list of all views that you have customized.

For more information about views and MAINVIEW windows, see *Using MAINVIEW.*

Types of Views

There are four types of views presented by MAINVIEW for CICS in windows mode:

- Easy Menus
- Tabular views
- Detail views
- Summary views

Each type of view has a characteristic form, which is the format or organization of data presented in a window's display area.

Easy Menus

Easy Menus represent a family of related views that are integrated with hyperlink pathways. Typically, each successive hyperlinked view gives more detail about the performance category you have selected. To navigate from one view to another, simply place the cursor over the highlighted text that represents the desired destination and press Enter.

All MAINVIEW products that operate in windows mode have Easy Menus to make it easier to access the information you need. The names of the MAINVIEW for CICS Easy Menus all begin with EZC.

Quick Menus are a type of Easy menu. The hyperlinks on Quick menus are tailored for a specific view. Quick menus end with Q.

EZCFSSI - SSI Context Menu

EZCFSSI is designed for use when you want an overview of several target CICS regions together in single system image (SSI) mode. This view provides quick access to the MAINVIEW for CICS online services that operate in SSI mode. Figure 10 on page 13 shows the EZCFSSI view.

```
26MAY2002  05:22:01 ------ MAINVIEW WINDOW INTERFACE(V4.1.01)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =EZCFSSI==========(BCVDVPC==*=======)26MAY2002==05:22:01====MVCICS===D====1
                            CICS SSI Menu
      Region Views                                     Other Menus
. Region Analysis        +----------------------+ > CICS SSI Menu
. Region Overview        |   Place cursor on    | > Region Menu
. Region Summary by MVS  |    menu item and     | > Task Menu
. Region Problems        |     press ENTER      | > Monitor Menu
. Region DSA Usage       +----------------------+ > Workload Menu
. Region Settings                                 > Resource Menu
. Initialization Parms        Resource Views      > Operations Menu
. 2 Hour Region Analysis . Transactions
                         . Programs               > History Menu
       Task Views        . Files
. User Tasks             . Terminals
. All Tasks              . Connections
. Lock Analysis          . Sessions
. DSA Utilization        . Transaction Classes
. File Utilization       . TCPIP Services
                                                     Tools & Utilities
                                                  > Access Target Menu
                                                  > Fullscreen Menu
     Monitor Views           Operation Views      > Select View
. All Monitors           . Temp Storage Queues
. By Target              . Cplng. Fac. TS Queues  > Set SSI Context
. By Type                . Auto. Init. Descs.     > Set Target Context
. By Area                . Intv. Ctrl. Elements   > Set Product Context
                         . JAVA Virt. Mach. Pool
                         . CICS Dumpcodes         > CICS Automation (*)
                         . CICS TIOT              > MAINVIEW VistaPoint (*
     Workload Views      . CICS Volumes
. Response Time Overview                           . Return ...
. Response Time Flow
. Objective Review                                  (*) Requires associated
                                                        MAINVIEW product
```

Figure 10. EZCFSSI View

From the EZCFSSI view, you can hyperlink to views that provide information about CICS regions, tasks, and resources from an SSI perspective. For example, if you place the cursor on Terminals and press Enter, the CTERM view appears with information about the status of all the terminals defined to your CICS regions.

EZCICS - Target CICS Region Menu

EZCICS is designed for use when you want to focus on information about one target CICS region. Figure 11 on page 14 shows the EZCICS view.

```
04/23/2001 10:30:48 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =EZCICS============BCVCP51C=*========04/23/2001=10:30:47====MVCICS===D====1
                              CICS Region Menu
                              Timeframe - Interval
    Target CICS region  ->  BCVCP51C
    Target CICS Views       +----------------------+    Tools and Menus
  . User Tasks              |   Place cursor on    |  > Advanced Region Menu
  . Transactions            |    menu item and     |  > Task Menu
  . Programs                |     press Enter      |  . Application Trace
  . Files                   +----------------------+  . Transaction History
  . DSA Overview                                      > Utilities
  . Terminals                 Related Views
  . Connections                                       > MAINVIEW VistaPoint (*)
  . Sessions                . Region Detail           > CICS Automation (*)
                            . Regions on same MVS     > MVS Analysis (*)
  . Monitor Analysis        . 2 Hour Region Analysis
  . Workload Objectives
  . Region Problems                                   . Return ...

                             (*) Requires associated
                                 MAINVIEW Product
```

Figure 11. EZCICS View

From the EZCICS view, you can hyperlink to views that provide detailed information about the performance and resource usage of a specific CICS region. For example, if you place the cursor on User Tasks and press Enter, the TASK view appears with a list of active and suspended user tasks for the target region.

EZCFAST - CICS Fast Menu

EZCFAST is another example of an Easy Menu. This view provides quick access to all the MAINVIEW for CICS online services, both SSI- and target-oriented. Figure 12 on page 15 shows the EZCFAST view.

```
04/23/2001 12:08:32 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =EZCFAST==========(ALL======*=======)04/23/2001=12:08:32====MVCICS===D====1
                              CICS Fast Menu                       CICS3301
   Target CICS views         Timeframe - Interval       Utility
  . Region Overview         +----------------------+  . Transaction History
  . Exception Analysis      |   Place cursor on    |  . Application Trace
  . Workload Objectives     |    menu item and     |  . Workload Admin
  . Workload Flow           |     press Enter      |  . Monitor Management
  > Region Menu             +----------------------+  > Utility Menu

    Task                      Network                   File
  . User Tasks              . Terminals               . File Activity
  . Lock Analysis           . Connections             . LSR Analysis
  . Temp. Stor. Queues      . Sessions                . Volume Activity
  . Transaction Classes     . VTAM Buffer Stats       . Destinations
  > Task Menu               > Network Menu            > File Menu

    Storage                   Database                  Program
  . DSA Overview            . DB2 Overview            . Transaction Activity
  . Region Storage          . DBCTL Overview          . Program Activity
  . Control Block Menu      . Local DL/I Overview     . DFHRPL data sets
  > Storage Menu            > Database Menu           > Program Menu
                                                      . Return...
```

Figure 12. EZCFAST View

Some of the options on EZCFAST are shown with a greater than sign (>) in front of them instead of a period (.), indicating that the hyperlink goes to another menu or input panel rather than a view of data. For example, EZCFAST offers direct access to some of the most frequently used storage views (such as DSA Overview), plus access to the complete Storage Menu (EZCMSTOR). These submenus appear as pop-up menus that overlay the center of the primary Easy Menu.

Figure 13 on page 16 shows the EZCFAST view with the EZCMSTOR pop-up menu displayed.

```
04/23/2001 12:09:02 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                  SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =EZCFAST==EZCMSTOR(ALL======*=======)04/23/2001=12:09:02====MVCICS===D====1
                              CICS Storage Menu                      CICS3301
   Target CICS views                                    Utility
  . Region Overview         + Storage Menu ========+  . Transaction History
  . Exception Analysis      . DSA Overview         .  . Application Trace
  . Workload Objectives     . DSA Usage (SCAs)     .  . Workload Admin
  . Workload Flow           . Region Storage       .  . Monitor Management
  > Region Menu             . Domain Headers       .  > Utility Menu
                            . Control Block Menu   .
    Task                    . Graph Subpool Usage  .    File
  . Current Tasks           +======================+  . File Activity
  . Enqueue Analysis                                  . LSR Analysis
  . TSUT Queues                                       . Volume Activity
  . Transaction Classes                               . Destinations
  > Task Menu                                         > File Menu

    Storage                                             Program
  . DSA Overview                                      . Transaction Activity
  . Region Storage                                    . Program Activity
  . Control Block Menu                                . DFHRPL data sets
  > Storage Menu                                      > Program Menu
                                                      . Return...
```

Figure 13. EZCFAST View with EZCMSTOR Pop-Up Menu

Tabular Views

Tabular views present rows and columns of data. Each field in a given row addresses the same resource. Figure 14 shows the CFILE view, which is an example of a tabular view.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFILE============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====5
CMD File     Target   Open         Enable     Acc   LSR  Total Data Set Name
--- Name              Status       Status    Meth   ID    I/O
    CMRFILA  CICSPRD2 CLOSED       N/A       REMOTE N/A      0 N/A
    CMRFILR  CICSPRD2 CLOSED       ENABLED   VSAM     3      0 CICS330.CICS330
    CMRTVSAM CICSPRD2 OPEN         ENABLED   VSAM     1      0 N/A
    CMRVSDL  CICSPRD2 CLOSED       ENABLED   VSAM     1      0 CICS330.CICS330
    DFHCSD   CICSPRD2 CLOSED       DISABLED  VSAM     1      0 PRD2.CICS510.DE
```

Figure 14. Sample Tabular View--CFILE

Each row of the CFILE view presents information about a file that is defined to CICS. Each column presents information about one aspect of a file's status or usage.

Most tabular views offer hyperlink fields that provide quick access to detailed information or information about a related resource. The following standard hyperlinks are defined for most tabular views:

Detail Menu Hyperlink

The first field, which is called the key field, provides a hyperlink to a detail menu for the selected resource. In the CFILE view, for example, the File Name field is a hyperlink to the CFILEQ detail menu.

Target Hyperlink

The Target field provides a hyperlink to the EZCREGN view for the selected CICS region.

Detail View Hyperlink

The field to the right of the Target field provides a hyperlink to the primary detail view for the resource, if there is one. In the CFILE view, the Open Status field is a hyperlink to the CFILED detail view.

Detail Views

Detail views provide detailed information about a particular resource. Figure 15 shows the CFILED view, which is an example of a detail view. CFILED shows detailed information about a CICS file.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFILE====CFILED==(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target..............     CICSPRD2
    File Name...........     CMRTVSAM

    Enable Status......      ENABLED Remote Name..............       N/A
    Open Status........         OPEN Remote System...........       N/A

    Access Method......         VSAM Open Time................  07:59:19
    RLS Access.........           NO

    Data Set Type......         KSDS Table Type...............  NOTTABLE
    Data Set Disposition        SHARE Table Name..............       N/A
                                      Table Pool...............       N/A
    Record Format......     VARBLOCK Update Model.............       N/A
    Record Length......          200 CF Load Type............       N/A
    Key Position.......            0 Maximum Table Records....         0
    Key Length.........            4
                                      BDAM Specifics..........
    Browse Valid.......          YES   Exclusive Control.....        N/A
    Read Valid.........          YES   Relative Addressing...        N/A
    Update Valid.......          YES   Block Key Length......        N/A
    Add Valid..........          YES   Block Size............        N/A
    Delete Valid.......          YES
                                      VSAM Object Type........       BASE
    Read Integrity.....  UNCOMMITTED
    Recovery...........           NO
    Forward Recovery....          NO
                                      Links to other forms....
    LSR Pool ID........            1 .I/O Statistics.........
    Journal ID.........            0 .VSAM Cluster Statistics
```

Figure 15. Sample Detail View--CFILED

There is another type of detail view, called a detail menu. Detail menus provide access to a variety of information related to a specific resource.

Figure 16 shows the CFILEQ detail menu. From this menu, you can hyperlink to a CFILE detail view or to a view such as TASKFIL, which displays the tasks associated with a given file.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CFILE====CFILEQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
           CICS File Detail Menu

    CICS Region ------------------------->         CICSPRD1
    CICS File Name---------------------->         CMRTVSAM

             File Detail Forms                                   Other Menus
  . File Attributes                                            > Target Menu
  . File I/O Statistics                                        > Fullscreen Menu
  . File VSAM Cluster Statistics




               Related Views
  . Target Region Analysis
  . Current Tasks Using This File

  . LSR Pool Statistics                                      1
  . Data Table Statistics                                  N/A

  . Journal Analysis
  . TIOT Entries
  . Volume Activity
```

Figure 16. Sample Detail Menu--CFILEQ

Summary Views

Summary views compress related data into a single row. The data from a tabular view is summarized appropriately according to the type of data presented. This type of view is useful for reviewing data from multiple CICS regions. Figure 17 shows the CFILEZ view. This view shows summarized information about the files defined to CICS.

```
25FEB2002  13:18:19 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CFILE====CFILEZ==(ALL======*=======)25FEB2002==13:17:56====MVCICS===D===86
CMD   File   Count  Target   Open        Enable    File   LSR   Total   Data Se
---   Name                   Status      Status    Type   Pool   I/O
    DFHCSD       5 BCVC**** CLOSED       ********* VSAM      1        0 BCVM.CI
    DFHDBFK      5 BCVC**** CLOSED       ENABLED   VSAM               0 N/A
    DFHLRQ       5 BCVC**** OPEN         ENABLED   VSAM      1        0 BCVM.CI
    DYNALLOC     3 BCVC**** CLOSED       ENABLED   VSAM      1        0 BCVM.CI
    FILEA        5 BCVC**** CLOSED       ENABLED   VSAM      1        0 CICS***
    FILEB        5 BCVC**** CLOSED       ENABLED   VSAM      1        0 CICS410
    JOERMT53     5 BCVC**** N/A          N/A       REMOTE N/A         0 N/A
    JOEVSAM      5 BCVC**** CLOSED       ENABLED   VSAM      1        0 BCVM.CI
    PCFDT001     5 BCVC**** CLOSED       ENABLED   VSAM      1        0 N/A
    THMF001      5 BCVC**** CLOSED       ENABLED   VSAM      1        0 CICS330
    THMF002      5 BCVC**** CLOSED       ENABLED   VSAM      1        0 CICS330
```

Figure 17. Sample Summary View--CFILEZ

Each row of the CFILEZ view represents one or more files with the same name. The Count field shows how many files are represented by each line of data. You can hyperlink from the Count field to the CFILE tabular view to expand a line of summary data

Chapter 2. Monitor Views

This chapter describes the MAINVIEW for CICS monitor views. These views provide

- Information about active data collection monitors
- Displays of the data collected by those monitors

Table 1 on page 22 gives a brief description of each monitor view and shows you where to find more information.

Table 1. MAINVIEW for CICS Monitor Views

View Name	Description
CMAREAZ	This interval view displays a performance summary, by monitor type, of the monitors collecting data during the current interval. See page 23.
CMON	This interval view displays a performance summary, by CICS region, of the monitors collecting data during the current interval. See page 24.
CMONC	This cluster view displays a performance summary, by CICS region, of the monitors collecting data over the real-time, interval, and session periods. See page 25.
CMONR	This real-time view displays a performance summary, by CICS region, of the monitors collecting data during the current real-time period. See page 24.
CMONS	This session view displays a performance summary, by CICS region, of the monitors collecting data during the current session. See page 24.
CSERV	This interval view displays a list of the monitors collecting data during the current interval. See page 26.
CSERVC	This cluster view displays a list of the monitors collecting data over the real-time, interval, and session periods. See page 27.
CSERVR	This real-time view displays a list of the monitors collecting data during the current real-time period. See page 27.
CSERVS	This session view displays a list of the monitors collecting data during the current session. See page 27.
CSOVER	This interval view displays a performance summary of the monitors collecting data during the current interval. See page 29.
CSOVERC	This cluster view displays a performance summary of the monitors collecting data over the real-time, interval, and session periods. See page 30.
CSOVERR	This real-time view displays a performance summary of the monitors collecting data during the current real-time period. See page 30.
CSOVERS	This session view displays a performance summary of the monitors collecting data during the current session. See page 30.
C*monitor_name*	These monitor plot views present a graph of performance monitored over the previous 10 data collection periods. Every MAINVIEW for CICS monitor has a corresponding plot view. For example, C@RESP is the plot view for the @RESP monitor. See page 31.

CMAREAZ View

To display a performance summary, by monitor type, of the monitors collecting data, issue the command

CMAREAZ

The CMAREAZ view appears, as shown in Figure 18.

```
18MAR2001  12:11:43 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =CMAREAZ==========(ALL======*=======)18MAR2001==12:11:43====MVCICS===D====5
CMD                      Number  Number            Average Maximum Number
--- Target   Area     Monitors in Warn 0.......10 Warning Warning Active
    CICS3301 TASK            1       5 *****         34.0   134.0      1
    CICS3301 WKLD            5       3 ***           10.8   121.5      5
    CICS4101 TASK            1       0                5.2     5.2      1
    CICS4101 WKLD            5       0                5.2    10.4      5
    ICICS121 GENL            5       0                                  5
```

Figure 18. CMAREAZ View

Usage Notes

CMAREAZ summarizes performance by the number of monitors that have exceeded their warning threshold and the calculated average percent of warning for these monitors.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Area/ Number Monitors	CSERV view for the selected monitor type and target CICS region.
Number in Warn	CSERV view for the selected monitor type and target CICS region. The value in the Number in Warn field must be greater than 0. If there are no monitors in warning state, there will be no data to display.

CMON View

To display a performance summary, by CICS region, of the monitors collecting data during the current interval, issue the command

CMON [*target*]

where

target Is the specific or generic name of a target CICS region.

The CMON view appears, as shown in Figure 19.

```
18MAR2001  11:08:36 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CMON=============(ALL======*=======)18MAR2001==11:08:34====MVCICS===D===10
CMD Target   Actv     Number in Warn        Avg % Warning  Maximum
--- -------- Mntrs    0.....10....20        0.....50...100 % Warning
    CICSPRD1    19  6 **               79.8 ***********        195.1
    CICSPRD3    17  4 *                66.1 **********         143.0
    CICSENG3    13  2 *                59.7 *********          104.4
    CICSMKTG    13  0                  24.0 ****                87.4
    CICSENG2    13  0                  21.9 ****                78.4
    CICSFINC    13  0                  17.4 ***                 73.2
    QUERY1      13  0                  12.4 **                  71.5
    ICICS121    13  0                   9.9 **                  68.3
    OLCS212     13  0                   7.3 **                  55.8
    OLCS330     13  0                   5.3 *                   36.4
```

Figure 19. CMON View

Usage Notes

CMON summarizes performance by the number of monitors that have exceeded their warning threshold and the calculated average percent of warning for these monitors.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Target/ Actv Mntrs	CSERV view for the selected target CICS region.

Related Views

The following views are similar to the CMON view. The information they provide is for different data collection periods.

View	Description
CMONR	A performance summary, by CICS region, of monitors collecting data during the current real-time period.
CMONS	A performance summary, by CICS region, of monitors collecting data during the current session.

CMONC View

To display a performance summary, by CICS region, of the monitors collecting data over the real-time, interval, and session periods, issue the command

CMONC [*target*]

where

target Is the specific or generic name of a target CICS region.

The CMONC view appears, as shown in Figure 20.

```
18MAR2001  11:22:08 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CMONC============(ALL======*=======)18MAR2001==11:22:06====MVCICS===D===10
CMD Target   Actv     Realtime Warn     Interval Warn     Session Warn
--- -------- Mntrs    0.....10....20    0.....10....20    0.....10....20
    CICSPRD1    19 34 ****           38  ****          22  ***
    CICSPRD3    17 19 ***            20  ***           18  ***
    CICSPRD4    13 12 **             10  **            19  ***
```

Figure 20. CMONC View

Usage Notes

- CMONC reports each CICS region's performance over the real-time, interval, and session data collection periods according to the summarized average percent of warning calculated for all monitors.
- Average percentage of warning measures how close the reported data is to the warning threshold set for the monitor that collects the data.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Target/ Actv Mntrs	CSERVC view for the selected target CICS region.
Realtime Warn	CSERVR view for the selected target CICS region.
Interval Warn	CSERV view for the selected target CICS region.
Session Warn	CSERVS view for the selected target CICS region.

CSERV View

To display a list of the monitors collecting data during the current interval, issue the command

CSERV [*monitor_name* [*parameter* [*area*]]]

where

monitor_name Is the specific or generic name of a monitor.

parameter Is the specific or generic name of a monitor parameter.

area Identifies the type of resource being monitored.

The CSERV view appears, as shown in Figure 21.

```
25FEB2002  13:55:09 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CSERV============(BCVDVPC==*=======)25FEB2002==13:55:08====MVCICS===D===33
CMD Serv  Intvl Parm             % Warning    Curr     Warn     Area Target
--- ----- Time- --------       0.....50...100 Value--- Value--- ---- --------
    MXTC  13:55 CREGION   10.0                  10.00   100.00 TASK BCVCD530
    MXTC  13:55 CREGION   10.0                  10.00   100.00 TASK BCVCD610
    @RSTM 13:55 TRANWKLD   0.4                  0.00     1.00 WKLD BCVCD530
    @RSTM 13:55 ACCTREV    0.4                  0.00     1.00 WKLD BCVCD530
    @RSTM 13:55 TRANWKLD   0.4                  0.00     1.00 WKLD BCVCD610
    @RSTM 13:55 ACCTREV    0.4                  0.00     1.00 WKLD BCVCD610
    @RESP 13:55 CREGION    0.2                  0.00     2.00 WKLD BCVCD530
    @RESP 13:55 CREGION    0.2                  0.00     2.00 WKLD BCVCD610
```

Figure 21. CSERV View

Usage Notes

- Monitors are ranked according to 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.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Serv	C*monitor_name* view for the selected monitor (such as, C@RESP for the @RESP monitor).

Related Views

The following views are similar to the CSERV view. The information they provide is for different data collection periods.

View	Description
CSERVR	A list of monitors collecting data during the current real-time period.
CSERVS	A list of monitors collecting data during the current session.

CSERVC View

To display a list of the monitors collecting data over the real-time, interval, and session periods, issue the command

CSERVC [*monitor_name* [*parameter* [*area*]]]

where

monitor_name Is the specific or generic name of a monitor.

parameter Is the specific or generic name of a monitor parameter.

area Identifies the type of resource being monitored.

The CSERVC view appears, as shown in Figure 22.

```
25FEB2002  13:58:01 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CSERVC===========(BCVDVPC==*=======)25FEB2002==13:58:01====MVCICS===D===33
CMD Serv  Intvl Parm         Realtime%Wrn     Interval%Wrn     Session%Wrn  Tar
--- ----- Time- --------     0....50..100     0....50..100     0....50..100 ---
    @RESP 13:58 CREGION    0                0                0              BCV
    @RESP 13:58 CREGION    1                0                0              BCV
    @RSTM 13:58 ACCTREV    1                0                1              BCV
    @RSTM 13:58 TRANWKLD   0                0                1              BCV
    @RSTM 13:58 ACCTREV    0                0                1              BCV
    @RSTM 13:58 TRANWKLD   1                0                1              BCV
    MXTC  13:58 CREGION   10               10               10              BCV
    MXTC  13:58 CREGION   10               10               10              BCV
```

Figure 22. CSERVC View

Usage Notes

- Monitors are ranked according to their reported average percentage of warning threshold over the real-time, interval, and session reporting periods.
- Average percentage of warning measures how close the reported data is to the warning threshold set for the monitor that collects the data.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Serv	C*monitor_name* view for the selected monitor (such as, C@RESP for the @RESP monitor).

CSOVER View

To display a performance summary of monitors collecting data during the current interval, issue the command

CSOVER [*monitor_name* [*parameter* [*area*]]]

where

monitor_name Is the specific or generic name of a monitor.

parameter Is the specific or generic name of a monitor parameter.

area Identifies the type of resource being monitored.

The CSOVER view appears, as shown in Figure 23.

```
18MAR2001  12:15:33 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CSOVER===========(ALL======*=======)18MAR2001==12:15:31====MVCICS===D===21
CMD Serv  Parm           Avg % Warning  Avg      Avg      Area Count
--- ----- --------       0.....50...100 Value--  Warning- ---- -----
    @RSTM TEST1     24.4 ***                0.24     1.00 WKLD     1
    @RSTM ALLWORK   24.4 ***                0.24     1.00 WKLD     1
    @RESP CREGION    6.1 *                  0.24     2.00 WKLD     2
    @PRB2                                                 GENL    10
    @PRB4                                                 GENL    10
    @PICT                                                 TASK    10
    AMXT                                                  TASK    10
    MXTC                                                  TASK    10
    MXTC  CREGION                                   100.00 TASK     2
    @RSTM PRDTCTND                                    0.10 WKLD     1
```

Figure 23. CSOVER View

Usage Notes

- Data from similar monitors are combined and then ranked according to 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.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Serv	CSERV view for the selected monitor.

Related Views

The following views are similar to the CSOVER view. The information they provide is for different data collection periods.

View	Description
CSOVERR	A performance summary of monitors collecting data during the current real-time period.
CSOVERS	A performance summary of monitors collecting data during the current session.

CSOVERC View

To display a performance summary of the monitors collecting data over the real-time, interval, and session periods, issue the command

CSOVERC [*monitor_name* [*parameter*]]

where

monitor_name Is the specific or generic name of a monitor.

parameter Is the specific or generic name of a monitor parameter.

The CSOVERC view appears, as shown in Figure 24.

```
18MAR2001  12:17:23 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CSOVERC==========(ALL======*=======)18MAR2001==12:17:20====MVCICS===D===21
CMD Serv  Parm           Realtm %Warn       Intvl %Warn        Sessn %Warn  Cnt
--- ----- --------       0....50..100       0....50..100       0....50..100 ---
    @RESP CREGION   0.07               2.32              200.4 ***********+   2
    @RESP                                                                    10
    @RSTM TEST1    12.85 **           10.72 *            12.68 **             1
    @RSTM ALLWORK   8.67 *            15.00 **           11.60 *              1
    @RSTM PRDTCTND                                       1050. ***********+   1
    @RSTM PRDTCTN2                                       22.43 ***            1
    @RSTM MYWKLOAD                                       78.99 *********      1
    @SVCT                                                                    10
    @TSKB TEST01                                                              1
```

Figure 24. CSOVERC View

Usage Notes

- Data from similar monitors is combined and then ranked according to the average percentage of warning threshold calculated for the real-time, interval, and session reporting periods.
- Average percentage of warning measures how close the reported data is to the warning threshold set for the monitor that collects the data.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Serv	CSERV view for the selected monitor.
Realtm %Warn	CSERVR view for the selected monitor.
Intvl %Warn	CSERV view for the selected monitor.
Sessn %Warn	CSERVS view for the selected monitor.

Monitor Plot Views

A monitor plot view is a 10-line graph showing performance monitored over the previous 10 data collection periods. Every MAINVIEW for CICS monitor has a corresponding plot view.

To display a monitor plot view, either

- Hyperlink from the **Serv** field of the CSERV or CSERVC view
- Issue the command

  C*monitor_name parameter monitor_name*

  where

  monitor_name Is the name of a monitor.

  parameter Is the name of a monitor parameter.

For example, if you specify C@RESP WORK2 @RESP, the C@RESP monitor plot view appears, as shown in Figure 25.

```
18MAR2001  12:28:37 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =C@RESP============CICSPRD2=*========18MAR2001==12:28:36====MVCICS===D====1
   >>GRAPH   |.....|......|  Response  Events Parm.....  WORK2
   09:14:00  *********           0.24      0  Appl.....  PAYROLL
   09:13:00  **********          0.28      0  Warning..     1.00
   09:12:00  *******             0.20      0  Max/Min..  Maximum
   09:11:00  ************        0.30      0   Value...     0.00
   09:10:00  ***********         0.29      0   Time.... 00:00:00
   09:09:00  ******              0.19      0  Graph Max     0.00
   09:08:00  ******              0.19      0  Target... CICSPRD2
   09:07:00  ******              0.19      0  Descript. AVG RESPONSE TIME
   09:06:00  *******             0.22      0
   09:05:00  *******             0.22      0  Samples..        0
             |.....|......|  Response  Events Period... 00:10:00
   Total     *********           0.29      0  Samp Int. 00:01:00
   Prev Pd   *****               0.18      0  Start.... 09:14:00
   Curr Pd   **********          0.23      0  Elapsed.. 00:00:00
```

Figure 25. C@RESP Monitor Plot View

Usage Notes

- C@RESP plots the average response time for transactions that occur in a CICS region during a sampling interval. The fields in the left column show the time elapsed for transactions in the WORK2 workload. Each line represents the average response time of transactions that occurred in each one-minute data collection interval.
- Table 2 on page 32 lists the plot views for the workload monitors. Table 3 on page 32 lists the views for the resource monitors. Each table includes a brief description of the type of data shown in the views.

Table 2. Workload Monitor Plot Views

Plot name	Description
C@ELAP	Average elapsed time
C@INPQ	Average input queue time
C@MONI	Current service level exceptions
C@PICT	CICS program interrupts
C@PRB1	CICS system problems
C@PRB2	CICS task problems
C@PRB3	CICS resource problems
C@PRB4	CICS global problems
C@RESP	Average response time
C@SVCT	CICS storage violations
C#PROC	Transactions processed

Table 3. Resource Monitor Plot Views

Plot name	Description
C@CMXT	Class maximum task percentage
C@DB2N	DB2 Not Attached
C@GLBD	CICS TD DFHINTRA usage
C@GLBE	CICS extended private storage usage
C@GLBM	CICS main temporary storage usage
C@GLBP	CICS private storage usage
C@GLBT	CPU usage by CICS tasks
C@GLBU	CPU usage by user tasks
C@GLBX	Auxiliary temporary buffer storage

Table 3. Resource Monitor Plot Views (continued)

Plot name	Description
C@IMSN	IMS Not Attached
C@TDBU	Transient data buffer usage
C@TDBW	Transient data buffer waits
C@TDSU	Transient data string usage
C@TDSW	Transient data string waits
C@TDQL	Records in queue for destination ID
C@TDQT	Records in queue exceeding trigger
C@TSBU	Temporary storage buffer usage
C@TSBW	Temporary storage buffer waits
C@TSKA	Task storage usage above 16MB line
C@TSKB	Task storage usage below 16MB line
C@TSKC	Task CPU usage
C@TSKD	Task database usage
C@TSKF	Task file usage
C@TSKS	Total task storage usage
C@TSSU	Temporary storage string usage
C@TSSW	Temporary storage string waits
C#DSAV	DSA pages available
C#DSIZ	DSA size
C#DSTO	DSA available
C#ESAV	EDSA pages available
C#ESIZ	EDSA size
C#ESTO	EDSA available
CAMXT	Maximum active task percentage
CCSUT	CSA storage in use percentage
CDSUT	DSA storage in use percentage
CECSUT	ECSA storage in use percentage
CENQC	Enqueue conflicts
CENQW	Tasks waiting on enqueue
CGBLO	Free OSCOR below 16MB line
CGBLQ	Free LSQA below 16MB line

Table 3. Resource Monitor Plot Views (continued)

Plot name	Description
CIAID	Automatic initiate descriptors
CIDCT	CICS storage dumps per interval
CIICE	Interval control elements
CJRNR	Journals waiting WTOR reply
CLSRL	LSR LOOKASIDE percentage
CLSRS	LSR strings in use percentage
CLSRW	LSR string waits
CMXTC	Maximum task percentage
CPGMS	Program storage size
CSDCT	CICS storage dumps
CTSTE	Temporary storage size

Chapter 3. Workloads and Workload Views

This chapter describes how to create and maintain MAINVIEW for CICS workload definitions. It includes an overview of the process and descriptions of the MAINVIEW for CICS workload views.

Several of the MAINVIEW for CICS Plex views display summarized performance data collected from the CICS regions that belong to a workload. You build workload definitions that describe how you want MAINVIEW for CICS to monitor the CICS regions at your site.

Defining Workloads

A MAINVIEW for CICS workload definition is created with an ISPF dialog box. You fill in fields of the dialog box with the values you want for your workload definition.

As part of the definition, you assign a composite name to which a workload belongs. If your site has MAINVIEW VistaPoint installed, you can combine the performance from similarly named composite workloads into a common application. MAINVIEW VistaPoint presents application views that allow you to see the combined performance of workloads sharing common tasks.

The following steps outline the general procedure to create an MAINVIEW for CICS workload.

1. Plan the workload definition.
2. Move to the product workload definition dialog box.
3. Obtain an edit lock on the common BBPARM data set.
4. Complete the workload definition dialog box.
5. Save the workload definition.
6. Install the workload.

In the following sections, each of these steps is explained in more detail.

Planning Workload Definitions

Before you define workloads, BMC Software recommends you spend some time establishing the conventions you will have at your site for using the single system image (SSI) views in MAINVIEW for CICS. This section describes the considerations you should make when you define workloads.

Place Workload Definitions in Your Common BBPARM Data Set

MAINVIEW for CICS stores its workload definitions in separate members of the common BBPARM data set created at your site. MAINVIEW for CICS workload definitions are saved in member BBKTWK00.

If possible, BMC Software recommends workload definition members be placed in a common BBPARM library accessible to each product address space (PAS). The number of workload definitions can be kept to a minimum if they are placed in a shared parameter library. Otherwise, duplicate workload definitions must be created for each linked PAS to ensure MAINVIEW for CICS workloads report performance from all targets. Also, maintenance is

easier if updates can be made to a single workload definition without the requirement of making simultaneous changes to similar definitions in different parameter libraries.

Establish Consistent Naming Conventions

BMC Software recommends a consistent naming convention for MAINVIEW for CICS workloads. This is particularly important if your site cannot place workload definitions in the common BBPARM data set defined at your site. In this case, when you update your definitions you must be able to easily identify similar workloads in different BBPARM data sets.

The data shown in the MAINVIEW for CICS Plex views can be sorted and filtered by workload name. Consistent names make it easier to sort and filter views so you can find the data you want to display.

Workload names should be a shorthand notation that represents the work performed by the target. For example, CICSPAY1 identifies CICS payroll transactions running on region 1. A workload name can be a maximum of eight characters.

Composite names should indicate a common functional characteristic of the workloads that are part of a MAINVIEW VistaPoint application. For example, a PROD suffix on an application name indicates the workloads are monitoring production regions. Likewise, an application named FINANCE indicates a workload's targets are completing financial transactions. Application names can be a maximum of eight characters.

Identify Critical Workload Monitoring Periods

Monitoring occurs over a daily cycle. During the course of a day, there are periods when transaction performance is not at risk because of the relatively light load on the system. During those periods, you may choose not to monitor your MAINVIEW for CICS workloads.

Other daily periods are critical. The demands on system resources lead to contention and, invariably, transaction delays. BMC Software recommends monitoring all your workloads during the daily periods when adequate transaction performance is essential at your site.

Workloads belonging to the same composite should have identical monitoring periods. Because several Plex views show combined workload performance, different monitoring periods may result in data collection becoming inactive for some regions. When this occurs, you must be aware of the fact that different monitoring periods reflect differences in the composition of the target workload.

Completing the Workload Definition

You are in browse mode when you initially display the CWKLDDEF view. You can look at a listing of CICS workload definitions but you cannot alter them.

To place an edit lock on the common BBPARM workload member containing the current workload definitions, type **EDIT** on the **COMMAND** line and press Enter. You can now enter primary or line commands to add, delete, change, or update workload definitions.

Table 4 shows both the line and the primary commands available after an edit lock is obtained on workload definitions.

Table 4. Workload Definition Commands

Command	Description
Primary Commands	
ADD	Creates a new workload definition.
CANcel	Cancels any changes made to the definition during an edit session by refreshing the workload definition with the current version in storage.
SAVE	Saves any changes made to the workload definition and maintains the current edit session.
Line Commands	
ADD	Creates a new workload definition by using the selected definition as a template.
CHAnge	Updates an existing workload definition.
DELete	Deletes a workload definition.
INStall	Updates the runtime version of the workload definition in the CAS to start transaction monitoring.
UNDelete	Cancels the DELete command and retains the workload definition if issued before the SAVE command.

Entering the ADD primary or line command displays the Workload Definition dialog box shown in Figure 26 on page 38. Invoking ADD from the command line gives you a default dialog box to define a new workload.

Use the ADD line command instead if you prefer to use an existing workload definition as a model to create a new definition. Simply type **ADD** in the line command field next to the workload definition that you want to use as your model and press Enter.

```
 CMD Workload Applcatn Target   System   Description            Resp %Tr Start
 --- Name---- Name---- -------- -------- ------------            ---- --- Time-
 add ACCTING  CICSP*   *        *        All Accounting          0.5  80 07:00
```

Make changes to the fields of the Workload Definition dialog box and save the definition with a new workload name.

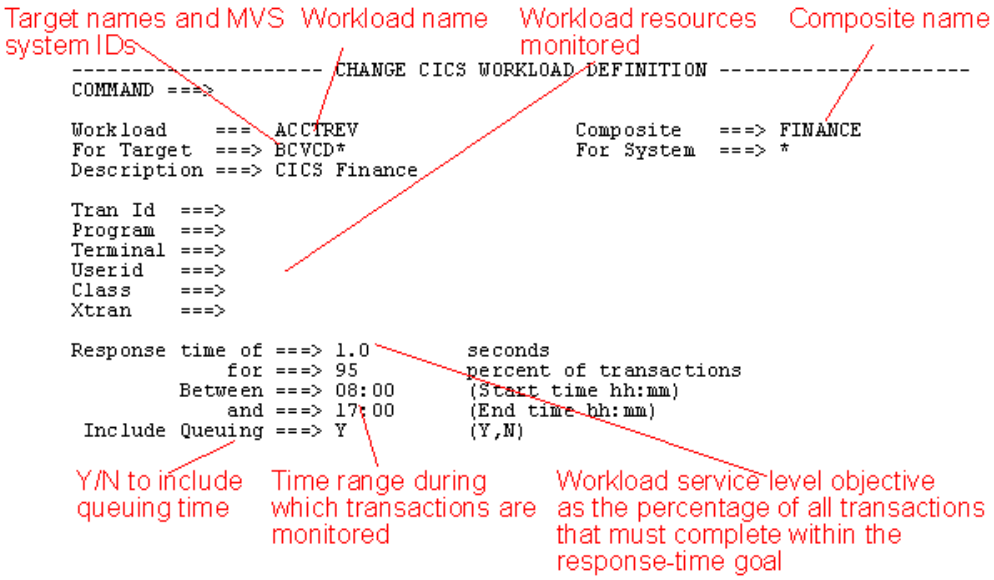

Figure 26. Example of the MAINVIEW for CICS Workload Definition Dialog Box

The dialog fields you complete to define a workload are shown in Figure 26. The fields are described separately in the following sections.

Workload and Composite Names

Enter the selected names for the workload and composite. Names can be up to eight characters. Wildcard characters (*, ?, +) are permitted.

The composite workload name is used by MAINVIEW VistaPoint to combine workloads together into an application. Related CICS, MVS, DB2, and IMS workloads must have the same composite name if you want to monitor their combined transaction performance in a MAINVIEW VistaPoint application.

Filtering and sorting data are easier from views in MAINVIEW products if you use a consistent prefix for your workload names. Again, BMC Software recommends you establish a common naming convention for your site's workloads. Refer to "Establish Consistent Naming Conventions" on page 36 for naming recommendations.

Target and System ID

Enter the complete target name and system ID if you want to restrict the workload to a single target and MVS image.

Use wildcard characters if you want to expand the definition to include multiple targets and MVS images.

Resources

You enter the type of resources to be monitored (or excluded) by the workload. Multiple entries for each resource can be specified with either a comma or space between them.

Tran ID 4-byte transaction ID. Can consist of upper- and lower-case characters.

Program 8-byte name of the load module invoked by the transaction

Terminal 4-character terminal name that initiates a transaction

User ID 8-character name of the user signed on to the terminal that initiates a transaction

Class 2-digit transaction class (01-10) for CICS 3.4 and below

Class zero (00) selects all transactions not belonging in classes 01-10.

Xtran 4-byte transaction ID of transactions to be excluded from the workload.

Wildcard characters (*, ?, +) are supported.

Service Level Objective

A service level objective specifies the minimum acceptable performance of a workload. You set a service level objective based upon your assessment of the minimum percentage of all transactions that must complete within a specified response time for the tasks that occur in a workload.

Figure 27 shows an example of a service level objective. Transaction response times are distributed over time with the cumulative percentage of completed transactions shown beneath the horizontal axis.

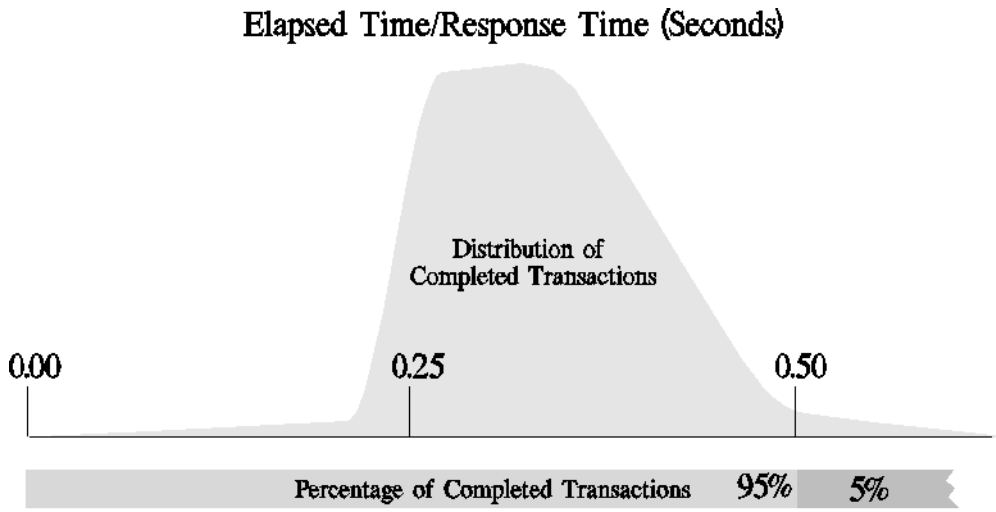

Figure 27. Example of a Service Level Objective

Figure 27 on page 39 shows that 95% of transactions must complete within 0.5 seconds for the workload to meet its service level objective. In this example, exactly 95% of transactions are completed within the 0.5 second response time goal. The workload is performing at 100% of objective.

If more than 95% of transactions complete within the 0.5 second response time goal, the workload is exceeding its service level objective and is operating beyond 100%. Conversely, if less than 95% of transactions complete within 0.5 second, the workload is operating at less than 100% of objective.

Workloads that are members of the same composite can have different service level objectives. MAINVIEW VistaPoint, and the products that work with it, normalize reported values to assure consistency.

Monitoring Time Range

A workload's transaction response time monitoring occurs within a daily period. You set the beginning and ending times in hours and minutes (hh:mm) that you want a workload to be monitored.

The hourly range is expressed as a 24-hour clock (00-24). Minutes range from 00-60.

Start and stop times can cross midnight. For example, you can set both the start and stop times to 08:00. Workload monitoring occurs over a 24-hour period between 08:00 and 08:00 of the next day. Every morning at 08:00 hours, workload monitoring resets and begins again.

Response Time Queuing

You can include or exclude queuing time in CICS transactions. MAINVIEW for CICS uses response time (@RSTM) or elapsed time (@ELTM) monitors, depending upon whether you type Yes or No in the Include Queuing field.

Figure 28 shows the difference between response time and elapsed time transaction monitoring.

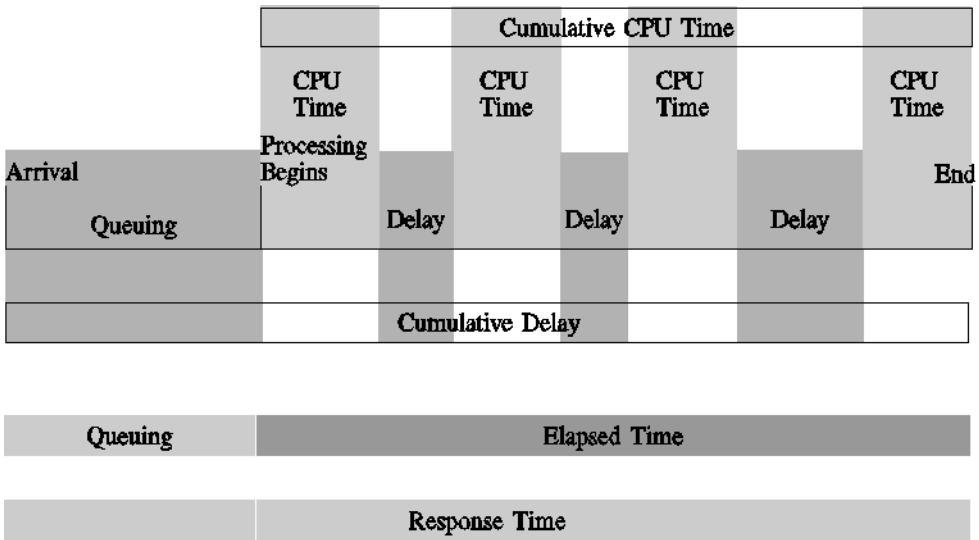

Figure 28. Difference Between Response Time and Elapsed Time

With CICS, response time includes queuing and the processing period of a transaction. Elapsed time includes only the processing period.

MAINVIEW for CICS considers total transaction time to be the sum of CPU time and delay. CPU time is the sum of the relatively short intervals in the processing period when the transaction undergoes CPU processing. Delay is the sum of queuing and the processing intervals **not** spent in CPU processing.

Saving and Installing the Workload Definition

After you have completed the workload definition dialog box, you must save it and install it before it becomes active. Typing **SAVE** or pressing the END key from the CWKLDDEF view saves the workload definition you modified or added. The SAVE command retains the edit lock on the workload definition member in the common BBPARM data set to make further changes.

After a workload definition is saved, it is still not active. You must install it. Entering the INStall line command next to the listed workload definition starts monitoring if you are within the defined monitoring time range. The Sta field on CWKLDDEF changes from Ina to Act to indicate the workload is now active.

```
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT         )====MVCICS=======10
CMD Workload Composite Target   System   Description              Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------             --- ---- ---
ins ACCTPAY  FINANCE   CICSP*   *        Accounts payable         Act 0.30  90
```

If you updated an existing workload definition with the CHAnge line command, the INStall command deactivates the current definition and then starts monitoring with parameters set in the updated version of the workload.

Maintaining Workload Definitions

Occasionally, you may need to make changes to your workload definitions or delete them if they are no longer needed. This section shows how to update and delete current definitions that appear in the CWKLDDEF view.

Updating Workload Definitions

When you make changes to regions that are monitored by MAINVIEW for CICS, you should make corresponding changes to their workload definitions. The accuracy of MAINVIEW for CICS is dependent upon how closely its definitions reflect your site's actual environment.

Changing a workload definition is a process of modifying values in the workload definition dialog box and then saving the results. This section explains how to modify existing workload definitions.

Figure 29 shows that an edit lock has been set against the CICS workload definitions listed on the CWKLDDEF view.

```
 08MAR2001  13:09:08 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                 SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT          )====MVCICS===D===10
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
    ACCTPAY  FINANCE   CICSP*   *        Accounts payable          Act 0.30  90
cha ACCTRECV FINANCE   CICSP*   *        Accounts receivable       Act 0.30  90
    ACCTRET  FINANCE   CICSP*   *        Accounts return           Act 1.00  95
    DIRECT   PAYROLL   CICSP*   *        Direct employee trans.    Act 1.00  95
    BILLING  FINANCE   CICSP*   *        Debit billing             Act 0.10 100
    CICSALL  BBCICS    *        *        CICS All transactions     Act 0.50  85
    QUERY1   QUERY     CICSQ01  *        CICS queries CICSQ01      Act 0.25  95
    CICSP01  CICSP01   CICSP01  *        CICSP01 only transactions Act 1.00 100
    CICSTEST TEST0131  CICS*    *        CICS testing              Act 0.30  95
    INDIRECT PAYROLL   CICSP*   *        Indirect employee trans.  Act 1.00  95
```

Figure 29. Selecting an Existing Workload Definition to Change

Entering the CHAnge line command selects the workload definition you want to modify. Figure 30 shows an example of the Application Workload Definition dialog box with the current values listed for the ACCTRECV workload. You can make changes to any field shown in the Application Workload Definition dialog box except the workload name.

```
----------------------- CHANGE CICS WORKLOAD DEFINITION -------------------
COMMAND ===>

Workload    ===  ACCTRECV                 Composite   ===> FINANCE
For Target  ===> CICSP*                  For System  ===> *
Description ===> Accounts receivable

Tran ID  ===> *
Program  ===> *
Terminal ===>
Userid   ===>
Class    ===>
Xtran    ===>

Response time of ===> 0.3        seconds
             for ===> 95         percent transactions
         Between ===> 08:00      (Start time hh:mm)
             and ===> 15:00      (End time hh:mm)
 Include Queuing ===> Y          (Y,N)

Press End to change the definition. Enter CANCEL to leave without changing.
```

Figure 30. Updating an Existing CICS Workload Definition

After updating the definition, press the END key to retain any changes you made. The updates you made are pending and are not yet saved to the workload definition. If you want to discard the updates, issue the CANCEL command instead.

After issuing the END or CANCEL command, you are returned to the CWKLDDEF view. If you have pending updates, the window information line shows an edit status of (00 EDIT MOD), indicating a workload definition has unsaved modifications. If you return to the CWKLDDEF view with the CANCEL command, you are still in an edit session although your updates have been discarded.

Any changes you made to a workload definition can be saved or canceled from the CWKLDDEF view. If you want to save your updates and exit from the CWKLDDEF view, press the END key. Type **SAVE** if you want to save any updates and maintain an edit lock on the workload definitions. Issuing the CANCEL command discards any unsaved updates and removes the edit lock.

Entering the INStall line command against the updated definition deactivates the original workload. MAINVIEW for CICS stops monitoring the regions specified in the original definition. After that, transaction monitoring immediately begins again with the updated workload definition if you are within the specified daily time range. Otherwise, transaction monitoring begins at the onset of the next daily time range.

Deleting Workload Definitions

You delete workload definitions in a two-step process of issuing the DELete line command and saving your editing changes to the workload definition data set. Until your editing changes are saved, deleted definitions can be recovered with the UNDelete command. “Recovering a Deleted Workload Definition” on page 45 explains how to recover workload definitions marked for deletion.

Figure 31 shows the CWKLDDEF view listing current workload definitions. The edit lock is active and the DELete line command can be entered against the listed workload definitions.

```
 08MAR2001  13:09:08 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                 SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT          )====MVCICS===D===10
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
    ACCTPAY  FINANCE   CICSP*   *        Accounts payable          Act 0.30  90
del ACCTRECV FINANCE   CICSP*   *        Accounts receivable       Act 0.30  90
    ACCTRET  FINANCE   CICSP*   *        Accounts return           Act 1.00  95
    DIRECT   PAYROLL   CICSP*   *        Direct employee trans.    Act 1.00  95
    BILLING  FINANCE   CICSP*   *        Debit billing             Act 0.10 100
    CICSALL  BBCICS    *        *        CICS All transactions     Act 0.50  85
    QUERY1   QUERY     CICSQ01  *        CICS queries CICSQ01      Act 0.25  95
    CICSP01  CICSP01   CICSP01  *        CICSP01 only transactions Act 1.00 100
    CICSTEST TEST0131  CICS*    *        CICS testing              Act 0.30  95
    INDIRECT PAYROLL   CICSP*   *        Indirect employee trans.  Act 1.00  95
```

Figure 31. CWKLDDEF with an Edit Lock Active for the Workload Definitions

In the CWKLDDEF view, invoking the DELete line command against ACCTRECV selects the workload definition for deletion. It is still possible to recover ACCTRECV until the SAVE command is issued.

After issuing the DELete command, the CWKLDDEF screen is updated without showing the workload definition that has been selected for deletion. Figure 32 shows that ACCTRECV has been removed from the CWKLDDEF list of current workload definitions.

```
 08MAR2001  13:09:08 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                 SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT          )====MVCICS===D====9
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
    ACCTPAY  FINANCE   CICSP*   *        Accounts payable          Act 0.30  90
    ACCTRET  FINANCE   CICSP*   *        Accounts return           Act 1.00  95
    DIRECT   PAYROLL   CICSP*   *        Direct employee trans.    Act 1.00  95
    BILLING  FINANCE   CICSP*   *        Debit billing             Act 0.10 100
    CICSALL  BBCICS    *        *        CICS All transactions     Act 0.50  85
    QUERY1   QUERY     CICSQ01  *        CICS queries CICSQ01      Act 0.25  95
    CICSP01  CICSP01   CICSP01  *        CICSP01 only transactions Act 1.00 100
    CICSTEST TEST0131  CICS*    *        CICS testing              Act 0.30  95
    INDIRECT PAYROLL   CICSP*   *        Indirect employee trans.  Act 1.00  95
```

Figure 32. CWKLDDEF after Deleting a Workload Definition

Typing **SAVE** on the **COMMAND** line permanently deletes the workload definition and any other changes you made in this editing session.

Recovering a Deleted Workload Definition

If you mistakenly delete a workload definition you meant to keep, you can undelete and recover the definition. Deleted workload definitions can be recovered with the UNDelete line command. But undeleting a workload definition is possible only if you have not yet saved your changes to the common BBPARM data set. The workload definition is permanently deleted after the delete request is saved and cannot be recovered.

Use the PARM DELETED(*) command with UNDelete to recover workload definitions. PARM DELETED(*) identifies workload definitions that have been previously marked for deletion in the current editing session. After issuing PARM DELETED(*), deleted workload definitions reappear on the CWKLDDEF screen and are colored differently from other workload definitions.

Figure 33 and Figure 34 show the CWKLDDEF screen before and after the ACCTPAY workload definition has been marked for deletion. Workloads are no longer listed on a CWKLDDEF screen after they have been selected for deletion.

```
 08MAR2001  13:09:08 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT          )====MVCICS===D====9
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
del ACCTPAY  FINANCE   CICSP*   *        Accounts payable          Act 0.30  90
    ACCTRET  FINANCE   CICSP*   *        Accounts return           Act 1.00  95
    DIRECT   PAYROLL   CICSP*   *        Direct employee trans.    Act 1.00  95
    BILLING  FINANCE   CICSP*   *        Debit billing             Act 0.10 100
    CICSALL  BBCICS    *        *        CICS All transactions     Act 0.50  85
    QUERY1   QUERY     CICSQ01  *        CICS queries CICSQ01      Act 0.25  95
    CICSP01  CICSP01   CICSP01  *        CICSP01 only transactions Act 1.00 100
    CICSTEST TEST0131  CICS*    *        CICS testing              Act 0.30  95
    INDIRECT PAYROLL   CICSP*   *        Indirect employee trans.  Act 1.00  95
```

Figure 33. Before Deleting ACCTPAY Workload Definition

```
 08MAR2001  13:09:08 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT          )====MVCICS===D====8
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
    ACCTRET  FINANCE   CICSP*   *        Accounts return           Act 1.00  95
    DIRECT   PAYROLL   CICSP*   *        Direct employee trans.    Act 1.00  95
    BILLING  FINANCE   CICSP*   *        Debit billing             Act 0.10 100
    CICSALL  BBCICS    *        *        CICS All transactions     Act 0.50  85
    QUERY1   QUERY     CICSQ01  *        CICS queries CICSQ01      Act 0.25  95
    CICSP01  CICSP01   CICSP01  *        CICSP01 only transactions Act 1.00 100
    CICSTEST TEST0131  CICS*    *        CICS testing              Act 0.30  95
    INDIRECT PAYROLL   CICSP*   *        Indirect employee trans.  Act 1.00  95
```

Figure 34. After Deleting ACCTPAY Workload Definition

Figure 35 shows the same CWKLDDEF screen after issuing the PARM DELETED(*) command. ACCTPAY is listed again, but is highlighted to indicate its pending delete status.

```
 08MAR2001  13:09:08 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT          )====MVCICS===D====9
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
und ACCTPAY  FINANCE   CICSP*   *        Accounts payable          Act 0.30  90

    ACCTRET  FINANCE   CICSP*   *        Accounts return           Act 1.00  95
    DIRECT   PAYROLL   CICSP*   *        Direct employee trans.    Act 1.00  95
    BILLING  FINANCE   CICSP*   *        Debit billing             Act 0.10 100
    CICSALL  BBCICS    *        *        CICS All transactions     Act 0.50  85
    QUERY1   QUERY     CICSQ01  *        CICS queries CICSQ01      Act 0.25  95
    CICSP01  CICSP01   CICSP01  *        CICSP01 only transactions Act 1.00 100
    CICSTEST TEST0131  CICS*    *        CICS testing              Act 0.30  95
    INDIRECT PAYROLL   CICSP*   *        Indirect employee trans.  Act 1.00  95
```

Figure 35. (Part 1) Identifying Deleted Workloads

Entering the UNDelete line command recovers workloads with a pending delete status.

```
 08MAR2001  13:09:08 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CWKLDDEF==========CICSP01==*========(00 EDIT          )====MVCICS===D====9
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
    ACCTPAY  FINANCE   CICSP*   *        Accounts payable          Act 0.30  90
    ACCTRET  FINANCE   CICSP*   *        Accounts return           Act 1.00  95
    DIRECT   PAYROLL   CICSP*   *        Direct employee trans.    Act 1.00  95
    BILLING  FINANCE   CICSP*   *        Debit billing             Act 0.10 100
    CICSALL  BBCICS    *        *        CICS All transactions     Act 0.50  85
    QUERY1   QUERY     CICSQ01  *        CICS queries CICSQ01      Act 0.25  95
    CICSP01  CICSP01   CICSP01  *        CICSP01 only transactions Act 1.00 100
    CICSTEST TEST0131  CICS*    *        CICS testing              Act 0.30  95
    INDIRECT PAYROLL   CICSP*   *        Indirect employee trans.  Act 1.00  95
```

Figure 36. (Part 2) Identifying Deleted Workloads

After undeleting a workload, the line color returns to normal for the line listing the deleted workload definition. This indicates the workload definition has been recovered.

Workload Views

This section describes the MAINVIEW for CICS workload views. Table 5 gives a brief description of each workload view and shows you where to find more information.

Table 5. MAINVIEW for CICS Workload Views

View Name	Description
CFLOW	This interval view displays the percentage of average response time that workload transactions spent in some form of delay during the current interval. See page 52.
CFLOWS	This session view displays the percentage of average response time that workload transactions spent in some form of delay during the current session. See page 52.
COBJ	This interval view displays the response or elapsed time performance of workload transactions during the current interval. See page 53.
COBJR	This real-time view displays the response or elapsed time performance of workload transactions during the current real-time period. See page 54.
COBJPRT	This real-time view displays the average response time of workload transactions for the current and preceding ten periods. See page 54.
COBJY	This is an alias for the COBJRPT view. See page 54.
COBJPRTC	This real-time view displays the average response time and transaction count of workload transactions for the current real-time period, and each of the preceding ten periods. See page 54.
COBJPTC	This real-time view displays the transaction count of workload transactions for the current real-time period, and each of the preceding ten periods. See page 54.
COBJS	This session view displays the response or elapsed time performance of workload transactions during the current session. See page 54.
COBJY	This view is an alias for the COBJPRT and shows the same information.
COBJZ	This summary view summarizes the response or elapsed time performance of workload transactions. See page 54.
CWKLDDEF	This tabular view displays information about current workload definitions. See page 49.
CWKLDDET	This detail view displays information about a specific workload definition. See page 51.
CWOVER	This interval view displays the percentage that various forms of delay contributed to average transaction response time during the current interval. See page 55.

Table 5. MAINVIEW for CICS Workload Views

View Name	Description
CWOVERD	This interval view displays a detailed analysis of how various forms of delay contributed to a transaction's average response time during the current interval. See page 56.
CWOVERDS	This session view displays a detailed analysis of how various forms of delay contributed to a transaction's average response time during the current session. See page 57.
CWOVERS	This session view displays the percentage that various forms of delay contributed to average transaction response time during the current session. See page 55.

CWKLDDEF View

To display information about the current MAINVIEW for CICS workload definitions, either

- Hyperlink from the **Composite Workload** field of the COBJ view
- Issue the command

  CWKLDDEF [*workload_name* [*composite_name* [*target* [*deleted*]]]]

  where

  workload_name Is the specific or generic name of a workload.

  composite_name Is the specific or generic name of a composite workload.

  target Is the specific or generic name of a target CICS region.

  system Is the name of the MVS system.

  deleted Indicates whether deleted workloads (that have a pending delete status) should be included in the view.

  N Do not include deleted workloads.
  Y Include deleted workloads.

The CWKLDDEF view appears, as shown in Figure 37.

```
17MAR2001  09:45:27 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CWKLDDEF==========CICSPROD=*========(00 BROWSE        )====MVCICS===D====2
CMD Workload Composite Target   System   Description               Sta Resp %Tr
--- Name---- Name----- -------- -------- ------------              --- ---- ---
    ALLWORK  TEST      *        *        test regions              Act 1.00  95
    PRDTCTN1 PRODUCTN  CICSPRD1 MVSA     production region 1       Act 1.00 100
    PRDTCTN2 PRODUCTN  CICSPRD2 MVSA     production region 1       Act 1.00 100
    QUERY1   PRODUCTN  CICSPRD3 MVSB     query region 1            Act 1.00 100
    PRDTCTN5 PRODUCTN  CICSPRD5 MVSA     production region 1       Act 1.00 100
    QUERY2   PRODUCTN  CICSPRD4 MVSB     query region 2            Act 1.00 100
```

Figure 37. CWKLDDEF View

Usage Notes

- From CWKLDDEF, you select the resources to be monitored for the regions included in a CICS workload. For details on how to define a workload, see “Defining Workloads” on page 35.
- After you enter an Edit session, workloads can be added, modified, saved, or deleted from the CWKLDDEF view.

Actions

The CWKLDDEF view supports the following actions:

Primary Command	Description
EDIT	Obtains an edit lock on the BBPARM member that contains workload definitions.
ADD	Creates a new workload definition.
CANcel	Cancels any changes made to a workload definition during an edit session by refreshing the definition with the current version in storage.
SAVE	Saves any changes made to a workload definition and maintains the current edit session.

Line Command	Description
ADD	Creates a new workload definition by using the selected definition as a model.
CHA	Changes an existing workload definition.
DEL	Deletes a workload definition.
INS	Installs a new or modified workload definition in the CAS to start transaction monitoring.
UND	If issued before the SAVE command, restores a workload definition that was previously selected for deletion with the DELete command.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Workload Name	CWKLDDET detail view.

CWKLDDET Detail View

To display information about a specific MAINVIEW for CICS workload definition, either

- Hyperlink from the **Workload Name** field of the CWKLDDEF or COBJ view
- Issue the command

  CWKLDDET*workload_name composite_name target system*

  start_time end_time

  where

workload_name	Is the name of the workload.
composite_name	Is the name of the composite workload.
target	Is the name of the target CICS region.
system	Is the name of the MVS system.
start_time	Is the time at which monitoring of the workload begins.
end_time	Is the time at which monitoring of the workload ends.

The CWKLDDET view appears, as shown in Figure 38.

```
17MAR2001  09:52:51 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CWKLDDET==========CICSPROD=*========(00 BROWSE        )====MVCICS===D===1
    Workload. PRODUCTN Description Sample CICS Workload
    Composite PRODTN1  Transaction *
    Target... CICSPRD1 Program....
    System... MVSA     Terminal...
    Response.  1.00    Userid.....
    %Trans...    95    Class......
    Start.... 09:00
    End...... 17:00
    IncQueue. Y
    Deleted.. N
    Status... Active
```

Figure 38. CWKLDDET View

Usage Notes

- The values shown in the CWKLDDET view define how performance data from CICS regions should be interpreted by MAINVIEW for CICS.
- Cumulative workload performance is based on each region's transactions meeting their response time goal.
- After you enter an Edit session, workloads can be added, modified, saved, or deleted from the CWKLDDET view.

Actions

The CWKLDDET view supports the same line command actions as the "CWKLDDEF View" on page 49.

CFLOW View

To display the percentage of average response time that workload transactions spent in some form of delay during the current interval, either

- Hyperlink from the **Avg Resp** field of the COBJ view
- Issue the command

  CFLOW [*workload_name*]

  where

  workload_name Is the specific or generic name of a workload.

The CFLOW view appears, as shown in Figure 39.

```
17MAR2001  09:59:09 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFLOW============(ALL======*=======)17MAR2001==09:59:07====MVCICS===D====4
CMD Workload Number  Avg           Delay %        Primary
--- -------- Trans-- Resp---       0.....50...100 Delay-------
    ALLWORK       18   0.196  79.1 ***********    WAIT FOR CPU
    TEST1         18   0.196  79.1 ***********    WAIT FOR CPU
```

Figure 39. CFLOW View

Usage Notes

- The primary source of delay is shown to the right of the Delay Percentage histogram.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Avg Resp	CWOVERD detail view.

Related Views

The following view is similar to the CFLOW view. The information it provides is for a different data collection period.

View	Description
CFLOWS	The percentage of average response time spent in some form of delay during the current session.

COBJ View

To display the response or elapsed time performance of workload transactions during the current interval, issue the command

COBJ [*workload_name* [*composite_name*]]

where

workload_name Is the specific or generic name of a workload.

composite_name Is the specific or generic name of a composite workload.

The COBJ view appears, as shown in Figure 40.

```
18MAR2001  11:38:07 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =COBJ==============ALL======*========18MAR2001==11:38:06====MVCICS===D====2
CMD Workload  Intvl     % <= Resp Goal Resp  Goal Avg     Tran  Composite Target
--- Name----  Time-     0.....50...100 Goal-    % Resp--- Count Workload- --------
    TEST1     08:47 78.3 ***********     1.00  100   0.361    66 TEST1     CICSPRD2
    ALLWORK   08:47 68.4 **********      1.00   95   0.220   119 SAMPLE    CICSQRY1
    ACCTREC   08:47 29.0 ****            1.00   95   0.120    89 FINANCE   CICSPRD3
```

Figure 40. COBJ View

Usage Notes

- Workloads are ranked according to the percentage of transactions that complete in less time than the response time objective defined for the workload.

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Workload Name	CWKLDDET detail view.
% <= Resp Goal	C@RSTM monitor plot view.
Avg Resp	CFLOW view.
Composite Workload	CWKLDDEF view.

Related Views

The following views are similar to the COBJ view. The information they provide is either for a different data collection period or is summarized.

View	Description
COBJPRT	The average response time of workload transactions for the current and preceding ten real-time period periods. There are ten real-time periods in each interval.
COBJY	This view is an alias for the COBJPRT view.
COBJPRTC	The average response time and transaction count of workload transactions for the current real-time period, and each of the preceding ten periods. There are 10 real-time periods in each interval.
COBJR	The response or elapsed time performance of workload transactions during the current real-time period.
COBJS	The response or elapsed time performance of workload transactions during the current session.
COBJPTC	The transaction count of workload transactions for the current real-time period, and each of the preceding ten periods. There are ten real-time periods in each interval.
COBJZ	A summary view of the response or elapsed time performance of workload transactions. The data is summarized by workload name. The Wklds field shows how many workloads are represented by each line of summary data.You can hyperlink from the Wklds field to the COBJ view to expand a line of summary data.

CWOVER View

To display the percentage that various forms of delay contributed to average transaction response time during the current interval, issue the command

CWOVER [*workload_name*]

where

workload_name Is the specific or generic name of a workload.

The CWOVER view appears, as shown in Figure 41.

```
09/23/1998 12:13:14 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =CWOVER===========(ALL======*=======)09/23/1998=12:13:14====MVCICS===D====8
CMD Workload Intvl Number  Avg     %   %   %   %   %   %   %   %   %   %   %   %
--- -------- Time- Trans-  Resp-   Dsq Cpu Cpw TC  TD  TS  FC  DB  IRC JC  PC  Sus
    PAYROLL  08:51     610   0.482   1  17  83
    ACCTRECV 08:51     210   0.382   1  25  20                  55
    INQUIRE1 08:51     114   0.147      19  30          5               22  24
    ANOTHER  08:51      13   0.053   1  33  40                      25
    ONE4TONY 08:51       9   0.049   2  38  41             19
    TEST     08:51       9   0.044   2  28  50             20
```

Figure 41. CWOVER View

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Avg Resp	CWOVERD detail view.

Related Views

The following view is similar to the CWOVER view. The information it provides is for a different data collection period.

View	Description
CWOVERS	The percentage that various forms of delay contributed to average transaction response time during the current session.

CWOVERD Detail View

To display a detailed analysis of how CPU processing and various forms of delay contributed to a transaction's average response time during the current interval, either

- Hyperlink from the **Avg Resp** field of the CWOVER or CFLOW view
- Issue the command

  CWOVERD ***workload_name***

  where

  workload_name Is the name of the workload.

The CWOVERD view appears, as shown in Figure 42.

```
18MAR2001  11:02:15 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFLOW====CWOVERD=(ALL======PRODCTN1)=18MAR2001==11:01:39====MVCICS===D====1
    Workload......... PRODCTN1

    Number Trans.....       36
    Avg Response.....    1.386

    Response Analysis            % of Response Time
    -----------------           0........50......100
    Dispatch Queue...        0
    Using CPU........       31  ******
    Waiting for CPU..       42  *********
    Terminal Control.        0
    Transient Data...        0
    Temporary Storage        7  **
    File Control.....        0
    DataBase Wait....       20  ****
    Interregion Wait.        0
    Journal Control..        0
    Program Control..        0
    Redispatch Wait..        0
    Enqueue Delay....        0
    LU 6.1 Wait......        0
    LU 6.2 Wait......        0
    FEPI Wait........        0
    RMI Suspend......        0
    Lock Manager.....        0
    RLS Wait.........        0
    Shared TS........        0
    CICS WAIT EXT....        0
    CICS WAITCICS....        0
    Interval Control.        0
    Give Up Control..        0
    Other Suspend....        0
```

Figure 42. CWOVERD View

Usage Notes

- The CWOVERD view includes a graph showing the percentage distribution of transaction response time over CPU processing and the delay categories.
- The total number of transactions and the calculated average response time during the interval are shown near the top left of the view.

Related Views

The following view is similar to the CWOVERD view. The information it provides is for a different data collection period.

View	Description
CWOVERDS	A detailed analysis of how CPU processing and various forms of delay contributed to a transaction's average response time during the current session.

Chapter 4. Operation Views

This chapter describes the MAINVIEW for CICS operation views. These views provide a variety of information about the current operation of your CICS regions, both individually and across the CICSplex environment. The information includes the status and performance of such active elements as automatic initiate descriptors (AIDs), interval control elements (ICEs), JAVA virtual machine (JVM) pools, and temporary storage queues.

Table 6 gives a brief description of each operation view and shows you where to find more information.

Table 6. MAINVIEW for CICS Operation Views

View Name	Description
CAIDS	This tabular view displays information about outstanding AIDs. See page 61.
CAIDSD	This detail view displays information about a specific AID. See page 65.
CAIDSQ	This detail menu provides access to information about a specific AID and related resources. See page 63.
CAIDSZ	This summary view displays summarized information about AIDs. See page 62.
CDUMPCD	This tabular view displays information about system and transaction dumps for the CICS regions in the current context. See page 67.
CDUMPCDD	This detail view displays information about system and transaction dumps for a specific CICS region. See page 69.
CDUMPCDQ	The Easy menu for transaction dump views. See page 71.
CICES	This tabular view displays information about current ICEs waiting to be dispatched. See page 67.
CICESD	This detail view displays information about a specific ICE. See page 74.
CICESQ	This detail menu provides access to information about a specific ICE and related resources. See page 73.
CICESZ	This summary view displays summarized information about ICEs. See page 73.
CJVMPL	This tabular view displays information about JAVA Virtual Machine (JVM) pools. See page 76.
CJVMPLD	This detail view displays information about a specific JVM pool. See page 79.
CJVMPLQ	This detail menu displays information about a specific JVM pool and related resources. See page 78.
CJVMPLZ	This summary view displays summarized information about JVM pools. See page 77.

Table 6. MAINVIEW for CICS Operation Views (continued)

View Name	Description
CTIOT	This tabular view displays information task inputs and outputs. See page 80.
CVOLUME	This summary view displays summarized information about the volumes used by the CICS regions. See page 81.
TSQUECF	This tabular view displays information about temporary storage queues that are shared through the Coupling Facility. See page 80.
TSQUECFD	This detail view displays information about a specific shared temporary storage queue. See page 84.
TSQUECFQ	This detail menu displays information about a specific shared temporary storage queue and related resources. See page 83.
TSQUECFZ	This summary view displays summarized information about shared temporary storage queues. See page 83.
TSQUEUE	This tabular view displays information about temporary storage queues. See page 85.
TSQUEUED	This detail view displays information about a specific temporary storage queue. See page 88.
TSQUEUEQ	This detail menu provides access to information about a specific temporary storage queue and related resources. See page 87.
TSQUEUEZ	This summary view displays summarized information about temporary storage queues. See page 86.

CAIDS View

To display information about outstanding automatic initiate descriptors (AIDs), issue the command

CAIDS [*target* [*address* [*location*]]]

where

target Is the specific or generic name of a target CICS region.

address Is the specific or generic virtual storage address of an AID.

location Specifies where the AID is to be executed.

LOCAL On the local CICS region

REMOTE On a remote CICS region

INDIRECT On a remote CICS region by way of an indirect connection

The CAIDS view appears, as shown in Figure 43.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CAIDS============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
CMD Address  Target    Con/Term Tran   Char     Hexadecimal      Type   Locatio
---                       ID     ID  AID Data     AID Data
    19972030 CICSPRD1 L228      CECI          0000000000000000 ICP-INIT LOCAL
```

Figure 43. CAIDS View

Usage Notes

- The CAIDS view can be used to detect problems in the CICS environment. In addition to listing automatically initiated tasks that are waiting, this view shows which terminal is required and the scheduled terminal type.
- The full-screen, target-oriented AID display is still supported for compatibility with earlier releases of MAINVIEW for CICS. For information on the AID display, refer to the MAINVIEW for CICS version 5.3 *Online Services Reference Manual*.

Actions

The CAIDS view supports the following line command action:

Line Command	Description
PUR	Purges an AID.

Hyperlinks

The default hyperlinks defined for the CAIDS view are as follows:

Field	Data Displayed
Address	CAIDSQ detail menu for the selected AID
Target	EZCREGN view for the selected CICS region
Con/Term ID	CAIDSD detail view for the selected AID

Related Views

The following view is similar to the CAIDS view. The information it provides is summarized.

View	Description
CAIDSZ	A summary view of AIDs The data is summarized by CICS region. The Count field shows how many AIDs are represented by each line of summary data. You can hyperlink from the Count field to the CAIDS view to expand a line of summary data.

CAIDSQ Detail Menu

To display a menu of detailed information about a specific automatic initiate descriptor (AID) and related resources, hyperlink from the **Address** field of the CAIDS view.

The CAIDSQ detail menu appears, as shown in Figure 44.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CAIDS====CAIDSQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
          CICS AID Detail Menu

    CICS Region -------------------------->         CICSPRD1
    CICS AID Address --------------------->         199A5030

             AID  Detail Forms                                  Other Menus
  . Attributes                                                > Target Menu
                                                              > Fullscreen Menu




               Related Views
  . Target Region Analysis
  . Dump AID Data

  . Connection/Terminal Detail                            L228
  . Transaction Detail                                    CECI
  . Suspend TCA                                            N/A
   .TCTTE                                             1A008030

  . Current Task on Terminal
  . ICE Data
```

Figure 44. CAIDSQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CAIDSQ menu are as follows:

Field	Data Displayed
Attributes	CAIDSD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region that is using this AID
Dump AID Data	DUMP full-screen display
Connection/ Terminal Detail	CTERMD detail view for the terminal associated with a local AID, or CCONND detail view for the connection associated with a remote AID
Transaction Detail	CTRAND detail view for the user transaction associated with this AID
Suspend TCA	DUMP full-screen display The value in the Suspend TCA field must be a valid address; otherwise, the hyperlink is not active.

Field	Data Displayed
TCTTE	DUMP full-screen display The value in the TCTTE field must be a valid address; otherwise, the hyperlink is not active.
Current Task on Terminal	TASK view for active tasks on a terminal that is associated with a local AID The value in the Connection/Terminal Detail field must be a terminal ID; otherwise, this hyperlink is not active.
ICE Data	CICES view

CAIDSD Detail View

To display detailed information about a specific automatic initiate descriptor (AID), hyperlink from

- the **Con/Term ID** field of the CAIDS view
- the **Attributes** field of the CAIDSQ detail menu

The CAIDSD view appears, as shown in Figure 45.

```
18MAR2001  12:06:49 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CAIDS====CAIDSD===(ALL======*=======)18MAR2001==12:06:49====MVCICS===D===1
  Target................... CICSPRD1
  Address.................. 19FEF030

  Type..................... ICP-INIT AID Data..........
  Location.................    LOCAL   Character............
                                       Hexadecimal.......... 0000000000000000
  Status...................
    Sent to TOR............       NO Time Stamp.............
    Cancel Remote..........       NO   Day of Year..........               89
    Routed to AOR..........       NO   Time of Day..........         06:39:47
    Purged.................       NO
    Task Initiated.........       NO LU6.2 Mode Name........              N/A
    Rerouted to TOR........       NO Shipped Via System.....
                                     TD Destination.........              N/A
  Request Flags............          Target Term Netname....         TCPBL157
    Privileged Allocate....       NO TOR Netname............         CICSTORA
    Non-Purgeable Allocate.       NO Original TOR Netname...         CICSTORA
    Dynamic Transaction....       NO Remote Delete Netname..              N/A
    Routable Start.........       NO
    Prevent Duplicate......       NO BMS Data...............
    Remote Transaction.....       NO   Operator Check Type..              N/A
    Remote Terminal........       NO   Operator Check ID....              N/A
    Recoverable TS PUT.....       NO   Message Title Present              N/A
    Start Code SZ for FEPI.       NO
                                     Transaction ID.........             CECI
  Reschedulable............       NO Transaction System ID..              N/A
  Transaction Routing......       NO Task ID................              N/A
  Function Shipping........       NO
                                     Addresses..............
  Connection/Terminal ID...     L157   AID Address..........         19FEF030
  Terminal System ID.......      N/A   TCTTE Address........         1A008030
  Current Terminal ID......            Suspend TCA..........              N/A
```

Figure 45. CAIDSD Detail View

Actions

The CAIDSD detail view supports the same line command actions as the “CAIDS View” on page 61.

Hyperlinks

The default hyperlinks defined for the CAIDSD view are as follows:

Field	Data Displayed
Target	EZCREGN view
Address	CAIDSQ detail menu
Connection/ Terminal ID	CTERMD detail view for the terminal associated with a local AID, or CCONND detail view for the connection associated with a remote AID
Transaction ID	CTRAND detail view for the user transaction associated with this AID
AID Address	DUMP full-screen display
TCTTE Address	DUMP full-screen display The value in the TCTTE Address field must be a valid address; otherwise, the hyperlink is not active.
Suspend TCA	DUMP full-screen display The value in the Suspend TCA field must be a valid address; otherwise, the hyperlink is not active.

CDUMPCD View

To display information about system and transaction dumps for the CICS regions, perform one of the following actions:

- Hyperlink from the **CICS Dumpcodes** link on the EZCSSI easy menu
- Issue the command

  CDUMPCD [*target*]

where

target Is the specific or generic name of a target CICS region.

The CDUMPCD view appears, as shown in Figure 49.

```
2002/03/07 12:53:16 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
 COMMAND  ===>                                                SCROLL ===> CSR
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CDUMPCD==========(BCVCJPH==*=======)2002/03/07=12:53:16====MVCICS===D===11
 CMD Dump     Target    Dump Code   Curr  TDumps TDumps SDumps SDumps   Max   Du
 --- Code                 Type      Dumps Taken   Supp  Taken   Supp   Dumps  Sc
     AKCS     BCVCJH40 TRANSACTION      0      0      0      0      0    N/A LOC
     AZCT     BCVCJH40 TRANSACTION      0      0      0      0      0    N/A LOC
     AZCT     BCVCJH52 TRANSACTION      0      0      0      0      0    N/A LOC
     AED3     BCVCJH53 TRANSACTION      1      0      0      0      0    N/A LOC
     ATNI     BCVCJH53 TRANSACTION      1      0      0      0      0    N/A LOC
     AZCT     BCVCJH53 TRANSACTION      0      0      0      0      0    N/A LOC
     CXSP     BCVCJH53 TRANSACTION      1      0      0      0      0    N/A LOC
     LDIN     BCVCJH53 TRANSACTION      1      0      0      0      0    N/A LOC
     PAGE     BCVCJH53 TRANSACTION      2      0      0      0      0    N/A LOC
     RMIN     BCVCJH53 TRANSACTION      1      0      0      0      0    N/A LOC
     AZCT     BCVCJH61 TRANSACTION      0      0      0      0      0    N/A LOC
```

Figure 46. CDUMPCD View

Usage Notes

- NOTRANDUMP causes the Tran Dumps Suppressed counter to be incremented. NOSYSDUMP causes the System Dumps Suppressed counter to be incremented. The value of Current Dumps increments regardless of suppression. When the Maximum Dumps count is reached, dumps are suppressed regardless of other options.
- Using the RES (reset) command sets Maximum Dumps count to 0.

Actions

The CDUMPCD view supports the following line command action:

Line Command	Description
ADD	Adds a new dump code to the CICS system. See “Adding Dump Codes” on page 68 for information about adding and changing dump codes.
SET	Changes the values of the dumpcode options. The value in the **Dump Code Type** field cannot be changed with this command. Other editable fields can be changed. See“Adding Dump Codes” on page 68.

Line Command	Description
RES	Resets the current dump count to 0. Does not reset the other counts.
DEL	Deletes the dump code from the CISC system.

Adding Dump Codes

To add a dump code, perform the following:

1. Identify the new dump code by typing over the information in the **Dump Code** field.
2. Change the value of any editable field by typing over the value then using the SET command. Fields that can be edited are described in Table 7.
3. Type **ADD** on the associated **CMD** field.
4. Press Enter to create the dump code.

Table 7. Editable CDUMPCD Fields

Field	Comments
Dump Code	Identifies the dump code.
Dump Code Type	Valid values are: SYSTEM or TRANSACTION
Max Dumps	Numeric field. A value of 999 will set it to N/A.
Dump Scope	Valid values are: LOCAL or RELATED
Shut Down Option	Valid values are: SHUTDOWN or NOSHUTDOWN
SDUMP Option	Valid values are: SYSDUMP or NOSYSDUMP
Tran Dump Option	Valid values are: TRANDUMP or NOTRANDUMP. Not available (N/A) if Dump Code Type=SYSTEM.
DAE Option	Valid values are: DAE or NODAE. Not available (N/A) if Dump Code Type=TRANSACTION.

Note: Dump codes are case sensitive. The value in the **Dump Code Type** field can only be changed with the ADD command

Hyperlinks

The default hyperlinks defined for the CDUMPCD view are as follows:

Field	Data Displayed
Dump Code	CDUMPCDQ quick menu
Target	EZCREGN easy menu
Dump Code Type	CDUMPCDD detail view

CDUMPCDD View

To display detailed information about system and transaction dumps for a specific CICS region, perform one of the following actions:

- Hyperlink from the **Dump Code Type** field on the CDUMPCD view
- Issue the command

  CDUMPCDD [*target*]

where

target Is the specific or generic name of a target CICS region.

The CDUMPCDD view appears, as shown in Figure 49.

```
2002/03/07 13:35:20 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
 COMMAND  ===>                                                SCROLL ===> CSR
 CURR WIN ===> 1        ALT WIN ===>
  W1 =CDUMPCD==CDUMPCDD(BCVCJPH==BCVCJH53)2002/03/07=13:30:25====MVCICS===D====1
     Target.................    BCVCJH53
     Dump Code..............        AZCT

     Attributes..............             Statistics..............
      Dump Code Type......... TRANSACTION  Current Dumps..........      0
      Maximum Dumps..........         N/A  Tran Dumps Taken.......      0
      Dump Scope............       LOCAL  Tran Dumps Suppressed..      0
      Shut Down Option.......  NOSHUTDOWN  System Dumps Taken.....      0
      SDUMP Option...........   NOSYSDUMP  System Dumps Suppressed      0
      Transaction Dump Option  NOTRANDUMP
      DAE Option.............         N/A
```

Figure 47. CDUMPCDD View

Usage Notes

- You can use the Command line next to the **Target** field to create a new dump code. All line commands are valid but the dump code's type cannot be changed with the SET command.
- When a new dump code is created with this view, the original dump code information is displayed.

Actions

The CDUMPCDD view supports the following line command action:

Line Command	Description
ADD	Adds a new dump code to the CICS system. See "Adding Dump Codes" on page 68 for information about adding and changing dump codes.
SET	Changes the values of the dumpcode options. The value in the **Dump Code Type** field cannot be changed with this command. Other editable fields can be changed. See"Adding Dump Codes" on page 68.
RES	Resets the current dump count to 0. Does not reset the other counts.

DEL	Deletes the dump code from the CISC system.

Hyperlinks

The default hyperlinks defined for the CDUMPCDD view are as follows:

Field	**Data Displayed**
Target	EZCREGN Easy menu
Dump Code	CDUMPCDQ Quick menu

CDUMPCDQ View

To display the Quick menu for transaction dumps, perform one of the following actions:

- Hyperlink from the **Dump Code** field on the CDUMPCD view
- Hyperlink from the **Dump Code** field on the CDUMPCDD view
- Issue the command

  CDUMPCDQ [*target*]

where

target Is the specific or generic name of a target CICS region.

The CDUMPCDQ view appears, as shown in Figure 49.

```
30MAY2002  09:40:00 ------ MAINVIEW WINDOW INTERFACE(V4.1.01)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =CDUMPCDQ=========(BCVDVPC==*=======)30MAY2002==09:40:00====MVCICS===D====1
        CICS Dump Detail Menu

  CICS Region ------------------------->      BCVCD610
  Dump Code -------------------------->          AZCT

          Dump Code Detail Forms                        Other Menus
. Attributes And Usage Statistics                     > Target Menu
                                                      > Fullscreen Menu









             Related Views
. Target Region Analysis
```

Figure 48. CDUMPCDQ View

Hyperlinks

The default hyperlinks defined for the CDUMPCDQ view are as follows:

Field	Data Displayed
Attributes And Usage Statistics	CDUMPCD view
Target Region Analysis	CREGET4 view
Target Menu	EZCREGN Easy menu
Fullscreen Menu	Primary Option Menu

CICES View

To display information about current interval control elements (ICEs) that are waiting to be dispatched by a CICS region, issue the command

CICES [*target* [*address*]]

where

target Is the specific or generic name of a target CICS region.

address Is the specific or generic virtual storage address of an ICE.

The CICES view appears, as shown in Figure 49.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CICES============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====6
CMD Address  Target      ID    Tran      ID in       Type  Expire   Remain
---                               ID    Hexadecimal           Time     Time
    199AB030 CICSPRD1 CMRJRNL2 JNL2 C3D4D9D1D9D5D3F2 POST 07:13:49 00:00:03
    199AB0C8 CICSPRD1 CMRIFIC2 FIC2 C3D4D9C9C6C9C3F2 INIT 07:14:00 00:00:14
    199AB160 CICSPRD1 DF0000E6 CRSQ C4C6F0F0F0F0C5F6 INIT 15:03:52 07:50:07
    199AB1F8 CICSPRD1 DFHCMON  CCMF C4C6F0F0F0F0C5F2 INIT 19:03:51 11:50:05
    1A0B9670 CICSPRD2 CMRJRNL2 JNL2 C3D4D9D1D9D5D3F2 POST 07:13:46 00:00:01
    1A0B9350 CICSPRD2 CMRIFIC2 FIC2 C3D4D9C9C6C9C3F2 INIT 07:14:00 00:00:14
```

Figure 49. CICES View

Usage Notes

- The CICES view can be used to inspect time-initiated transactions (such as the periodic statistics transaction CCMF) to determine when they are due to expire.
- The full-screen, target-oriented ICE display is still supported for compatibility with earlier releases of MAINVIEW for CICS. For information on the ICE display, refer to the MAINVIEW for CICS version 5.3 *Online Services Reference Manual*.

Actions

The CICES view supports the following line command action:

Line Command	Description
PUR	Purges an ICE.

Hyperlinks

The default hyperlinks defined for the CICES view are as follows:

Field	Data Displayed
Address	CICESQ detail menu for the selected ICE
Target	EZCREGN view for the selected CICS region

Field	Data Displayed
ID	CICESD detail view for the selected ICE
Tran ID	CTRAND detail view for the selected transaction

Related Views

The following view is similar to the CICES view. The information it provides is summarized.

View	Description
CICESZ	A summary view of ICEs The data is summarized by CICS region. The Count field shows how many ICEs are represented by each line of summary data. You can hyperlink from the Count field to the CICES view to expand a line of summary data.

CICESQ Detail Menu

To display a menu of detailed information about a specific interval control element (ICE) and related resources, hyperlink from the **Address** field of the CICES view.

The CICESQ detail menu appears, as shown in Figure 50.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CICES====CICESQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
          CICS ICE Detail Menu

    CICS Region -------------------------->         CICSPRD1
    CICS ICE Address --------------------->         199A5030

             ICE  Detail Forms                                   Other Menus
  . Attributes                                                 > Target Menu
                                                               > Fullscreen Menu




               Related Views
  . Target Region Analysis
  . Dump ICE Data

  . Transaction Detail                                     JNL2
  . Deferred Dynamic Start Transaction                      N/A
  . Router Program Name                                     N/A
  . DTR Program Commarea                             00000000

  . AID Data
```

Figure 50. CICESQ Detail Menu

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Attributes	CICESD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region that is using this ICE
Dump ICE Data	DUMP full-screen display
Transaction Detail	CTRAND detail view for the user transaction associated with this ICE
Deferred Dynamic Start Transaction	CTRAND detail view for the deferred dynamic start transaction, if available The value in the Deferred Dynamic Start Transaction field must be a valid transaction ID; otherwise, the hyperlink is not active.
Router Program Name	CPROGD detail view for the router program, if available The value in the Router Program Name field must be a valid program name; otherwise, the hyperlink is not active.
DTR Program Commarea	DUMP full-screen display The value in the DTR Program Commarea field must be a valid address; otherwise, the hyperlink is not active.
AID Data	CAIDS view

CICESD Detail View

To display detailed information about a specific interval control element (ICE), hyperlink from

- the **Address** field of the CICES view
- the **Attributes** field of the CICESQ detail menu

The CICESD view appears, as shown in Figure 51 on page 75.

```
18MAR2001  12:06:49 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CICES====CICESD===(ALL======*=======)18MAR2001==12:06:49====MVCICS===D===1
  Target...............      CICSPRD1
  ICE Address..........      199A5030

  Request ID...........      CMRJRNL2 Create Time.......... 10:38:47
  Transaction ID.......          JNL2 Expire Time.......... 10:38:52
  User ID.............               Remaining Time....... 00:00:01

  Type................          POST Terminal ID..........      N/A
  Status..............       ONCHAIN Terminal Netname.....      N/A
  Routed Transaction...           N/A TOR Netname..........      N/A
  Function Shipped.....           N/A
                                      Netname/SYSID........      N/A
  Def. Dyn. Start Tran.           N/A Modename.............      N/A
  Router Program Name..           N/A Shipped via SYSID....      N/A
  DTR Commarea........            N/A
  DTR Commarea Length..
```

Figure 51. CICESD Detail View

Actions

The CICESD detail view supports the same line command actions as the “CDUMPCD View” on page 67.

Hyperlinks

The default hyperlinks defined for the CICESD view are as follows:

Field	Data Displayed
Target	EZCREGN view
ICE Address	CICESQ detail menu
Transaction ID	CTRAND detail view for the user transaction associated with this ICE
Def. Dyn. Start Tran	CTRAND detail view for the deferred dynamic start transaction, if available The value in the Def. Dyn. Start Tran field must be a valid transaction ID; otherwise, the hyperlink is not active.
Router Program Name	CPROGD detail view for the router program, if available The value in the Router Program Name field must be a valid program name; otherwise, the hyperlink is not active.
DTR Commarea	DUMP full-screen display The value in the DTR Commarea field must be a valid address; otherwise, the hyperlink is not active.

CJVMPL View

To display information about the pool of JAVA virtual machines available to run programs on behalf of CICS Web transactions, issue the command

CJVMPL [*target*]

where

target Is the specific or generic name of a target CICS region.

The CJVMPL view appears, as shown in Figure 52.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CJVMPL===========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====2
CMD  Target   Status   Curr   Peak   Phase  <===== ====== Reqsts ====== =====
--- -------- --------  JVMs   JVMs    outs   Total  Reuse  Inits MsMtch  Terms
    CICSPRD1 ENABLED       0      0       0      0      0      0      0      0
    CICSPRD2 ENABLED       0      0       0      0      0      0      0      0
```

Figure 52. CJVMPL View

Actions

The CJVMPL view supports the following line command actions:

Line Command	Description
DIS	Disables a JVM pool.
ENA	Enables a JVM pool.
FOR	Forces a JVM pool to terminate. All JVMs in the pool are marked for deletion when their CICS task ends. The CICS tasks are automatically purged by a SET TASK FORCEPURGE command.
PUR	Purges a JVM pool. All JVMs in the pool are marked for deletion when their CICS task ends. The CICS tasks are automatically purged by a SET TASK PURGE command.
SET	Changes the value in a modifiable field to the new value you type in that field. In JVM pool views, the Status field can be set to ENABLED or DISABLED. **Note:** Be sure the field contains exactly the value you want before pressing Enter to issue the SET command. You must clear the field of any other data to prevent it from being passed as part of the new value.

Line Command	Description
TRM	Terminates a JVM pool. All JVMs in the pool are marked for deletion when their CICS task ends. The CICS tasks are allowed to terminate normally.

Hyperlinks

The default hyperlinks defined for the CJVMPL view are as follows:

Field	Data Displayed
Target	CJVMPLQ detail menu for the selected JVM pool
Status	CJVMPLD detail view for the selected JVM pool

Related Views

The following view is similar to the CJVMPL view. The information it provides is summarized.

View	Description
CJVMPLZ	A summary view of JVM pools The data is summarized by CICS region. The Count field shows how many JVM pools are represented by each line of summary data. You can hyperlink from the Count field to the CJVMPL view to expand a line of summary data.

CJVMPLQ Detail Menu

To display a menu of detailed information about a specific JAVA virtual machine (JVM) pool and related resources, hyperlink from the **Target** field of the CJVMPL view.

The CJVMPLQ detail menu appears, as shown in Figure 53.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CJVMPL===CJVMPLQ==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
          CICS JVM Pool Detail Menu

    CICS Region -------------------------->         CICSPRD1

          JVM Pool Detail Forms                                 Other Menus
  . Attributes and Statistics                                 > Target Menu
                                                              > Fullscreen Menu




               Related Views
  . Target Region Analysis
```

Figure 53. CJVMPLQ Detail Menu

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Attributes and Statistics	CJVMPLD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region that is using this JVM pool

CJVMPLD Detail View

To display detailed information about a specific JAVA virtual machine (JVM) pool, hyperlink from

- the **Status** field of the CJVMPL view
- the **Attributes and Statistics** field of the CJVMPLQ detail menu

The CJVMPLD view appears, as shown in Figure 54.

```
18MAR2001  12:06:49 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CJVMPL===CJVMPLD==(ALL======*=======)18MAR2001==12:06:49====MVCICS===D===1
  Target...............      CICSPRD1

  Status...............       ENABLED
                                        JVM Requests................
  Current JVMs.........             0  Total......................       0
  Current Phaseouts....             0  Reused JVMs................       0
                                       Initializations............       0
                                       Mismatches.................       0
                                       Terminates.................       0
```

Figure 54. CJVMPLD Detail View

Actions

The CJVMPLD detail view supports the same line command actions as the “CJVMPL View” on page 76.

Hyperlinks

The default hyperlinks defined for the CJVMPLD view are as follows:

Field	Data Displayed
Target	EZCREGN view
Status	CJVMPLQ detail menu

CTIOT View

To display information about task inputs and outputs for CICS regions, perform one of the following actions:

- Hyperlink from the **CICS TIOT** link on the EZCFSSI Easy menu
- Hyperlink from the **Alloc Count** field on the CVOLUME view
- Issue the command

  CTIOT [*target*]

where

target Is the specific or generic name of a target CICS region.

The CTIOT view appears, as shown in Figure 49.

```
06MAR2002  12:02:43 --------- MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS---------
COMMAND  ===>
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTIOT=============BCVCJH53=*========06MAR2002==12:01:31====MVCICS===D==100
  DDNAME   Target  SEQ  FCT  Volume EXCP   EXCP      EXCP   Data Set Name
                   NUM Entry        Count  Time     Avg Tm
 CMRVS17  BCVCJH53   0 FCT   BAB329   743     0.465 0.00063 BCVM.CICS530.BCVCJH
 CMRVS18  BCVCJH53   0 FCT   BAB329   743     0.464 0.00063 BCVM.CICS530.BCVCJH
 CMRVS19  BCVCJH53   0 FCT   BAB329   743     0.462 0.00062 BCVM.CICS530.BCVCJH
 CMRVS20  BCVCJH53   0 FCT   BAB329   743     0.464 0.00062 BCVM.CICS530.BCVCJH
 CMRVS21  BCVCJH53   0 FCT   BAB329   743     0.466 0.00063 BCVM.CICS530.BCVCJH
 CMRVS22  BCVCJH53   0 FCT   BAB329   743     0.468 0.00063 BCVM.CICS530.BCVCJH
 COUT     BCVCJH53   0 NOFCT JES2                           BCVCSTC.BCVCJH53.ST
 CRPO     BCVCJH53   0 NOFCT JES2                           BCVCSTC.BCVCJH53.ST
 CSQ4FIL  BCVCJH53   0 FCT   BAB302                        BCVM.MQS.CSQ.ACCTFI
 CSSL     BCVCJH53   0 NOFCT JES2                           BCVCSTC.BCVCJH53.ST
 DFHAUXT  BCVCJH53   0 NOFCT BAB314                        BCVM.CICS530.BCVCJH
 DFHRPL   BCVCJH53   0 NOFCT BAB327  1056     1.683 0.00159 CICS530.SDFHLOAD
 DFHRPL   BCVCJH53   1 NOFCT BAB327                        CICS530.SDFHLOAD
 DFHRPL   BCVCJH53   2 NOFCT TSG311                        SYS2.XDCS20.XDCLINK
```

Figure 55. CTIOT View

Usage Notes

- This view contains one line for each DD statement in the CICS JCL and a line for each dynamically allocated data set.

Hyperlinks

The default hyperlinks defined for the CTIOT view are as follows:

Field	Data Displayed
Target	EZCREGN Easy menu
FCT Entry	CFILED view
Volume	CVOLUME summary view

CVOLUME View

To display summary information about the volumes used by CICS regions, perform one of the following actions:

- Hyperlink from the **CICS Volumes** link on the EZCFSSI Easy menu
- Hyperlink from the **Volume** field on the CTIOT view
- Hyperlink from the **Excp Rate** field on one of the CREGDET*n* views
- Issue the command

  CVOLUME [*target*]

where

target Is the specific or generic name of a target CICS region.

The CVOLUME view appears, as shown in Figure 49.

```
6MAR2002  13:10:44 ----------- MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS--------
COMMAND  ===>
 CURR WIN ===> 1        ALT WIN ===>
 W1 =CVOLUME===========BCVCJH53=*========06MAR2002==13:10:43====MVCICS===D===29
 Volume    Target  Alloc  EXCP    EXCP      EXCP   Device Dev  Device   DDNAME
                   Count  Count   Time     Avg Tm   Type  Addr Status
 APD29J   BCVCJH53     5      58     0.045 0.00078 3390   855A ONLINE   *******
 BAB301   BCVCJH53     1      10     0.012 0.00123 3390   8519 ONLINE   DFHRPL
 BAB302   BCVCJH53     4                            3390   851A ONLINE   *******
 BAB303   BCVCJH53     6    1704     1.580 0.00093 3390   851B ONLINE   DFH****
 BAB309   BCVCJH53     2                            3390   835E ONLINE   *******
 BAB311   BCVCJH53     9     319     0.444 0.00139 3390   8360 ONLINE   *******
 BAB312   BCVCJH53     1                            3390   8361 ONLINE   DFHRPL
 BAB314   BCVCJH53     8       2     0.001 0.00058 3390   8363 ONLINE   *******
 BAB315   BCVCJH53     1                            3390   8364 ONLINE   DFHRPL
 BAB316   BCVCJH53     1       1     0.002 0.00218 3390   8365 ONLINE   DFHRPL
 BAB318   BCVCJH53     1       2     0.002 0.00102 3390   8367 ONLINE   SYSIN
 BAB319   BCVCJH53     2      20     0.031 0.00153 3390   8368 ONLINE   *******
 BAB322   BCVCJH53     2       2     0.019 0.00941 ****** 836B ******** *******
```

Figure 56. CVOLUME View

Usage Notes

- This view displays summary information of the CTIOT view.

Hyperlinks

The default hyperlinks defined for the CVOLUME view are as follows:

Field	**Data Displayed**
Target	EZCREGN Easy menu
Alloc Count	CTIOT view

TSQUECF View

To display information about temporary storage queues that are shared across a sysplex through the coupling facility, issue the command

TSQUECF [*target* [*tsq_name*]]

where

target Is the specific or generic name of a target CICS region.

tsq_name Is the specific or generic name of a shared temporary storage queue.

The TSQUECF view appears, as shown in Figure 57.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TSQUECF==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====3
CMD  Pool         TSQueue      Target  Queue  Rec Crea Queue  Item  Time Since
---  Ident         Name                 Type  Flg Tran Length Count Last Ref
    PRD1TS01 TSASHAR.         CICSPRD1 USER   NO  PTS1    164     2 00:00:11
    PRD1TS01 TSASHAR.         CICSPRD1 USER   NO  PTS1    164     2 00:00:11
    PRD1TS01 TSMSHAR.         CICSPRD1 USER   NO  PTS1    164     2 00:00:11
```

Figure 57. TSQUECF View

Actions

The TSQUECF view supports the following line command action:

Line Command	Description
PUR	Purges a shared temporary storage queue

Hyperlinks

The default hyperlinks defined for the TSQUECF view are as follows:

Field	Data Displayed
Pool Ident	TSQUECFQ detail menu for the selected shared temporary storage queue
TSQueue Name	TSQUECFD detail view for the selected shared temporary storage queue
Target	EZCREGN view

Related Views

The following view is similar to the TSQUECF view. The information it provides is summarized.

View	Description
TSQUECFZ	A summary view of shared temporary storage queues The data is summarized by pool identifier. The Count field shows how many queues are represented by each line of summary data. You can hyperlink from the Count field to the TSQUECF view to expand a line of summary data.

TSQUECFQ Detail Menu

To display a menu of detailed information about a specific shared temporary storage queue and related resources, hyperlink from the **Pool Ident** field of the TSQUECF view.

The TSQUECFQ detail menu appears, as shown in Figure 58.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TSQUECF==TSQUECFQ=(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
          CICS Shared TSQueue Detail Menu

    CICS Region ------------------------>         CICSPRD1
    CICS Shared TS Queue Pool----------->         PRD1TS01
    CICS Shared TS Queue Name----------->         TSASHAR.

        Shared TS Queue Detail Forms                          Other Menus
  . Attributes                                              > Target Menu
                                                            > Fullscreen Menu




              Related Views
  . Target Region Analysis
  . Unsummarized CF Temp Storage Queues

  . Temporary Storage Queues
  . Transaction Creating this TS Queue                PTS1
```

Figure 58. TSQUECFQ Detail Menu

Hyperlinks

The default hyperlinks defined for the TSQUECFQ detail menu are as follows:

Field	Data Displayed
Attributes	TSQUECFD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region that is using this shared temporary storage queue

Field	Data Displayed
Unsummarized CF Temp Storage Queues	TSQUECF tabular view
Temporary Storage Queues	TSQUEUE view of temporary storage queues
Transaction Creating this TS Queue	CTRAND detail view for the CICS transaction that created this shared temporary storage queue

TSQUECFD Detail View

To display detailed information about a specific shared temporary storage queue, hyperlink from

- the **TSQueue Name** field of the TSQUECF view.
- the **Attributes** field of the TSQUECFQ detail menu.

The TSQUECFD view appears, as shown in Figure 59.

```
18MAR2001  12:06:49 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TSQUECF==TSQUECFD=(ALL======*=======)18MAR2001==12:06:49====MVCICS===D===1
  TargetCollector             CICSPRD1

  TSQ Pool........            PRD1TS01
  TSQ Name........            TSASHAR. Hex E2C8D9E3E3E2C1014040404040404040
  Creating Tran ID                PTS1
  Since Last Ref..         00:00:00.28

  Type............              USER
  Recoverable.....                NO

  Storage Length..               164
  Min Rec Length..                82
  Max Rec Length..                82
  Number of Items.                 2
```

Figure 59. TSQUECFD Detail View

Actions

The TSQUECFD detail view supports the same line command actions as the “CTIOT View” on page 80.

Hyperlinks

The default hyperlinks defined for the TSQUECFD view are as follows:

Field	Data Displayed
Creating Tran ID	CTRAND detail view for the CICS transaction that created this shared temporary storage queue

TSQUEUE View

To display information about temporary storage queues, including how much storage each queue is using, issue the command

TSQUEUE [*target* [*tsq_name* [*location* [*tsq_type*]]]]

where

target Is the specific or generic name of a target CICS region.

tsq_name Is the specific or generic name of a temporary storage queue.

location Specifies the location of the temporary storage PUT data.

AUX Auxiliary storage

MAIN Main storage

tsq_type Specifies the type of temporary storage queue.

USER User TSQ

SYSTEM System TSQ

The TSQUEUE view appears, as shown in Figure 60.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TSQUEUE==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====3
CMD       TSQ        Target   Loc    TSUT   Tran  Data   Item  Read Rec Typ TSQ
---       Name                     Address   ID  Length   Num  Next
    SHRTTSA.         CICSPRD1 Aux  19070198 TSTQ     160     2    2 No  Use E2C
    SHRTTSM.         CICSPRD1 Aux  19070210 TSTQ     160     2    2 No  Use E2C
    TEST\/{}         CICSPRD1 Main 19071300 TSTQ     320     4    0 No  Use E3C
```

Figure 60. TSQUEUE View

Actions

The TSQUEUE view supports the following line command action:

Line Command	Description
PUR	Purges a temporary storage queue

Hyperlinks

The default hyperlinks defined for the TSQUEUE view are as follows:

Field	Data Displayed
TSQ Name	TSQUEUEQ detail menu for the selected temporary storage queue
Target	EZCREGN view for the selected CICS region

Field	Data Displayed
Loc	TSQUEUED detail view for the selected temporary storage queue
TSUT Address	DUMP full-screen display The value in the TSUT Address field must be a valid address; otherwise, the hyperlink is not active.

Related Views

The following view is similar to the TSQUEUE view. The information it provides is summarized.

View	Description
TSQUEUEZ	A summary view of temporary storage queues The data is summarized by temporary storage queue name. The Count field shows how many queues are represented by each line of summary data. You can hyperlink from the Count field to the TSQUEUE view to expand a line of summary data.

TSQUEUEQ Detail Menu

To display a menu of detailed information about a specific temporary storage queue and related resources, hyperlink from the **TSQ Name** field of the TSQUEUE view.

The TSQUEUEQ detail menu appears, as shown in Figure 61.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TSQUEUE==TSQUEUEQ=(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
          CICS TS Queue Detail Menu

    CICS Region ------------------------>         CICSPRD1
    CICS TSQ Name----------------------->    LONGTSA_Name.

             TS Queue Detail Forms                            Other Menus
  . Attributes                                             > Target Menu
                                                           > Fullscreen Menu




               Related Views
  . Target Region Analysis

  . TSUT Entry Storage                             19FF51B0
  . TS Queue Data Storage                          19FF6060
```

Figure 61. TSQUEUEQ Detail Menu

Hyperlinks

The default hyperlinks defined for the TSQUEUEQ detail menu are as follows:

Field	Data Displayed
Attributes	TSQUEUED detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region that is using this temporary storage queue
TSUT Entry Storage	DUMP full-screen display The value in the TSUT Entry Storage field must be a valid address; otherwise, the hyperlink is not active.
TS Queue Data Storage	DUMP full-screen display The value in the TS Queue Data Storage field must be a valid address; otherwise, the hyperlink is not active.

TSQUEUED Detail View

To display detailed information about a specific temporary storage queue, hyperlink from

- the **Loc** field of the TSQUEUE view.
- the **Attributes** field of the TSQUEUEQ detail menu.

The TSQUEUED view appears, as shown in Figure 62.

```
18MAR2001  12:06:49 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TSQUEUE==TSQUEUED=(ALL======*=======)18MAR2001==12:06:49====MVCICS===D===1
  Target..........          CICSPRD1

  TSQ Name........          SHRTTSA. Hex E2C8D9E3E3E2C1014040404040404040
  Creating Tran ID              TSTQ
  Since Last Ref..       00:00:07.14

  Location........               Aux
  Type............              User
  Recoverable.....               No

  Storage Length..               160
  Min Rec Length..                80
  Max Rec Length..                80
  Number of Items.                 2
  Read Next.......                 2

  TSUT Address....          19070198
  Storage Address.          19072060
```

Figure 62. TSQUEUED Detail View

Actions

The TSQUEUED detail view supports the same line command actions as the “TSQUEUE View” on page 85.

Hyperlinks

The default hyperlinks defined for the TSQUEUED view are as follows:

Field	Data Displayed
Target	EZCREGN view
TSQ Name	TSQUEUEQ detail menu
TSUT Address	DUMP full-screen display The value in the TSUT Address field must be a valid address; otherwise, the hyperlink is not active.
Storage Address	DUMP full-screen display The value in the Storage Address field must be a valid address; otherwise, the hyperlink is not active.

Chapter 5. Region Views

This chapter describes the MAINVIEW for CICS region views. These views provide high-level information about the status, performance, and system parameters of CICS regions in your CICSplex environment.

Table 8 gives a brief description of each region view and shows you where to find more information.

Table 8. MAINVIEW for CICS Region Views

View Name	Description
CREGDET*n*	These detail views display performance information for a specific CICS region. The specific view name corresponds to the release of CICS that the region is running. See page 94.
CREGDB2	This tabular view displays information about the DB2 attachment facility for CICS regions. See page 94.
CREGDB2D	This detail view displays information about the DB2 attachment facility for a specific CICS region. See page 97.
CREGDSAS	This tabular view displays information about storage utilization within active CICS regions. See page 100.
CREGDSA	This detail view displays DSA utilization information for a CICS region, including CICS subpools and MVS allocations. See page 101.
CREGDBC	This tabular view displays information about the DBCTL connection for CICS regions. See page 98.
CREGDBCD	This detail view displays information about the DBCTL connection for a specific CICS region. See page 99.
CREGMQS	This tabular view displays information about the MQ Series attachment for CICS regions. See page 103.
CREGMQSD	This detail view displays information about the MQ Series attachment for a specific CICS region. See page 104.
CREGTSP	This tabular view displays information about the temporary storage facility for CICS regions. See page 111.
CREGTSPD	This detail view displays information about the temporary storage facility for a specific CICS region. See page 112.
CREGHR	This tabular view displays performance information for CICS regions over time. See page 100.
CREGION	This tabular view displays performance information for active CICS regions during the current interval. See page 93.
CREGIONR	This tabular view displays real-time performance information for active CICS regions. See page 94.

Table 8. MAINVIEW for CICS Region Views

View Name	Description
CREGIONZ	This summary view displays summarized information for active CICS regions. See page 94.
CREGMSGR	This tabular view displays real-time performance information and message counts for active CICS regions. See page 106.
CREGOVER	This tabular view provides a performance overview of active CICS regions during the current interval. See page 107.
CREGOVRR	This tabular view provides a real-time performance overview of active CICS regions. See page 108.
CREGPRB	This tabular view displays information about outstanding problems in active CICS regions. See page 108.
CREGSYS	This tabular view displays system settings for active CICS regions. All of the settings are modifiable. See page 109.
CREGSYSD	This detail view displays the system settings for a specific CICS region. All of the settings are modifiable. See page 111.
CREGSYSZ	This summary view displays summarized information about system settings for active CICS regions. All of the settings are modifiable. See page 110.
CREVDn	These detail views display the system initialization table (SIT) parameters for a CICS region. Each view presents one or more logical groupings of SIT parameters. See page 116.
CREVIEW	This tabular view displays information about active CICS regions, including the suffix of each region's SIT. See page 111.
EZCSREGN	Easy menu for region views.

CREGION View

To display performance information for all CICS regions that were active during the current interval, issue the command

CREGION [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGION view appears, as shown in Figure 63.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGION==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====2
CMD Target   SMF   Total        Total  EXCP  Real  Page  Disp %Max  Tran   Avg
--- Name     ID      CPU  %CPU   Excp  Rate   Stg  Rate  Prty Task  Rate  Resp
    CICSPRD1 MVSA  17.19   0.4   3436  0.24  2539  0.00  F1    5.0  0.02 0.033
    CICSPRD2 MVSA   9.73   0.4   2939  0.02   520  0.00  F1    5.0  0.02 0.025
```

Figure 63. CREGION View

Usage Notes

The performance statistics presented in the CREGION view are calculated from the work done by the region during the current interval.

Hyperlinks

The default hyperlinks defined for the CREGION view are as follows:

Field	Data Displayed
Target Name	EZCREGN easy menu
Total CPU	CREGDET*n* detail view for the selected CICS region
EXCP Rate	CVOLUME for the selected CICS region
%Max Task	TASK view for the selected CICS region
Avg Resp	GRAPH GLBL SYSTEM full-screen display
Intvl ExcpR	CVOLUME for the selected CICS region

Related Views

The following views are similar to the CREGION view. The information they provide either is for a different data collection period or is summarized.

View	Description
CREGIONR	Performance information for active CICS regions during the current real-time period
CREGIONZ	A summary view of active CICS regions The data is summarized by MVS image. The Total Regions field shows how many CICS regions are represented by each line of summary data. You can hyperlink from the Total Regions field to the CREGION view to expand a line of summary data. **Note:** Unlike CREGION, the CREGIONZ view accepts no parameters.
EZCSREGN	The Easy menu for region views.

CREGDET*n* Detail Views

To display a detailed performance analysis of a specific CICS region, perform one of the following actions:

- Hyperlink from the **Total CPU** field of the CREGION view
- Issue the command

  CREGDET*n* *target*

  where

  n Identifies which release of CICS the target region is running.

  4 CICS/ESA Release 4.1
  5 CTS Release 1.1
  6 CTS Release 1.2 and later

  target Is the name of the target CICS region.

Figure 64 shows a sample CREGDET6 detail view.

```
04MAR2002  08:11:34 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
 COMMAND  ===>                                                SCROLL ===> CSR
 CURR WIN ===> 1        ALT WIN ===>
  W1 =CREGION==CREGDET6(JB56ALL==BCVCJ530)04MAR2002==08:11:34====MVCICS===D====1
   Target Name...   BCVCJ530 Realtime Stats...          MVS Overview...
   CICS Applid...   BCVCJ530  % MaxTask.......     35.0  Addr Space ID.     00DF
   System Id.....       J530  Average Response     0.00  Real Storage..     2039
   Release.......        530  Tran Rate.......     0.00  Dispatch Prty.       FD
   SMF Id........       SJSC  Tran Count......        0
   Status........     ACTIVE  % Using CPU.....     0.00  DSA (%Used)...     13.2
                              EXCP Rate.......        0   CDSA.........     50.8
   Subsystem Ids.             Paging Rate.....     0.00   UDSA.........      4.6
    DB2 ssid.....       DB2H                             SDSA.........      4.6
    DB2 Threads..          1 Interval Stats...           RDSA.........     77.3
    DBCTL ssid...       D18H  Average Response     0.03
    DBCTL Threads          1  Tran Rate.......     0.01  EDSA (%Used)..     30.2
    MQ ssid......       BCDQ  Tran Count......        2   ECDSA........     82.7
    MQ Threads...          1  % Using CPU.....     0.04   EUDSA........     12.5
                              EXCP Rate.......        0   ESDSA........      5.0
   Temp Storage..             Paging Rate.....     0.00   ERDSA........     86.3
    String Waits.          0
    Buffer Waits.          0 Session Stats....          Problem Type...   Count
                              Average Response     0.20  Information...        0
   Transient Data             Tran Rate.......     0.04  Warning.......        0
    String Waits.          0  Tran Count......       77  Severe........        0
    Buffer Waits.          0  Total CPU.......     3.28  Total.........        0
                              EXCP Count......     5191
   Loader Stats..             Paging Rate.....     0.00
    Pgm Fetches..        422
```

Figure 64. CREGDET6 Detail View

Usage Notes

- There is a detail view for each release of CICS supported by MAINVIEW for CICS. Some fields in the detail views are unique to the associated release of CICS.
- Performance statistics shown in the CICS region detail views are calculated from all work done within the region during the current interval.

Hyperlinks

The default hyperlinks defined for the CREGDET*n* view are as follows:

Field	Data Displayed
Target Name	SUMMARY full-screen display
CICS Applid	VTAM full-screen display
DB2 ssid	CREGDB2D detail view
DB2 Threads	DB2TASK full-screen display
DBCTL ssid	CREGDBCD detail view
DBCTL Threads	DBCTASK full-screen display
MQ ssid	CREGMQSD detail view

Field	Data Displayed
MQ Threads	MQTASK full-screen display
Temp Storage	CREGTSPD detail view
Transient Data	CREVDK detail view for transient data options
Pgm Fetches	PROGRAM full-screen display
%Max Task	TASK view
Average Response	GRAPH GLBL SYSTEM full-screen display
EXCP Rate	CVOLUME view
DSA (% Used) and EDSA (% Used)	CREGDSA detail view

CREGDB2 View

To display information about the DB2 attachment facility for active CICS regions, perform one of the following actions:

- Hyperlink from the **DB2 Information** field of the EZCSREGN view
- Issue the command

  CREGDB2 [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGDB2 view appears, as shown in Figure 65

```
04MAR2002  08:27:09 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
 COMMAND  ===>                                                SCROLL ===> CSR
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CREGDB2==========(JB56ALL==*=======)04MAR2002==08:27:09====MVCICS===D====4
   Target  ATTACHMENT   DB2      DB2  SIGNON   Max Curr ERR  Stat Connect  Conne
           STATUS       Sys      REL    ID     TCB TCBS DST1 Dest Name     Statu
  BCVCJ410 INACTIVE                                0    0
  BCVCJ520 STARTED      DB2H     0510 BCVCJ520  30    0 CSMT CSSL RCT5H    CONNE
  BCVCJ530 STARTED      DB2H     0510 BCVCJ530  30    1 CSMT CSSL RCT5H    CONNE
  BCVCJ610 STARTED      DB2H     0510 BCVCJ610  30    0 CDB2 CDB2 RCT5A    CONNE
```

Figure 65. CREGDB2 View

Usage Notes

- Displays one line for each CICS region.
- The many fields in this view can be displayed by scrolling to the right several times.

Hyperlinks

The default hyperlinks defined for the CREGDB2 view are as follows:

Field	Data Displayed
Target	EZCREGN easy menu
Attachment Status	CREGDB2Q quick menu
DB2 Sys	CREGDB2D detail view

CREGDB2D View

To display a detailed information about the DB2 attachment facility for a specific CICS region, perform one of the following actions:

- Hyperlink from the **DB2 Sys** field of the CREGDB2 view
- Hyperlink from the **DB2 ssid** field of the CREGDET*n* view
- Issue the command

  CREGDB2D [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGDB2D view appears, as shown in Figure 65

```
22MAY2002  10:58:42 ------ MAINVIEW WINDOW INTERFACE(V4.1.01)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGDB2D=========(BCVDVPC==BCVCD530)22MAY2002==10:58:08====MVCICS===D====1
Target............        BCVCD530

DB2 System Info...                          Thread Purge Info...
 Attach Stat......         STANDBY          Purge Cycle Minutes            0
 DB2 Sysid........            DB2D          Purge Cycle Seconds           30
 DB2 Release......                           Purge Time.........
 Signon ID........        BCVCD530
 Statistics Dest..            CSSL         Ready Queue Info....
 Control Table....                           Queue Tasks........            0
 Dump Sysout Class                           HWM Queue Tasks....            0

TCB Usage.........                          Trace IDs...........
 Maximum TCBs.....              30           Entry Trace Id.....
 Current TCBs.....               0           Exit Trace Id......
 HWM TCBs.........               0           Call Trace Id......
 Free TCBs........               0
                                            Other Info..........
Error Information.                           Attach Release.....
 1st Error Dest...            CSMT           Start Wait Action..
 2nd Error Dest...                           Plan Exit Pgm......
 3rd Error Dest...                           Plan Entry Count...
 Connect Error Act         SQLCODE           Tran Entry Count...
 Thread Error Act.           ABEND           Non-Term Release...           NO

Connection Info...
 Connection Name..           RCT61
 Connection Status      CONNECTING
 Connection State.             N/A
 Standy By Mode...       RECONNECT
 Connection Date..
 Connection Time..
 Disconnect date..
 Disconnect Time..
```

Figure 66. CREGDB2D Detail View

Hyperlinks

The default hyperlinks defined for the CREGDB2D view are as follows:

Field	Data Displayed
Target	EZCREGN easy menu

CREGDBC View

To display information about the DBCTL connection for CICS regions, perform one of the following actions:

- Hyperlink from the **DBCTL Information** field of the EZCSCREGN Easy menu
- Hyperlink from the **DBCTL ssid** field of the CREGDET*n* view
- Issue the command

  CREGDBC [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGDBC view appears, as shown in Figure 67

```
004MAR2002  09:33:12 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
 COMMAND  ===>                                              SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CREGDBC==========(JB56ALL==*=======)04MAR2002==09:33:12====MVCICS===D====1
   Target    JOB       STATUS   DBCT Min   Max   Act Sched Sess  Connect    Regi
             NAME                Id   Thrds Thrds Thr Count Numbr   Time      Typ
  BCVCJ530 IMS51D   Ready       D18H     3     5   0     0     1 00:25:09 DBCTL
```

Figure 67. CREGDBC View

Usage Notes

- One line is displayed for each CICS that attempted to connect to DBCTL regardless of whether the attempt was successful.

Hyperlinks

The default hyperlinks defined for the CREGDBC view are as follows:

Field	Data Displayed
Target Name	EZCREGN easy menu
Job Name	CREGDBCQ quick menu
Status	CREGDBCD detail view

CREGDBCD View

To display detailed information about the DBCTL connection for a specific CICS region, perform one of the following actions:

- Hyperlink from the **Status** field of the CREGDBC view
- Issue the command

  CREGDBCD [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGDBCD view appears, as shown in Figure 68

```
04MAR2002  09:36:23 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =CREGDBC==CREGDBCD(JB56ALL==BCVCJ530)04MAR2002==09:33:12====MVCICS===D====1
     Target Name..................           BCVCJ530
     Connection Status............              Ready
     Job Name.....................             IMS51D
     DBCTL Sys Id.................               D18H

     Thread Information...........
      Minimum Threads.............                  3
      Maximum Threads.............                  5
      Active Threads..............                  0

     Scheduled Count..............                  0
     Session Number...............                  1
     Connected Time...............           00:25:09
     Region Type..................              DBCTL
     Table Suffix.................                 5D
     Command Recognition Character
```

Figure 68. CREGDBCD View

Usage Notes

- **Connected Time** displays the time elapsed since the connection was made.

Hyperlinks

The default hyperlinks defined for the CREGDBCD view are as follows:

Field	Data Displayed
Target Name	EZCREGN
?	?

CREGDSAS View

To display information about storage utilization within active CICS regions, perform one of the following actions:

- Hyperlink from the **Region DSA Usage** field of the EZCSREGN view
- Issue the command

  CREGDSAS [*target*]

where

target Is the specific or generic name of a target CICS region.

Figure 69 shows a sample CREGDSAS view.

```
21MAY2002  11:53:48 ------ MAINVIEW WINDOW INTERFACE(V4.1.01)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGDSAS=========(BCVDVPC==*=======)21MAY2002==11:53:48====MVCICS===D====5
CMD Target   Intvl  %CPU  Tran   Avg  DSA  %DSA   MVS  %MVS  EDSA  %EDSA EMVS
--- Name     Time-  Used  Rate  Resp Limit Used  Limit Used  Limit Used  Limit
    BCVCD410 11:53 ----- ----- ----- ----- ----- ----- ----- ----- ----- -----
    BCVCD510 11:53 ----- ----- ----- ----- ----- ----- ----- ----- ----- -----
    BCVCD520 11:53 ----- ----- ----- ----- ----- ----- ----- ----- ----- -----
    BCVCD530 11:53   0.0  0.01 0.002  5.3M  10.7  6.3M  91.0 21.0M  59.0  252M
    BCVCD610 11:53   0.1  0.01 0.002  5.3M  10.1  6.3M  90.0 21.0M  62.0  252M
```

Figure 69. CREGDSAS View

Usage Notes

The **Intvl Time** field enables you to set the interval. Clicking on an item in this column sets the interval to that used by the selected record.

Hyperlinks

The default hyperlinks defined for the CREGDET*n* view are as follows:

Field	Data Displayed
Target Name	EZCREGN Easy menu
Intvl Time	Sets the interval
% CPU Used	CREGDT6 view

CREGDSA View

To display DSA utilization information for a CICS region including CICS subpools and MVS allocations, perform one of the following actions:

- Hyperlink from the **DSA (% Used)** or th**e EDSA (% Used)** field of the CREGDET*n* view
- Issue the command

  CREGDSA [*target*]

where

target Is the specific or generic name of a target CICS region.

Figure 70 shows a sample CREGDSA view.

```
04MAR2002  08:16:04 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
 COMMAND  ===>                                                 SCROLL ===> CSR
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CREGION==CREGDSA=(JB56ALL==BCVCJ530)04MAR2002==08:11:34====MVCICS===D====1
      Target     BCVCJ530

      Area          Size     Used    %Used    Large  SOS#   Cush    HWM   HWM%

      CDSA           524K      266K    50.8    258K     0    66K    274K   52.0
      UDSA           262K    12288     4.6    250K     0    66K   12288    4.0
      RDSA           524K      406K    77.3   61440     0    66K    406K   77.0
      SDSA           262K    12288     4.6    250K     0    66K   12288    4.0

      ECDSA          4.2M      3.5M    82.7    725K     0   131K    3.5M   82.0
      EUDSA          1.0M      131K    12.5    918K     0      0    131K   12.0
      ERDSA         10.5M      9.1M    86.3    971K     0   262K    9.1M   86.0
      ESDSA          1.0M     53248     5.0    995K     0   131K   57344    5.0

      DSALIMIT       5.2M      696K    13.2
      EDSALIMIT     41.9M     12.7M    30.2

      MVS <16M       6.2M      5.7M    92.0    446K
      MVS >16M       1.7G     52.1M     3.0    1.6G
```

Figure 70. CREGDSA View

Hyperlinks

The default hyperlinks defined for the CREGDSA view are as follows:

Field	Data Displayed
CDSA	SUBPOOL full-screen display
UDSA	SUBPOOL full-screen display
RDSA	SUBPOOL full-screen display
SDSA	SUBPOOL full-screen display
ECDSA	SUBPOOL full-screen display
EUDSA	SUBPOOL full-screen display
ERDSA	SUBPOOL full-screen display
ESDSA	SUBPOOL full-screen display
DSALIMIT	SUBPOOL full-screen display
EDSALIMIT	SUBPOOL full-screen display
MVS <16M	REGIONS full-screen display
MVS > 16M	REGIONS full-screen display

CREGHR View

To display a performance overview of CICS regions over time, issue the command

CREGHR [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGHR view appears, as shown in Figure 71.

```
18MAR2001  12:26:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGHR===========(ALL======*=======)18MAR2001==12:26:40====MVCICS===D====8
CMD Target   Intvl       Interval % CPU   EXCP  Page  Intv  Tran    Avg  Region
--- Name---- Time-       0.....50....100  Rate  Rate  Tran  Rate   Resp  Status
    CICSPRD1 10:30  1.6                   3.62  0.00    18  0.02  1.643  Active
    CICSPRD1 10:45  0.2                   0.00  0.00    15  0.02  0.032  Active
    CICSPRD1 11:00  0.2                   0.00  0.00    15  0.02  0.050  Active
    CICSPRD1 11:15  0.2                   0.00  0.00    15  0.02  0.031  Active
    CICSPRD1 11:30  0.2                   0.00  0.00    15  0.02  0.080  Active
    CICSPRD1 11:45  0.3                   0.00  0.00    15  0.02  0.034  Active
    CICSPRD1 12:00  0.2                   0.00  0.00    15  0.02  0.053  Active
    CICSPRD1 12:15  0.2                   0.00  0.00    12  0.02  0.045  Active
```

Figure 71. CREGHR View

Usage Notes

- The CREGHR view is similar to the CREGION view; however, it displays multiple intervals of data for each region.
- By default, the CREGHR view presents two hours' worth of data.

CREGMQS View

To display information about the MQ Series attachment for CICS regions, perform one of the following actions:

- Hyperlink from the **MQ Series Information** field of the EZCSREGN Easy menu
- Issue the command

  CREGMQS [*target*]

where

target Is the specific or generic name of a target CICS region.

Figure 72 shows a sample CREGMQS view.

```
04MAR2002  08:24:40 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGMQS==========(JB56ALL==*=======)04MAR2002==08:24:40====MVCICS===D====4
  Target  MQ   Connection   MAX STR BSY CUR TOT BKO COM 2   1   IN  DBT DBT DBT
          Sys  STATUS       SRV SRV SRV TSK TSK TSK TSK PHA PHA DBT UNR REC BKO
 BCVCJ410      N/A            0   0   0   0   0   0   0   0   0   0   0   0   0
 BCVCJ520 BCDQ CONNECTED     20   8   8   0   2   0   0   0   0   0   0   0   0
 BCVCJ530 BCDQ CONNECTED     20   8   8   1   2   0   0   0   0   0   0   0   0
 BCVCJ610      N/A            0   0   0   0   0   0   0   0   0   0   0   0   0
```

Figure 72. CREGMQS View

Usage Notes

- Each line represents a single CICS region. Each CICS region in the current context is displayed regardless of whether or not it supports MQ Series.
- Additional fields can be displayed by scrolling to the right.

Hyperlinks

The default hyperlinks defined for the CREGMQS view are as follows:

Field	Data Displayed
Target	EZCREGN easy menu
MQ Sys	CREGMQSQ quick menu
Connection Status	CREGMQSD detail view

CREGMQSD View

To display a detailed information about the MQ Series attachment for a specific CICS region, perform one of the following actions:

- Hyperlink from the **MQ ssid** field of the CREGDET*n* view, or the **Connection Status** field on the CREGMQS view
- Issue the command

  CREGMQSD [*target*]

where

target Is the specific or generic name of a target CICS region.

Figure 73 shows a sample CREGMQSD view.

```
04MAR2002  08:25:09 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS-----------
COMMAND  ===>                                                SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGMQS==CREGMQSD(JB56ALL==BCVCJ530)04MAR2002==08:24:40====MVCICS===D====
    Target Name..........     BCVCJ530                     Init queue
    Connection Status.....    CONNECTED
    MQ System Id..........         BCDQ

    Server Information....              API Information
     Maximum Servers......           20  Total Calls...   3
     Started Servers......            8  Nominal Calls.   2
     Busy Servers.........            8  Opens.........   2
                                        Closes........   0
    Task Information......              Gets..........   0
     Current Tasks........            1  Get Waits.....   0
     Total Tasks..........            2  Puts..........   0
     Backed Out Tasks.....            0  Put One Phase.   1
     Committed Tasks......            0  Inquire.......   0
     Two Phase Commit.....            0  Set...........   0
     One Phase Commit.....            0
     Inbdoubt.............            0 Task Flow Info.
     Unrecovered Indoubt..            0  Synchronous...   5
     Recovered Indoubt....            0  Suspends......   0
     Backed Out Indoubt...            0  Gets Waited...   0
                                        Gets Switched.   5
    Trace Information.....
     Trace ID.............            1
     Trace Status.........           ON
```

Figure 73. CREGMQSD View

Hyperlinks

The default hyperlinks defined for the CREGMQSD view are as follows:

Field	Data Displayed
Target Name	EZCREGN easy menu

CREGMSGR View

To display real-time performance information and message counts for active CICS regions, issue the command

CREGMSGR [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGMSGR view appears, as shown in Figure 74.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGMSGR=========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====2
CMD Target   SMF   Tran Tran Avg   CPU%   Page Info  Warn  Sev   Total Region
--- Name     ID    Rate Cnt  Resp         Rate Count Count Count Count Status
    CICSPRD1 MVSA  0.02    1  0.01   0.0  0.00                        Active
    CICSPRD2 MVSA  0.01    1  0.02   0.0  0.00     1           1     2 Inactive
```

Figure 74. CREGMSGR View

Usage Notes

The CREGMSGR view includes counts of the messages issued by selected MAINVIEW for CICS monitors.

Hyperlinks

The default hyperlinks defined for the CREGMSGR view are as follows:

Field	Data Displayed
Target Name	EZCREGN easy menu
Tran Rate	TASK view for the selected CICS region
CPU%	CREGDET*n* detail view for the selected CICS region
Info Count **Warn Count** **Sev Count** **Total Count**	CREGPRB view for the selected type of messages

CREGOVER View

To display a performance overview of active CICS regions during the current interval, issue the command

CREGOVER [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGOVER view appears, as shown in Figure 75.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGOVER=========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
CMD Target                    EXCP   EXCP     Tran   Tran      Avg    Avg
--- Name----  %CPU 0......100 Rate 0......200 Rate 0.......50  Resp 0.......10
    CICSPRD1   0.1            4.50            0.02            0.033
```

Figure 75. CREGOVER View

Usage Notes

The CREGOVER view displays four key performance indicators both numerically and graphically:

CPU Percent The CPU time consumed by the CICS region expressed as a percentage of the total available time.

EXCP Rate The number of EXCPs issued by the CICS region expressed as a rate over the current interval.

Transaction Rate The number of transactions executing per second during the current interval.

Average Response The average response time of all transactions executing in the CICS region during the current interval.

Hyperlinks

The default hyperlinks defined for the CREGOVER view are as follows:

Field	Data Displayed
Target Name	EZCREGN easy menu
%CPU	CREGDET*n* detail view for the selected CICS region
EXCP Rate	VOLUME full-screen display
Tran Rate	TASK view for the selected CICS region
Avg Resp	GRAPH GLBL SYSTEM full-screen display

Related Views

The following view is similar to the CREGOVER view. The information it provides is for a different data collection period.

View	Description
CREGOVRR	A performance overview of active CICS regions during the current real-time period

CREGPRB View

To display information about outstanding problems in active CICS regions, issue the command

CREGPRB [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGPRB view appears, as shown in Figure 76.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGPRB==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====3
  Region  MsgId                          Message Text
 -------- ------                         ------------
 CICSPRD2 FT067W __4998 TEMPORARY STORAGE EXTENSIONS CREATED         > 1000
 CICSPRD2 FT074W TRAN TC02     TASK 00421 WAITING RESOURCE CPRDTMP
 CICSPRD2 FT086I _____1 STORAGE DUMPS HAVE BEEN TAKEN                > 0
```

Figure 76. CREGPRB View

Usage Notes

To see the name of the MAINVIEW for CICS monitor that issued a particular message, scroll the CREGPRB view to the right.

Hyperlinks

The default hyperlinks defined for the CREGPRB view are as follows:

Field	Data Displayed
Region	EZCREGN easy menu
MsgId	MESSAGES full-screen display for the selected message

CREGSYS View

To display information about current system settings for active CICS regions, issue the command

CREGSYS [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREGSYS view appears, as shown in Figure 77.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ----------------------------
COMMAND  ===>                                                 = SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGSYS==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D=====2
CMD Target   SYSID  Max     DSA        EDSA     <= === DUMP ====== ===> Runaway
---                Tasks   Limit       Limit    DS SYS Swtc Status Init Timeout
    CICSPRD1 PRD1     20   5242880   1038090240 A  NO  NO   OPEN   AUTO   99999
    CICSPRD2 PRD2     20   5242880     20971520 A  YES NEXT OPEN   AUTO   20000
    CICSTSTT TSTT     20   5242880     31457280 A  NO  NO   OPEN   AUTO   20000
    CICSTSTX TSTX     20   5242880     20971520 A  NO  NO   OPEN   AUTO   20000
```

Figure 77. CREGSYS View

Actions

The CREGSYS view supports the following line command action:

Line Command	Description
SET	Changes the value in a modifiable field to the new value you type in that field. All of the fields in the CREGSYS view are modifiable except Target and SYSID. **Note:** Be sure the field contains exactly the value you want before pressing Enter to issue the SET command. You must clear the field of any other data to prevent it from being passed as part of the new value.

Hyperlinks

The default hyperlinks defined for the CREGSYS view are as follows:

Field	Data Displayed
Target	EZCREGN easy menu
SYSID	CREGSYSD detail view for the selected CICS region

Related Views

The following view is similar to the CREGSYS view. The information it provides is summarized.

View	Description
CREGSYSZ	A summary view of system settings for active CICS regions The data is summarized by CICS region. The Count field shows how many CICS regions are represented by each line of summary data. You can hyperlink from the Count field to the CREGSYS view to expand a line of summary data.

CREGSYSD Detail View

To display the system settings for a specific CICS region, perform one of the following actions:

- Hyperlink from the???
- Issue the command

  CREGSYSD ***target***

  where

  target Is the name of the target CICS region.

The CREGSYSD view appears, as shown in Figure 78.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CREGSYS==CREGSYSD=(ALL=====CICSPRD2)18MAR2001==12:06:40====MVCICS===D===1
    Target Name..........   CICSPRD2
    CICS SYSID...........       PRD2

    Maximum Tasks.........         20 Timing Data...............
                                      Runaway Timeout..........    20000
    DSA Limit............    5242880  ICV Wait Time............     1000
    EDSA Limit...........   31457280  Terminal Scan Delay......      100
                                      Priority Aging Time......        1
    Dump.................             Auto Keypoint Frequency..      200
     Current Dataset......          A
     Open Status..........       OPEN Program Autoinstall.......
     System Dump Option...         NO  State...................   ACTIVE
     Switch Option........         NO  Catalog Option..........     NONE
     Initial Dataset......       AUTO  Exit Name............... DFHPGADX

    DTR Program Name......     DFHDYP Quasi Reentrant Option....      N/A
```

Figure 78. CREGSYSD View

Actions

The CREGSYSD detail view supports the same line command action as the “CREGSYS View” on page 109.

Hyperlinks

The default hyperlinks defined for the CREGSYSD view are as follows:

Field	Data Displayed
Target Name	EZCREGN view for the selected CICS region

CREGTSP View

To display information about the temporary storage facility for CICS regions, perform one of the following actions:

- Hyperlink from the **Region TS Usage** field on the EZCSREGN Easy menu

- Issue the command

  CREGTSP [*target*]

where

target Is the specific or generic name of a target CICS region.

Figure 79 shows a sample CREGTSP view.

```
04MAR2002  08:19:16 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
 COMMAND  ===>                                                SCROLL ===> CSR
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =CREGTSP==========(JB56ALL==*=======)04MAR2002==08:19:16====MVCICS===D====4
   Target  CLD Curr  HWM   Put   Get   Num   CI    # CIs # CIs HWM   % CI  Seg
           STR Main  Main  Main  Main  CIs   Size  Inuse Avail Inuse Avail Size
  BCVCJ410 YES     0     0     0     0   360  4096     1   359     2   100   64
  BCVCJ520 YES     0     0     0     0   359  4096     1   358     2   100   64
  BCVCJ530 YES     0     0     0     0   359  4096     7   352     7    98   64
  BCVCJ610 YES     0     0     0     0   359  4096     1   358     2   100   64
```

Figure 79. CREGTSP View

Usage Notes

- One line is displayed for each CICS region.
- Except for CICS 4.1, the **QUE Exten** and **Que Thres.** fields display N/A.

Hyperlinks

The default hyperlinks defined for the CREGTSP view are as follows:

Field	Data Displayed
Target	EZCREGN easy menu
CLD STR	CREGTSPQ quick menu
Curr Main	CREGTSPD detail view

CREGTSPD View

To display a detailed information about the temporary storage facility for a specific CICS region, perform one of the following actions:

- Hyperlink from the **Curr Main** field of the CREGTSP view, or the **Temp Storage** field of the CREGDET*n* view
- Issue the command

  CREGTSPD [*target*]

where

target Is the specific or generic name of a target CICS region.

Figure 80 shows a sample CREGTSPD detail view.

```
04MAR2002  08:21:45 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREGTSP==CREGTSPD(JB56ALL==BCVCJ410)04MAR2002==08:19:16====MVCICS===D====1
 Target Name............. BCVCJ410

 Temp Store Main..........             Aux Storage Strings.......
  Current In Use..........        0     Number of Strings........        3
  HWM In Use..............        0     number of String Waits...        0
  Number of Put Main......        0     Current String Waits.....        0
  Number of Get Main......        0     HWM String Waits.........        0

 Control Intervals........             Aux I/O Stats............
  Number of CIs...........      360     Number of Put Aux........        1
  CI Size.................     4096     Number of Get Aux........        1
  Number in Use...........        1     Number of Get I/Os.......        0
  Number Available........      359
  HWM In Use..............        2    Other Information.........
  % CIs Available.........      100     Segment Size.............       64
  Writes > CI Size........        0     Segments per CI..........       63
                                        Number Suspensions.......        0
 Aux Storage Buffers......              Number Queue Extensions..        0
  Number of Buffers.......        3     Queue Extension Threshold        4
  Number Buffer Waits.....        0     Cold Start...............      YES
  Current Buffer Waits....        0     Table Suffix.............       NO
  WHM Buffer Waits........        0
  Number Buffer Compresses        0
  Percent Buffer Hits.....      N/A
```

Figure 80. CREGTSPD View

Usage Notes

- Main storage counts are 0 when auxiliary storage is active even if explicit writes are made to main storage.

Hyperlinks

The default hyperlinks defined for the CREGTSPD view are as follows:

Field	Data Displayed
Target Name	EZCREGN easy menu

CREVIEW View

To display information about the initialization parameters for active CICS regions, including the suffix of each region's system initialization table (SIT), issue the command

CREVIEW [*target*]

where

target Is the specific or generic name of a target CICS region.

The CREVIEW view appears, as shown in Figure 81.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CREVIEW==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====2
CMD Region   CICS    SMF  APPLID   SYS  Start     Start  SIT
--- Name---- Release ID            ID   Date      Time  Suffix
    CICSPRD1 0510    SYSC CICSPRD1 C51P 20MAR2001 04:46 00
    CICSPRD2 0520    SYSC CICSPRD2 C52P 20MAR2001 06:32 6$
```

Figure 81. CREVIEW View

Usage Notes

The CREVIEW view can be used as the starting point for reviewing a region's SIT parameters. Use the hyperlinks described below to display specific SIT parameters and their values.

Hyperlinks

The default hyperlinks defined for the CREVIEW view are as follows:

Field	Data Displayed
Region Name	EZCREV easy menu Each option on this menu provides a hyperlink to a CREVD*n* detail view, which displays a group of SIT parameters and their values.
SIT Suffix	CREVDX view This view is the first of three alphabetical lists of SIT parameter names; the other two are CREVDY and CREVDZ. Each field in each list provides a hyperlink to the CREVD*n* detail view that contains that SIT parameter.

For example, if you place the cursor on a CICS region name in the CREVIEW view and press Enter, the EZCREV view appears, as shown in Figure 82.

```
26MAR2001  12:08:32 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =CREVIEW==EZCREV==(ALL======*=======)26MAR2001=12:08:32====MVCICS===D====1
                                 CICS SIT Menu
     Target CICS region  ->  CICSPRD1
  . Application             +----------------------+  . Autoinstall
  . Basic Mapping Support   |   Place cursor on    |  . Data Interchange
  . Database                |    menu item and     |  . Dispatcher Functions
  . DL/I                    |     press Enter      |  . Dump
  . Transaction Backout     +----------------------+  . Exits
  . Extended Recovery                                 . FEPI
  . File                    . ISC and Multiregion     . Journaling
  . Keystroke Retrieval     . Languages               . Loading Programs
  . Miscellaneous           . Monitoring              . Long Fields
  . RDO File Control        . Security                . Signon
  . Special Tracing         . Standard Tracing        . Storage Management
  . Supervisor Calls        . System Initialization   . System Recovery
  . System Termination      . Temporary Storage       . Terminal and LU
  . Timer                   . Trace                   . Transient Data

  . Fields A-F              . Fields G-R              . Fields S-Z
```

Figure 82. EZCREV View

From EZCREV, you can select

- A category, such as Application. When you hyperlink from a category field, the detail view that contains that type of SIT parameters is displayed.
- An alphabetic grouping, such as Fields A-F. When you hyperlink from an alphabetic field, an alphabetic list of SIT parameter names is displayed, as shown in Figure 83.

```
09/23/1998 12:08:32 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =CREVIEW==CREVDX==(ALL======*=======)09/23/1998=12:08:32====MVCICS========1
 Target CICSPRD1
 A-F...          ABDUMP..   ADI.....   AIEXIT..   AILDELAY   AIQMAX..
 G-R...          AIRDELAY   AKPFREQ.   ALEXIT..   ALT.....   AMXT....
 S-Z...          APPLID..   ASZCON..   ASZRPL..   ASZSHR..   ASZTP...
                 ASZTSK..   AUTCONN.   AUXTR...   AUXTRSW.   BFP.....
                 BMS.....   CDSASZE.   CICSSVC.   CLSDSTP.   CLT.....
                 CMDPROT.   CMDSEC..   CMXT....   CMXTLIM.   COBOL2..
                 CONFDATA   CONFTXT.   CSCS....   CSDACC..   CSDBKUP.
                 CSDBUFND   CSDBUFNI   CSDDISP.   CSDDSN..   CSDFRLOG
                 CSDINTEG   CSDJID..   CSDLSRNO   CSDRECOV   CSDRLS..
                 CSDSTRNO   CWAKEY..   DAE.....   DATFORM.   DB2CONN.
                 DBCTLCON   DBP.....   DBUFSZ..   DCT.....   DDIR....
                 DFLTUSER   DIP.....   DISMACP.   DLDBRC..   DLI.....
                 DLIOLIM.   DLIRLM..   DLLPA...   DLMON...   DLTHRED.
                 DLXCPVR.   DMBPL...   DSALIM..   DSHIPIDL   DSHIPINT
                 DTB.....   DTRPGM..   DTRTRAN.   DUMP....   DUMPDS..
                 DUMPSW..   DURETRY.   ECDSASZE   ECSCS...   EDSALIM.
                 ENQPL...   EODI....   ERDSASZE   ERSCS...   ESMEXITS
                 EUDSASZE   EUSCS...   EXEC....   FCT.....   FEPI....
                 FLDSEP..   FLDSTRT.   FSSTAFF.   FTIMEOUT
```

Figure 83. CREVDX View

Note: This is the same view that appears when you hyperlink from the SIT Suffix field of CREVIEW.

From CREVDX (or either of the other two alphabetic lists), you can select a specific SIT parameter and hyperlink to the detail view that contains that parameter.

CREVD*n* Detail Views

To display the system initialization table (SIT) parameters for a CICS region, issue the command

CREVD*n* *target*

where

n Identifies a set of SIT parameters.

- **1** Application Considerations, Languages
- **2** Miscellaneous
- **3** Terminal and LU Management
- **4** DL/I, Database
- **5** Dynamic Transaction Backout, Extended Recovery Facility, TBP Exits
- **6** Keystroke Retrieval
- **7** Security, Sign-on
- **8** BMS, Journaling, File
- **9** Long Data
- **A** System Startup, System Termination
- **B** Autoinstall, Data Interchange
- **C** RDO File Control
- **D** Standard Trace, Special Trace
- **E** Storage Management
- **F** Dispatcher Functions, Timer
- **G** ISC and MRO, Supervisor Calls, Loading Programs
- **H** Monitoring, Trace
- **I** CICS WEB Interface
- **J** CICS 2.1.2 Miscellaneous
- **K** Temporary Storage, Transient Data
- **L** Dump
- **M** VTAM

target Is the name of the target CICS region.

Figure 84 on page 117 shows a sample CREVD1 view.

```
26MAR2001  10:00:39 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CREVD1============CICSPRD1=*========26MAR2001==10:00:39====MVCICS===D====1
  Target..................... CICSPRD1

 Parameter   Value   O           Description
 ---------  -------- - -------------------------------
                       Application Considerations
 CMDPROT..       YES     Command Protection Option
 CMDSEC...      ASIS     Global Command Security
 CWAKEY...      CICS Y   CWA Storage Key
 DISMACP..       YES     Disable MACRO Programming
 EXEC.....       N/A     Exec Interface Option
 INITPARM.  19632020 Y   Initial Parm Data
 LGNMSG...        NO     VTAM Logon Data Option
 OPERTIM..       120     WTO Timeout Interval
 TCTUAKEY.      CICS Y   TCT User Area Key
 TCTUALOC.     BELOW     TCT User Area Location

                       Languages
 COBOL2....      N/A     COBOL 2 Indicator
 PLI.......      N/A     PL/I Program Processing
 PLISHRE...      N/A     PL/I Shared Library Option
```

Figure 84. CREVD1 Detail View

Usage Notes

- Each CREVD*n* detail view presents one or more logical groupings of SIT parameters. As a group, the CREVD*n* views provide the complete list of SIT parameters.
- Each CREVD*n* detail view shows the name of the SIT parameter, its current value, and whether the original value was overridden by a SYSPARM or SYSIN change.

Hyperlinks

Some CREVD*n* detail views have default hyperlink fields defined that provide links from

- A storage address to a full-screen DUMP display of the associated data. An example of this type of hyperlink is the INITPARM value on the CREVDA view.
- A parameter whose data is too long to display to CREVD9, the Long Data view. An example of this type of hyperlink is the GMTEXT parameter on the CREVD3 view.

Chapter 6. Resource Views

This chapter describes the MAINVIEW for CICS resource views. These views provide a variety of information about the resources that are defined to your CICS regions. The information includes a resource's defined attributes, current state, and usage statistics.

Note: Much of the usage data presented in these views is based upon the statistics collected by CICS. Some of the counters are subject to being reset periodically, as described in the *Performance Guide* for your release of CICS.

In this chapter, the resource views are grouped by resource type, as follows:

- "Connection Views" on page 122
- "File Views" on page 132
- "Program Views" on page 140
- "TCP/IP Service Views" on page 145
- "Terminal Views" on page 150
- "Transaction Views" on page 158
- "Transaction Class Views" on page 165

Table 9 gives a brief description of each resource view and shows you where to find more information.

Table 9. MAINVIEW for CICS Resource Views

View Name	Description
CCONN	This tabular view displays general information about the connections defined to CICS. See page 122.
CCONND	This detail view displays information about a specific CICS connection. See page 125.
CCONND1	This detail view displays information about the usage statistics for a specific CICS connection. See page 126.
CCONNQ	This detail menu provides access to information about a specific CICS connection and related resources. See page 124.
CCONNZ	This summary view displays summarized information about the connections defined to CICS. See page 123.
CFILE	This tabular view displays general information about the files defined to CICS. See page 132.
CFILED	This detail view displays information about a specific CICS file. See page 135.
CFILED1	This detail view displays information about the I/O activity of a specific CICS file. See page 137.
CFILED2	This detail view displays information about the VSAM activity of a specific CICS file. See page 138.
CFILEQ	This detail menu provides access to information about a specific CICS file and related resources. See page 134.

Table 9. MAINVIEW for CICS Resource Views (continued)

View Name	Description
CFILEZ	This summary view displays summarized information about the files defined to CICS. See page 133.
CPROG	This tabular view displays general information about the programs defined to CICS. See page 140.
CPROGD	This detail view displays information about a specific CICS program. See page 142.
CPROGQ	This detail menu provides access to information about a specific CICS program and related resources. See page 142.
CPROGZ	This summary view displays summarized information about the programs defined to CICS. See page 141.
CSESS	This tabular view displays general information about the sessions defined to CICS. See page 128.
CSESSD	This detail view displays information about a specific CICS session. See page 129.
CSESSQ	This detail menu provides access to information about a specific CICS session and related resources. See page 129.
CSESSZ	This summary view displays summarized information about the sessions defined to CICS. See page 129.
CTCPSRV	This tabular view displays general information about the TCP/IP services defined to CICS. See page 145.
CTCPSRVD	This detail view displays information about a specific TCP/IP service. See page 148.
CTCPSRVQ	This detail menu provides access to information about a specific TCP/IP service and related resources. See page 147.
CTCPSRVZ	This summary view displays summarized information about the TCP/IP services defined to CICS. See page 146.
CTERM	This tabular view displays general information about the terminals defined to CICS. See page 150.
CTERMD	This detail view displays information about a specific CICS terminal. See page 153.
CTERMD1	This detail view displays information about the hardware attributes of a specific CICS terminal. See page 155.
CTERMD2	This detail view displays information about the screen properties of a specific CICS terminal. See page 156.
CTERMQ	This detail menu provides access to information about a specific CICS terminal and related resources. See page 152.
CTERMZ	This summary view displays summarized information about the terminals defined to CICS. See page 151.

Table 9. MAINVIEW for CICS Resource Views (continued)

View Name	Description
CTRAN	This tabular view displays general information about the transactions defined to CICS. See page 158.
CTRAND	This detail view displays information about a specific CICS transaction. See page 160.
CTRAND1	This detail view displays information about the usage statistics for a specific CICS transaction. See page 163.
CTRANQ	This detail menu provides access to information about a specific CICS transaction and related resources. See page 160.
CTRANZ	This summary view displays summarized information about the transactions defined to CICS. See page 159.
CTRNCLA	This tabular view displays general information about the transaction classes defined to CICS. See page 165.
CTRNCLAD	This detail view displays information about a specific CICS transaction class. See page 168.
CTRNCLAQ	This detail menu provides access to information about a specific CICS transaction class and related resources. See page 167.
CTRNCLAZ	This summary view displays summarized information about the transaction classes defined to CICS. See page 167.

Connection Views

These views report on the connections between your CICS regions and the sessions that are using those connections.

CCONN View

To display general information about the connections defined to CICS, issue the command

CCONN [*target* [*connection_ID*]]

where

target Is the specific or generic name of a target CICS region.

connection_ID Is the specific or generic ID of a connection.

The CCONN view appears, as shown in Figure 85.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CCONN============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====9
CMD Conn  Target   Connect   Connect  Queued Queued Func   Connect   Access
---  ID            Status     Type    Allocs  AIDs  Ships  Protocol  Method
    IMSA  CICSPRD1 NOTAPPLIC LU61          0      0      0 LU61      VTAM
    JH21  CICSPRD2 RELEASED  MRO           0      0      0 NOTAPPLIC IRC
    JH33  CICSPRD2 RELEASED  MRO           0      0      0 NOTAPPLIC XM
    J53X  CICSPRD1 RELEASED  LU62          0      0      0 APPC      VTAM
    S21C  CICSPRD1 NOTAPPLIC LU61          0      0      0 LU61      VTAM
    TOR1  CICSPRD1 NOTAPPLIC INDIRECT      0      0      0 NOTAPPLIC INDIRECT
    IMSB  CICSPRD2 ACQUIRED  LU62          0      0      0 APPC      VTAM
    J52I  CICSPRD2 RELEASED  MRO           0      0      0 NOTAPPLIC IRC
    WB41  CICSPRD2 RELEASED  MRO           0      0      0 NOTAPPLIC IRC
```

Figure 85. CCONN View

Actions

The CCONN view supports the following line command actions:

Line Command	Description
ACQ	Acquires a connection.
INS	Puts a connection in service.
NOT	Sets the status of a connection to not pending.
OUT	Takes a connection out of service.
PUR	Purges a connection.
REL	Releases a connection.

Hyperlinks

The default hyperlinks defined for the CCONN view are as follows:

Field	Data Displayed
Conn ID	CCONNQ detail menu for the selected connection
Target	EZCREGN view for the selected CICS region
Connect Status	CCONND detail view for the selected connection
Connect Type	CSESS view for the selected connection
Queued Allocs	CCONND1 detail view for the selected connection
Queued AIDs	CAIDS view The value in the Queued AIDs field must be greater than 0; otherwise, the hyperlink is not active.

Related Views

The following view is similar to the CCONN view. The information it provides is summarized.

View	Description
CCONNZ	A summary view of the connections defined to CICS The data is summarized by connection ID. The Count field shows how many connections are represented by each line of summary data. You can hyperlink from the Count field to the CCONN view to expand a line of summary data.

CCONNQ Detail Menu

To display a menu of detailed information about a specific CICS connection and related resources, hyperlink from the **Conn ID** field of the CCONN view.

The CCONNQ detail menu appears, as shown in Figure 86.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CCONN====CCONNQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
        CICS Connection Detail Menu

    CICS Region -------------------------->         CICSPRD1
    CICS Connection ID-------------------->             IMSA

           Connection Detail Forms                            Other Menus
  . Statistics and Attributes                               > Target Menu
  . Usage Statistics                                        > Fullscreen Menu





               Related Views
  . Target Region Analysis
  . Sessions Using This Connection

  . Aids In Connection Chain                              0
```

Figure 86. CCONNQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CCONNQ detail menu are as follows:

Field	Data Displayed
Statistics and Attributes	CCONND detail view
Usage Statistics	CCONND1 detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this connection is defined
Sessions Using This Connection	CSESS view for the sessions associated with this connection
Aids In Connection Chain	CAIDS view The value in the Aids In Connection Chain field must be greater than 0; otherwise, the hyperlink is not active.

CCONND Detail View

To display detailed information about the attributes and status of a specific CICS connection, perform one of the following actions:

- Hyperlink from
  - the **Connect Status** field of the CCONN view
  - the **Statistics and Attributes** field of the CCONNQ detail menu
- Issue the command

  CCONND ***target connection_ID***

  where

  target Is the name of the target CICS region.

  connection_ID Is the ID of the connection.

The CCONND view appears, as shown in Figure 87.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CCONN====CCONND==(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target................    CICSPRD2
    Connection ID.........        J53X

    Connection...........             Remote/Indirect Data...
     Type................        LU62  Net Name..............  CVCDJH53
     Protocol............        APPC  Link System Name......       N/A
     Status..............    RELEASED  Remote Name...........       N/A
     EXCI Type...........   NOTAPPLIC  Remote System Net Name       N/A
                                       Remote System Name....       N/A
    Access Method........        VTAM
    Service Status.......   INSERVICE APPC Data..............
    Autoconnect Type......     ALLCONN  Generic Resource Name.       N/A
                                        Member Name...........       N/A
    Exit Tracing......... NOEXITTRACE  XLN Status............  XNOTDONE
    ZCP Trace Status......  NOZCPTRACE
                                       Links to other forms...
    Maximum Queue Time....           0 .Usage Statistics......
    Allocate Queue Limit..           0
```

Figure 87. CCONND View

Actions

The CCONND detail view supports the same line command actions as the “CCONN View” on page 122.

Hyperlinks

The default hyperlinks defined for the CCONND view are as follows:

Field	Data Displayed
Target	EZCREGN view
Connection ID	CCONNQ detail menu
Usage Statistics	CCONND1 detail view

CCONND1 Detail View

To display detailed information about the usage statistics for a specific CICS connection, perform one of the following actions:

- Hyperlink from
  - the **Queued Allocs** field of the CCONN view
  - the **Usage Statistics** field of the CCONNQ detail menu
- Issue the command

  CCONND1 ***target connection_ID***

  where

target	Is the name of the target CICS region.
connection_ID	Is the ID of the connection.

The CCONND1 view appears, as shown in Figure 88 on page 127.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CCONN====CCONND1=(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target................... CICSPRD2
    Connection ID............     J53X

    Send Sessions............      N/A Bids.....................
    Receive Sessions.........      N/A  Current................        0
                                        High Water Mark.........        0
    Primaries................           Total...................        0
     Current.................        0
     High Water Mark.........        0 Allocates................
     ATIs Satisfied..........        0  Total...................        0
                                        Current in Queue........        0
    Secondaries..............           Queue High Water Mark...        0
     Current.................        0  Failures for Connection.        0
     High Water Mark.........        0  Failures for Session....        0
     ATIs Satisfied..........        0  Queue Purges............        0
                                        Rejects for Queue Limit.        0
    AIDS in Chain............        0  Purges for Queue Timeout        0
    Generic AIDS in Chain....        0
                                       Maximum Queue Time.......        0
    Function Ships...........          Allocate Queue Limit.....        0
     File Control............        0
     Interval Control........        0 XZIQUE Global User Exit..
     Transient Data..........        0  Allocate Rejects........        0
     Temporary Storage.......        0  Allocate Purges.........        0
     DL/I....................        0  Queue Purges............        0
     Program Control.........      N/A

    Terminal Sharing Requests        0
```

Figure 88. CCONND1 View

Actions

The CCONND1 detail view supports the same line command actions as the “CCONN View” on page 122.

Hyperlinks

The default hyperlinks defined for the CCONND1 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Connection ID	CCONNQ detail menu
AIDS in Chain	CAIDS view The value in the AIDS in Chain field must be greater than 0; otherwise, the hyperlink is not active.

CSESS View

To display general information about the sessions defined to CICS, issue the command

CSESS [*target* [*session_ID*]]

where

target Is the specific or generic name of a target CICS region.

session_ID Is the specific or generic ID of a session.

The CSESS view appears, as shown in Figure 89.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CSESS============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====7
CMD Session  Conn  Target   Total    Error    Input    Output   Error
---   ID      ID            Trans    Trans   Messages Messages Messages
    <AAB     JH33  CICSPRD1       0        0        0        0        0
    <AAB     JH33  CICSPRD2       1        0        3        3        0
    <1       JH51  CICSPRD2       0        0        0        0        0
    $1       J52M  CICSPRD1       0        0        0        0        0
    $1       J53M  CICSPRD2       0        0        0        0        0
    -AAC     WB52  CICSPRD1       0        0        0        0        0
    -AAC     WB52  CICSPRD2       0        0        0        0        0
```

Figure 89. CSESS View

Actions

The CSESS view supports the following line command actions:

Line Command	Description
ACQ	Acquires a session.
CAN	Cancels the task associated with a session.
PUR	Purges the task associated with a session.
REL	Releases a session.

Hyperlinks

The default hyperlinks defined for the CSESS view are as follows:

Field	Data Displayed
Session ID	CSESSQ detail menu for the selected session
Conn ID	CCONND detail view for the selected connection
Target	EZCREGN view for the selected CICS region
Total Trans	CSESSD detail view for the selected session

Related Views

The following view is similar to the CSESS view. The information it provides is summarized.

View	Description
CSESSZ	A summary view of the sessions defined to CICS The data is summarized by connection name. The Count field shows how many sessions are represented by each line of summary data. You can hyperlink from the Count field to the CSESS view to expand a line of summary data.

CSESSQ Detail Menu

To display a menu of detailed information about a specific CICS session and related resources, hyperlink from the **Session ID** field of the CSESS view.

The CSESSQ detail menu appears, as shown in Figure 90.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CSESS====CSESSQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
          CICS Session Detail Menu

    CICS Region ------------------------->         CICSPRD1
    CICS Session ID---------------------->             <AAB

             Session Detail Forms                               Other Menus
  . Attributes and Usage Statistics                            > Target Menu
                                                               > Fullscreen Menu




                Related Views
  . Target Region Analysis

  . Related Connection Details                          JH33
```

Figure 90. CSESSQ Detail Menu

Hyperlinks

The default hyperlinks defined for this view are as follows:

Field	Data Displayed
Attributes and Usage Statistics	CSESSD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this session is defined
Related Connection Details	CCONND view for the connection associated with this session

CSESSD Detail View

To display detailed information about a specific CICS session, perform one of the following actions:

- Hyperlink from
  - The **Total Trans** field of the CSESS view
  - The **Attributes and Usage Statistics** field of the CSESSQ detail menu
- Issue the command

  CSESSD ***target session_ID***

  where

  target Is the name of the target CICS region.

  session_ID Is the ID of the session.

The CSESSD view appears, as shown in Figure 91 on page 131.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CSESS====CSESSD==(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target..................    CICSPRD2
    Session ID..............        <AAB

    Connection ID...........        JH33 Send Count...............     N/A
    Task ID.................         N/A Receive Count...........     N/A
    Transaction ID..........         N/A
                                         Messages................
    Session InService.......          NO  Incoming...............       0
    Session Priority........           0  Outgoing...............       0
    Autoconnect.............         ALL  In Error...............       0
    Link Protocol...........        APPC
    CICS ID for IMS.........         N/A Transactions............
                                          Total..................       0
    Characteristics.........              In Error...............       0
     Eligible for Release....          NO
     Eligible for Disconnect.          NO Buffer Sizes............
     Chain Assembly Requested         YES  Send Buffer............    4096
                                           Receive Buffer..........    4096
    XRF.....................              I/O Area................    4096
     Recovery Option.........  SYSDEFAULT  User Area...............       0
     Recovery Notification...         N/A
                                         User Signon ID..........     N/A
    LU6.2 Mode..............             Operator Priority........     N/A
     Group Name..............    SNASVCMG
     Max. Sess. in Group.....           1 Network Error Pgm. TClass       0
     Max. Contention Winners.           1
```

Figure 91. CSESSD View

Actions

The CSESSD detail view supports the same line command actions as the “CSESS View” on page 128.

Hyperlinks

The default hyperlinks defined for the CSESSD view are as follows:

Field	Data Displayed
Target	EZCREGN view
Session ID	CSESSQ detail menu
Connection ID	CCONND detail view

File Views

These views provide a variety of information about all types of CICS files.

CFILE View

To display general information about the files defined to CICS, issue the command

CFILE [*target* [*file_name*]]

where

target Is the specific or generic name of a target CICS region.

file_name Is the specific or generic name of a file.

The CFILE view appears, as shown in Figure 92.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFILE============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====5
CMD File     Target   Open         Enable     Acc   LSR  Total Data Set Name
--- Name              Status       Status    Meth   ID    I/O
    CMRFILA  CICSPRD2 CLOSED       N/A       REMOTE N/A      0 N/A
    CMRFILR  CICSPRD2 CLOSED       ENABLED   VSAM     3      0 CICS330.CICS330
    CMRTVSAM CICSPRD2 OPEN         ENABLED   VSAM     1      0 N/A
    CMRVSDL  CICSPRD2 CLOSED       ENABLED   VSAM     1      0 CICS330.CICS330
    DFHCSD   CICSPRD2 CLOSED       DISABLED  VSAM     1      0 PRD2.CICS510.DE
```

Figure 92. CFILE View

Actions

The CFILE view supports the following line command actions:

Line Command	Description
CLO	Closes a file.
DIS	Disables a file.
ENA	Enables a file.
FRE	Dynamically deallocates a file.
OPE	Opens a file.

Hyperlinks

The default hyperlinks defined for the CFILE view are as follows:

Field	Data Displayed
File Name	CFILEQ detail menu for the selected file

Field	Data Displayed
Target	EZCREGN view for the selected CICS region
Open Status	CFILED detail view for the selected file
Acc Meth	CFILED2 detail view for the selected VSAM file The value in the Acc Meth field must be VSAM; otherwise, the hyperlink is not active.
Total I/O	CFILED1 detail view for the selected file

Related Views

The following view is similar to the CFILE view. The information it provides is summarized.

View	Description
CFILEZ	A summary view of the files defined to CICS The data is summarized by file name. The Count field shows how many files are represented by each line of summary data. You can hyperlink from the Count field to the CFILE view to expand a line of summary data.

CFILEQ Detail Menu

To display a menu of detailed information about a specific CICS file and related resources, hyperlink from the **File Name** field of the CFILE view.

The CFILEQ detail menu appears, as shown in Figure 93.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CFILE====CFILEQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
           CICS File Detail Menu

    CICS Region ------------------------->         CICSPRD1
    CICS File Name---------------------->         CMRTVSAM

             File Detail Forms                                   Other Menus
  . File Attributes                                            > Target Menu
  . File I/O Statistics                                        > Fullscreen Menu
  . File VSAM Cluster Statistics




               Related Views
  . Target Region Analysis
  . Current Tasks Using This File

  . LSR Pool Statistics                                     1
  . Data Table Statistics                                 N/A

  . Journal Analysis
  . TIOT Entries
  . Volume Activity
```

Figure 93. CFILEQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CFILEQ detail menu are as follows:

Field	Data Displayed
File Attributes	CFILED detail view
File I/O Statistics	CFILED1 detail view
File VSAM Cluster Statistics	CFILED2 detail view The file must be a VSAM file; otherwise, the hyperlink is not active.
Target Region Analysis	CREGDET*n* detail view for the CICS region where this file is defined
Current Tasks Using This File	TASKFIL view for the tasks associated with this file

Field	Data Displayed
LSR Pool Statistics	SHARE full-screen display The value in the LSR Pool Statistics field must be greater than 0; otherwise, the hyperlink is not active.
Data Table Statistics	DATATABL full-screen display The file must be a data table; otherwise, the hyperlink is not active.
Journal Analysis	JOURNAL full-screen display
TIOT Entries	TIOT full-screen display
Volume Activity	VOLUMES full-screen display

CFILED Detail View

To display detailed information about the attributes and status of a specific CICS file, perform one of the following actions:

- Hyperlink from
  - the **Open Status** field of the CFILE view
  - the **File Attributes** field of the CFILEQ detail menu
- Issue the command

  CFILED ***target file_name***

  where

  target Is the name of the target CICS region.

  file_name Is the name of the file.

The CFILED view appears, as shown in Figure 94 on page 136.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFILE====CFILED==(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target.............     CICSPRD2
    File Name..........     CMRTVSAM

    Enable Status.......      ENABLED Remote Name.............       N/A
    Open Status.........         OPEN Remote System............       N/A

    Access Method.......         VSAM Open Time................  07:59:19
    RLS Access..........           NO

    Data Set Type.......         KSDS Table Type...............  NOTTABLE
    Data Set Disposition        SHARE Table Name...............       N/A
                                      Table Pool................       N/A
    Record Format.......     VARBLOCK Update Model.............       N/A
    Record Length.......          200 CF Load Type.............       N/A
    Key Position........            0 Maximum Table Records....         0
    Key Length..........            4
                                      BDAM Specifics..........
    Browse Valid........          YES   Exclusive Control.....        N/A
    Read Valid..........          YES   Relative Addressing...        N/A
    Update Valid........          YES   Block Key Length......        N/A
    Add Valid...........          YES   Block Size............        N/A
    Delete Valid........          YES
                                      VSAM Object Type........       BASE
    Read Integrity......  UNCOMMITTED
    Recovery............           NO
    Forward Recovery....           NO
                                      Links to other forms....
    LSR Pool ID.........            1 .I/O Statistics.........
    Journal ID..........            0 .VSAM Cluster Statistics
```

Figure 94. CFILED View

Actions

The CFILED detail view supports the same line command actions as the “CFILE View” on page 132.

Hyperlinks

The default hyperlinks defined for the CFILED view are as follows:

Field	Data Displayed
Target	EZCREGN view
File Name	CFILEQ detail menu
I/O Statistics	CFILED1 detail view
VSAM Cluster Statistics	CFILED2 detail view The file must be a VSAM file; otherwise, the hyperlink is not active.

CFILED1 I/O Statistics Detail View

To display detailed information about the I/O activity of a specific CICS file, perform one of the following actions:

- Hyperlink from
  - the **Total I/O** field of the CFILE view
  - the **I/O Statistics** field of the CFILEQ or CFILED view
- Issue the command

  CFILED1 ***target file_name***

  where

  target Is the name of the target CICS region.

  file_name Is the name of the file.

The CFILED1 view appears, as shown in Figure 95.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFILE====CFILED1=(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target................... CICSPRD2
    File Name................ CMRTVSAM

    I/O Statistics...........          String Statistics......
      Total I/O Count........      320   VSAM Strings.........        1
      Read Count.............        0   Add/Update Strings...        1
      Read for Update Count..       10   Active Strings.......        1
      Browse Count...........      101   Current String Waits.        0
      Browse for Update Count        0   Total String Waits...        0
      Update Count...........       10   String Wait HWM......        1
      Add Count..............      100   Max String Wait ECB..  WAITING
      Delete Count...........       99   Pseudo Max String ECB  WAITING

    Buffer Statistics........
      Current Buffer Wait....        0
      Total Buffer Wait......        0
      Buffer Wait HWM........        0
      Buffer Wait ECB........   POSTED
```

Figure 95. CFILED1 View

Actions

The CFILED1 detail view supports the same line command actions as the “CFILE View” on page 132.

Hyperlinks

The default hyperlinks defined for the CFILED1 view are as follows:

Field	Data Displayed
Target	EZCREGN view
File Name	CFILEQ detail menu

CFILED2 VSAM Statistics Detail View

To display detailed information about the VSAM activity of a specific CICS file, perform one of the following actions:

- Hyperlink from
  - the **Acc Meth** field of the CFILE view
  - the **VSAM Cluster Statistics** field of the CFILEQ or CFILED view
- Issue the command

  CFILED2 ***target file_name***

  where

target	Is the name of the target CICS region.
file_name	Is the name of the file.

The CFILED2 view appears, as shown in Figure 96 on page 139.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CFILE====CFILED2=(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target................. CICSPRD2
    File Name............... CMRTVSAM

    Cluster Information.....          ACB Open...............      YES DSN.....
      Data Set Type.........     KSDS Open Return Code (Hex).       00 Base DSN
      Record Format......... VARBLOCK
                                        Data Information.......
      Imbed Option..........       NO   Key Position.........        0
      Spanned Records.......       NO   Key Length...........        4
      Replicate Option......       NO   Maximum Record Size..      200
      Key Ranges In Use.....       NO
      Write Check Required..       NO   Control Interval Size     1024
                                        Free Bytes / CI......        0
      First Volume Serial...   BAB328   % Free Space / CI....        0
      Second Volume Serial..   BAB328   Total CI Splits......        0
      Third Volume Serial...      N/A
                                        CI's / Control Area..      165
    Index Information.......            Free CI's / CA.......        0
      Number of Index Levels        1   % Free Space / CA....        0
                                        Total CA Splits......        0
      Control Interval Size.     1536
      Total CI Splits.......        0   Available Space......   159744
                                        Buffers..............        1
      CI's / Control Area...       26   Extents..............        1
      Total CA Splits.......        0   Records..............       90

      Available Space.......    38400   Reads................        0
      Buffers...............        1   Updates..............        0
      Extents...............        1   Adds.................        0
      Records...............        1   Deletes..............        0
                                        EXCPS................        0
      EXCPS.................      173
```

Figure 96. CFILED2 View

Usage Notes

The CFILED2 view contains valid data only when the file is a VSAM file that has been opened.

Actions

The CFILED2 detail view supports the same line command actions as the “CFILE View” on page 132.

Hyperlinks

The default hyperlinks defined for the CFILED2 view are as follows:

Field	Data Displayed
Target	EZCREGN view
File Name	CFILEQ detail menu

Program Views

These views provide a variety of data about CICS programs, map sets, and partition sets.

CPROG View

To display general information about the programs defined to CICS, issue the command

CPROG [*target* [*program_name*]]

where

target Is the specific or generic name of a target CICS region.

program_name Is the specific or generic name of a program.

The CPROG view appears, as shown in Figure 97.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CPROG============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====7
CMD Program  Target   Ena Usage Cur Fetch Program Prog   Prog  Rpl Exec CEDF
---   Name               Count Use Count Status  Lang   Att   Num Key
    CAENFTST CICSPRD2 ENA     0   0     0 UNUSED  ASSEMB REUSA N/A USER YES
    CAUCAFBE CICSPRD2 ENA     0   0     0 UNUSED  ASSEMB REUSA N/A CICS NO
    CEEQMATH CICSPRD2 ENA     0   0     0 AUNUSED NOTDEF REUSA N/A USER YES
    CMRCMPX6 CICSPRD2 ENA     2   2     1 LOADED  ASSEMB RESID   2 CICS NO
    DFHAPAT  CICSPRD2 ENA    17   6     1 LOADED  ASSEMB RESID   0 CICS NO
    DFHDLRP  CICSPRD2 ENA     1   0     1 AUTOINS ASSEMB REUSA   0 CICS NO
    DFHRCEX  CICSPRD2 ENA     1   0     1 LOCATED ASSEMB TRANS   0 CICS NO
```

Figure 97. CPROG View

Actions

The CPROG view supports the following line command actions:

Line Command	Description
CKY	Sets the program execution key to CICS.
DIS	Disables a program.
ENA	Enables a program.
LOA	Loads a program.
NEW	Loads a new copy of a program when all transactions currently using the program are complete.
UKY	Sets the program execution key to USER.
UNL	Unloads a program.

Hyperlinks

The default hyperlinks defined for the CPROG view are as follows:

Field	Data Displayed
Program Name	CPROGQ detail menu for the selected program
Target	EZCREGN view for the selected CICS region
Ena	CPROGD detail view for the selected program

Related Views

The following view is similar to the CPROG view. The information it provides is summarized.

View	Description
CPROGZ	A summary view of the programs defined to CICS The data is summarized by program name. The Count field shows how many programs are represented by each line of summary data. You can hyperlink from the Count field to the CPROG view to expand a line of summary data.

CPROGQ Detail Menu

To display a menu of detailed information about a specific CICS program and related resources, hyperlink from the **Program Name** field of the CPROG view.

The CPROGQ detail menu appears, as shown in Figure 98.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CPROG====CPROGQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
          CICS Program Detail Menu

    CICS Region ----------------------->         CICSPRD2
    CICS Program Name----------------->         CAENFTST

            Program Detail Forms                                Other Menus
  . Program Attributes                                        > Target Menu
                                                              > Fullscreen Menu









               Related Views
  . Target Region Analysis
  . Current Tasks Executing This Program
  . Transactions Using This Program
```

Figure 98. CPROGQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CPROGQ detail menu are as follows:

Field	Data Displayed
Program Attributes	CPROGD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this program is defined
Current Tasks Executing This Program	TASK view for the tasks associated with this program
Transactions Using This Program	CTRAN view for the transactions associated with this program

CPROGD Detail View

To display detailed information about a specific CICS program, perform one of the following actions:

- Hyperlink from
  - the **Ena** field of the CPROG view
  - the **Program Attributes** field of the CPROGQ detail menu
- Issue the command

  CPROGD ***target program_name***

  where

  target Is the name of the target CICS region.

  program_name Is the name of the program.

The CPROGD view appears, as shown in Figure 99.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CPROG====CPROGD==(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target...................     CICSPRD2
    Module Name..............        CAENF
    Module Type..............      PROGRAM Enabled/Disabled     ENABLED JAVA C
    Language.................    ASSEMBLER Status..........      UNUSED
    Execution Set............      FULLAPI Attribute.......    REUSABLE
    Execution Key............         USER LPA Status......          N/A
    Data Location............        BELOW RPL Number......          N/A
    Share Status.............      PRIVATE Current Copy....
    CEDF Status..............          YES   Location......          N/A
    Hold Status..............           NO   Load Address..          N/A
    Threadsafe...............          N/A   Entry Address.          N/A
                                                Length........
    JAVA Runtime.............          N/A
    JAVA Debug Mode..........          N/A Counts..........
                                                Usage.........            0
    Dynamic Routing..........          N/A   Current Use...            0
    Remote Program Name......                  Fetch.........            0
    Remote System Name.......                  New Copy......            0
    Remote Mirror Transaction                  Remove........            0
                                            Fetch Time......     00:00:00

                                            NewCopy Required  NOTREQUIRED
```

Figure 99. CPROGD View

Actions

The CPROGD detail view supports the same line command actions as the “CPROG View” on page 140.

Hyperlinks

The default hyperlinks defined for the CPROGD view are as follows:

Field	Data Displayed
Target	EZCREGN view
Module Name	CPROGQ detail menu
Load Address	DUMP full-screen display The value in the Load Address field must be a valid address; otherwise, the hyperlink is not active.
Entry Address	DUMP full-screen display The value in the Entry Address field must be a valid address; otherwise, the hyperlink is not active

TCP/IP Service Views

These views report on TCP/IP services that are either defined to or installed on your CICS regions.

CTCPSRV View

To display general information about the TCP/IP services defined to CICS, issue the command

CTCPSRV [*target* [*service_ID*]]

where

target Is the specific or generic name of a target CICS region.

service_ID Is the specific or generic ID of a TCP/IP service.

The CTCPSRV view appears, as shown in Figure 100.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTCPSRV==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====8
CMD Service  Target     Open    Prot   I/P Address   Port Bcklg User Rep   WLM
---    ID              Status                                Max   Module    Stat
    TCPB53C CICSPRD1 CLOSING    N/A                  3004     5 DFHWBADX N/A
    TCPD530 CICSPRD1 CLOSED     HTTP                 3006     5 DFHWBADX N/A
    TCPJH53 CICSPRD1 CLOSED     N/A                  3009     5 DFHWBADX N/A
    TCPJ530 CICSPRD1 CLOSED     HTTP                 3003     5 DFHWBADX N/A
    TCPP53C CICSPRD1 CLOSED     N/A                  3002     5 DFHWBADX N/A
    TCPQ53C CICSPRD1 OPEN       N/A  172.017.008.092 3013     5 DFHWBADX N/A
    TCPS53C CICSPRD1 CLOSED     N/A                  3012     5 DFHWBADX N/A
    TCPW53C CICSPRD1 CLOSED     HTTP                 3001     5 DFHWBADX N/A
```

Figure 100. CTCPSRV View

Usage Notes

The CTCPSRV view can be used to review and change the status of TCP/IP services that are using CICS internal sockets.

Actions

The CTCPSRV view supports the following line command actions:

Line Command	Description
CLO	Closes a TCP/IP service.
IMM	Immediately closes a TCP/IP service.
OPE	Opens a TCP/IP service.

Line Command	Description
SET	Changes the value in a modifiable field to the new value you type in that field. In TCP/IP service views, the following fields are modifiable: • Open Status • Bcklg Max (Maximum Backlog) • User Rep Module (User Replaceable Module) • WLM DNS Status (WLM DNS Group - Status) **Note:** Be sure the field contains exactly the value you want before pressing Enter to issue the SET command. You must clear the field of any other data to prevent it from being passed as part of the new value.

Hyperlinks

The default hyperlinks defined for the CTCPSRV view are as follows:

Field	Data Displayed
Service ID	CTCPSRVQ detail menu for the selected TCP/IP service
Target	EZCREGN view for the selected CICS region
Open Status	CTCPSRVD detail view for the selected TCP/IP service

Related Views

The following view is similar to the CTCPSRV view. The information it provides is summarized.

View	Description
CTCPSRVZ	A summary view of the TCP/IP services defined to CICS The data is summarized by CICS region. The Count field shows how many TCP/IP services are represented by each line of summary data. You can hyperlink from the Count field to the CTCPSRV view to expand a line of summary data.

CTCPSRVQ Detail Menu

To display a menu of detailed information about a specific TCP/IP service and related resources, hyperlink from the **Service ID** field of the CTCPSRV view.

The CTCPSRVQ detail menu appears, as shown in Figure 101.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CTCPSRV==CTCPSRVQ=(ALL======CICSPRD1)18MAR2001==12:06:40====MVCICS===D===1
      CICS TCP/IP Service Detail Menu

    CICS Region ------------------------->         CICSPRD1
    CICS TCP/IP Service Name------------->          TCPQ53C

       TCP/IP Service Detail Forms                             Other Menus
  . Attributes and Statistics                                > Target Menu
                                                             > Fullscreen Menu




               Related Views
  . Target Region Analysis

  . Connection Data for Local IP *           172.017.008.092
  . Port Response for Local Port *                      3013
  . Conn Response for Local Port *

     (*) Requires MAINVIEW for IP
```

Figure 101. CTCPSRVQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CTCPSRVQ detail menu are as follows:

Field	Data Displayed
Attributes and Statistics	CTCPSRVD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this TCP/IP service is defined
Connection Data for Local IP	MAINVIEW for IP TCPCONS view for the specified IP address
Port Response for Local Port	MAINVIEW for IP PORTRSPP view for the specified port
Connection Response for Local Port	MAINVIEW for IP CONNRESP view for the specified port

Note: MAINVIEW for IP must be available at your site in order for the last three hyperlinks on CTCPSRVQ to be active.

CTCPSRVD Detail View

To display detailed information about a specific TCP/IP service, perform one of the following actions:

- Hyperlink from
  - the **Open Status** field of the CTCPSRV view
  - the **Attributes and Statistics** field of the CTCPSRVQ detail menu
- Issue the command

  CTCPSRVD ***target service_ID***

  where

  target Is the name of the target CICS region.

  service_ID Is the ID of the TCP/IP service.

The CTCPSRVD view appears, as shown in Figure 102.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ----------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTCPSRV==CTCPSRVD(ALL======CICSPRD1)18MAR2001==12:06:40====MVCICS===D=====1
    Target................        CICSPRD1
    Service ID............         TCPQ53C

    IP Address............     172.17.8.92 Statistics..........
    Port..................            3013
                                             Current Connections.
    Open Status...........            OPEN  Peak Connections....
                                             Transaction Attaches
    Protocol..............             N/A
    SSL Type..............           NOSSL  Receive Data........
    Authentication........             N/A   Requests...........
    Maximum Backlog.......               5   Bytes..............
                                             Avg Bytes/Request..
    Close Timeout
     Option...........                WAIT  Send Data...........
     Period...........            00:00:00   Requests...........
                                             Bytes..............
    Start Transaction.....           CWXN    Avg Bytes/Request..
    User Rplaceable Module       DFHWBADX
    TSQueue Prefix........                   Current Open........
                                             Date...............  09MAR2001
    WLM DNS Group.........                   Time...............   06:01:27
     Name.................            N/A
     Status...............            N/A
     Critical Option......            N/A
```

Figure 102. CTCPSRVD View

Actions

The CTCPSRVD detail view supports the same line command actions as the “CTCPSRV View” on page 145.

Hyperlinks

The default hyperlinks defined for the CTCPSRVD view are as follows:

Field	**Data Displayed**
Target	EZCREGN view
Service Name	CTCPSRVQ detail menu

Terminal Views

These views report on terminal devices that are either defined to or installed on your CICS regions.

CTERM View

To display general information about the terminals defined to CICS, issue the command

CTERM [*target* [*terminal_ID*]]

where

target Is the specific or generic name of a target CICS region.

terminal_ID Is the specific or generic ID of a terminal.

The CTERM view appears, as shown in Figure 103.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTERM============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D==113
CMD Term Target   Terminal  Access      User   Total Total Stg Tran   VTAM
---  ID            Status   Method       ID    Trans  IO   Vio  ID  Netname
    AAAA CICSPRD2 RELEASED  VTAM                   0     0   0      NETAAAA
    ABCD CICSPRD1 RELEASED  VTAM                   0     0   0      ABCD
    B06D CICSPRD2 RELEASED  VTAM                   0     0   0      N/A
    B067 CICSPRD2 RELEASED  VTAM                   0     0   0      NETB067
    CERR CICSPRD1 N/A       CONSOLE                0     0   0      N/A
    CJCL CICSPRD2 N/A       CONSOLE                0     0   0      N/A
    CNSL CICSPRD2 N/A       CONSOLE                0     0   0      N/A
    GWJ1 CICSPRD1 N/A       CONSOLE                0     0   0      N/A
    GWJ1 CICSPRD2 N/A       CONSOLE                0     0   0      N/A
```

Figure 103. CTERM View

Usage Notes

The CTERM view can be used to review and change the status of associated terminals, lines, control units, and VTAM nodes.

Actions

The CTERM view supports the following line command actions:

Line Command	Description
ACQ	Acquires a terminal.
CAN	Cancels the task associated with a terminal.
INS	Puts a terminal in service.
LBL	Puts a BTAM line in service.
OUT	Takes a terminal out of service.

Line Command	Description
PUR	Purges the task associated with a terminal.
REL	Releases a terminal.
XBL	Takes a BTAM line out of service.
YBC	Puts a BTAM control unit in service.
ZBC	Takes a BTAM control unit out of service.

Hyperlinks

The default hyperlinks defined for the CTERM view are as follows:

Field	Data Displayed
Term ID	CTERMQ detail menu for the selected terminal
Target	EZCREGN view for the selected CICS region
Terminal Status	CTERMD detail view for the selected terminal
Access Method	CTERMD2 detail view for the selected terminal
VTAM Netname	MAINVIEW for VTAM LURES view MAINVIEW for VTAM must be available at your site; otherwise, the hyperlink is not active.

Related Views

The following view is similar to the CTERM view. The information it provides is summarized.

View	Description
CTERMZ	A summary view of the terminals defined to CICS The data is summarized by terminal ID. The Count field shows how many terminals are represented by each line of summary data. You can hyperlink from the Count field to the CTERM view to expand a line of summary data.

CTERMQ Detail Menu

To display a menu of detailed information about a specific CICS terminal and related resources, hyperlink from the **Term ID** field of the CTERM view.

The CTERMQ detail menu appears, as shown in Figure 104.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CTERM====CTERMQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
         CICS Terminal Detail Menu

    CICS Region ------------------------->         CICSPRD2
    CICS Terminal ID--------------------->             B067

           Terminal Detail Forms                                Other Menus
  . Statistics                                                > Target Menu
  . Attributes                                                > Fullscreen Menu
  . Properties




               Related Views
  . Target Region Analysis

  . Currently Executing Task Details
  . Current Transaction Details
  . Next Transaction Details

  . Response for VTAM LU            *              TCPBL094

     (*) Requires MAINVIEW for VTAM
```

Figure 104. CTERMQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CTERMQ detail menu are as follows:

Field	Data Displayed
Statistics	CTERMD detail view
Attributes	CTERMD1 detail view
Properties	CTERMD2 detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this terminal is defined
Currently Executing Task Details	TASKD detail view for the task that is executing on this terminal
Current Transaction Details	CTRAND detail view for the transaction currently associated with this terminal

Field	Data Displayed
Next Transaction Details	CTRAND detail view for the transaction that will be invoked next
Response for VTAM LU	MAINVIEW for VTAM LURES view MAINVIEW for VTAM must be available at your site; otherwise, the hyperlink is not active.

CTERMD Detail View

To display detailed information about the status and usage of a specific CICS terminal, perform one of the following actions:

- Hyperlink from
  - the **Terminal Status** field of the CTERM view
  - the **Statistics** field of the CTERMQ detail menu
- Issue the command

  CTERMD ***target terminal_ID***

  where

  target Is the name of the target CICS region.

  terminal_ID Is the ID of the terminal.

The CTERMD view appears, as shown in Figure 105 on page 154.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ----------------------------
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTERM====CTERMD==(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D=====1
    Target............    CICSPRD2                                       User N
    Terminal ID........        AAAA

    Netname...........     NETAAAA Link System Name...........     ABCD
    Transaction ID.....             Remote Name................     RAAA
    Next Trans ID......             Remote System Net Name.....      SAA
    Task ID...........           0 Remote System Name......... RSNAAAAA

    Status............              Statistics................
      Signon Status....   SIGNEDOFF   Input Messages...........        0
      Terminal.........    RELEASED   Output Messages..........        0
      CU...............   INSERVICE   Transaction Errors.......        0
      Line.............         N/A   Transmission Errors......        0
      VTAM............. NOTACQUIRED   Retries..................        0
      Device Busy......     NOTBUSY   Storage Violations.......        0
      Tracing.........   STANTRACE   Total Pipeline Messages..      N/A
      ZCP Tracing......  NOZCPTRACE   Max Consec Pipeline Msgs.      N/A
      Exit Tracing..... NOEXITTRACE   Pipeline Message Groups..      N/A
      Service..........   INSERVICE   Poll Count...............      N/A
      ATI..............       NOATI
      TTI..............         TTI   Links to other forms.....
                                      .Attribute View..........
    Signon............                .Property View...........
      User ID..........
      Operator ID......
      Operator Sec. Key      FFFFFF
      Operator Priority           0
      Operator Class...         N/A
      Terminal Priority           0
```

Figure 105. CTERMD View

Actions

The CTERMD detail view supports the same line command actions as the “CTERM View” on page 150.

Hyperlinks

The default hyperlinks defined for the CTERMD view are as follows:

Field	Data Displayed
Target	EZCREGN view
Terminal ID	CTERMQ detail menu
Transaction ID	CTRAND detail view for the transaction currently associated with this terminal
Next Trans ID	CTRAND detail view for the transaction that will be invoked next
Task ID	TASKD detail view for the task that is running on this terminal

Field	Data Displayed
Attribute View	CTERMD1 detail view
Property View	CTERMD2 detail view

CTERMD1 Hardware Attributes Detail View

To display detailed information about the hardware attributes of a specific CICS terminal, perform one of the following actions:

- Hyperlink from
  - the **Attributes** field of the CTERMQ detail menu
  - the **Attribute View** field of the CTERMD view
- Issue the command

  CTERMD1 ***target terminal_ID***

  where

  target Is the name of the target CICS region.

  terminal_ID Is the ID of the terminal.

The CTERMD1 view appears, as shown in Figure 106.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ----------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTERM====CTERMD1=(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D=====1
    Target................    CICSPRD2
    Terminal ID...........        AAAA

    Printer...............              Forms Feed..............   NOFORMFEED
    Hardware Copy.........    NOPRTCOPY Horizontal Form........      NOHFORM
    Alternate Printer......              Vertical Form...........      NOVFORM
    Alternate Hardware Copy NOALTPRTCOPY
    Copy In Control Unit...       NOCOPY Selector Pen............   NOLIGHTPEN
    Printer Adapter........ NOPRINTADAPT Audible Alarm...........   NOAUDALARM
    Text-Print.............  NOTEXTPRINT Magnetic Slot Reader.... NOMSRCONTROL

    Mixed EBCDIC/DBCS......       NOSOSI Graph Char Set Global ID
    Programmed Symbol...... NOPROGSYMBOL Code Page Global ID.....
    Katakana Terminal......   NOKATAKANA
    APL Text...............    NOAPLTEXT Extended Validation..... NOVALIDATION
    APL Keyboard...........    NOAPLKYBD Session Bind............   NOAUTOCONN
    Text Keyboard..........   NOTEXTKYBD Device Group............        MODEL
    Dualcase Keyboard......   NODUALCASE Use Partitions.......... NOPARTITIONS
                                         Data Stream Ext Sup..... NOEXTENDEDDS
    Extended Color.........      NOCOLOR ASCII Datastream Type...          N/A
    Extended Hilight.......    NOHILIGHT Modename................          N/A
    Background Transparency  NOBACKTRANS National Language.......          ENU
    Field Outlining........    NOOUTLINE Preset Security.........          N/A
```

Figure 106. CTERMD1 View

Actions

The CTERMD1 detail view supports the same line command actions as the “CTERM View” on page 150.

Hyperlinks

The default hyperlinks defined for the CTERMD1 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Terminal ID	CTERMQ detail menu

CTERMD2 Screen Properties Detail View

To display detailed information about the screen properties of a specific CICS terminal, perform one of the following actions:

- Hyperlink from
  - the **Access Method** field of the CTERM view
  - the **Properties** field of the CTERMQ detail menu
  - the **Property View** field of the CTERMD view
- Issue the command

  CTERMD2 ***target terminal_ID***

  where

target	Is the name of the target CICS region.
terminal_ID	Is the ID of the terminal.

The CTERMD2 view appears, as shown in Figure 107 on page 157.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTERM====CTERMD2=(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D=====1
    Target....................     CICSPRD2
    Terminal ID...............         AAAA

    Height....................              Width................
     Current Page.............           24  Current Page........
     Alternate Page...........            0  Alternate Page......
     Default Page.............           24  Default Page........
     Screen...................           24  Screen..............
     Alternate Screen.........            0  Alternate Screen....
     Default Screen...........           24  Default Screen......

    Properties................              BMS..................
     Access Method............         VTAM  OB Formatting.......   NOOBFORM
     Printer Name.............               OB Operator ID Used.   NOOBOPER
     Receive Only.............           NO  Page Status.........     PAGEAB
     Device Address...........               Last Map Sent.......
     UC Translation...........     NOUCTRAN  Last Map in Send Map
     Device Type..............       T3277R  FMH Support.........    NOFMHPA
     Terminal Model...........            2
     Session Type.............         LU61 Addresses............
     Create Session...........     NOCREATE  First TIOA..........     19AB72
     Device Data Stream Type..       DS3270  Active TIOA.........
     Honor Disconnect Requests      DISCREQ  Last EIP TIOA.......
     Query Structured Field...      NOQUERY  User Area...........
     Honor Release Requests...     NORELREQ  User Area Length....
     Autoinstall Console Name.               Line or RPL.........     19AEF0
     Correlation ID...........               TCT Extension.......     19AE40
     TCAM Message Control Flag           FF  EIP Control Block...
     DFHMSD Suffix............            A  User TCA............
     Cursor Address...........            0
     Last Attention ID........
```

Figure 107. CTERMD2 View

Actions

The CTERMD2 detail view supports the same line command actions as the “CTERM View” on page 150.

Hyperlinks

The default hyperlinks defined for the CTERMD2 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Terminal ID	CTERMQ detail menu
Addresses (such as First TIOA)	DUMP full-screen display The value in the selected field must be a valid address; otherwise, the hyperlink is not active.

Transaction Views

These views provide a variety of information about CICS transactions.

CTRAN View

To display general information about the transactions defined to CICS, perform one of the following actions:

- Hyperlink from the **Tran Cnt** field of the CTRNCLA view.
- Issue the command

  CTRAN [*target* [*transaction_ID*]]

  where

  target Is the specific or generic name of a target CICS region.

  transaction_ID Is the specific or generic ID of a transaction.

The CTRAN view appears, as shown in Figure 108.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTRAN============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====5
CMD Tran Target   Enable   Use DTR Rst Stg Trans    Pri Data TWA  Initial  Rem
---  ID           Status   Cnt Cnt Cnt Vio Class        Key  Len  Program  Tran
    .BAM CICSPRD2 ENABLED    1   0   0   0 DFHTCL00   1 USER    0 TDRVASM
    CAFB CICSPRD2 ENABLED    1   0   0   0 DFHTCL00   1 CICS    0 CAUCAFB1
    CAFF CICSPRD2 ENABLED    1   0   0   0 DFHTCL00 254 CICS    0 CAUCAFB1
    CATA CICSPRD2 ENABLED    1   0   0   0 DFHTCL00 255 CICS    0 DFHZATA
    CATD CICSPRD2 ENABLED    1   0   0   0 DFHTCL00 255 CICS    0 DFHZATD
```

Figure 108. CTRAN View

Actions

The CTRAN view supports the following line command actions:

Line Command	Description
CKY	Sets the transaction data key to CICS.
DIS	Disables a transaction.
ENA	Enables a transaction.
NIS	Sets transaction isolation off.
NPU	Makes a transaction non-purgeable.
SPU	Makes a transaction system-purgeable.
TIS	Sets transaction isolation on.
UKY	Sets the transaction data key to USER.

Hyperlinks

The default hyperlinks defined for the CTRAN view are as follows:

Field	Data Displayed
Tran ID	CTRANQ detail menu for the selected transaction.
Target	EZCREGN view for the selected CICS region.
Enable Status	CTRAND detail view for the selected transaction.
Use Cnt	CTRAND1 detail view for the selected transaction.

Related Views

The following view is similar to the CTRAN view. The information it provides is summarized.

View	Description
CTRANZ	A summary view of the transactions defined to CICS The data is summarized by transaction ID. The Count field shows how many transactions are represented by each line of summary data. You can hyperlink from the Count field to the CTRAN view to expand a line of summary data.

CTRANQ Detail Menu

To display a menu of detailed information about a specific CICS transaction and related resources, hyperlink from the **Tran ID** field of the CTRAN view.

The CTRANQ detail menu appears, as shown in Figure 109.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CTRAN====CTRANQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
       CICS Transaction Detail Menu

    CICS Region ------------------------->         CICSPRD2
    CICS Transaction--------------------->             .BAM

          Transaction Detail Forms                               Other Menus
  . Transaction Attributes                                     > Target Menu
  . Transaction Usage Statistics                               > Fullscreen Menu





               Related Views
  . Target Region Analysis
  . Current Tasks Executing Transaction

  . Transaction Class Details                        DFHTCL00
  . Other Transactions in Tran. Class                DFHTCL00

  . First Program Details                             TDRVASM
  . Other Transactions Using First Program            TDRVASM
```

Figure 109. CTRANQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CTRANQ detail menu are as follows:

Field	Data Displayed
Transaction Attributes	CTRAND detail view
Transaction Usage Statistics	CTRAND1 detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this transaction is defined
Current Tasks Executing Transaction	TASK view for the tasks that are executing this transaction
Transaction Class Details	CTRNCLAD detail view for the transaction class with which this transaction is associated
Other Transactions In Tran. Class	CTRAN view for other transactions in the named transaction class

Field	Data Displayed
First Program Details	CPROGD detail view for the first program associated with this transaction
Other Transactions Using First Program	CTRAN view for other transactions using the same first program

CTRAND Detail View

To display detailed information about the attributes and status of a specific CICS transaction, perform one of the following actions:

- Hyperlink from
  - the **Enable Status** field of the CTRAN view
  - the **Transaction Attributes** field of the CTRANQ detail menu
- Issue the command

  CTRAND ***target transaction_ID***

  where

target	Is the name of the target CICS region.
transaction_ID	Is the ID of the transaction.

The CTRAND view appears, as shown in Figure 110 on page 162.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTRAN====CTRAND==(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target..................... CICSPRD2
    Transaction ID............     CAFB

    Enable Status..............  ENABLED Use Count................           1
    Initial Program............  TDRVASM Current Use Count........           0
    Priority...................        1 Restart Count...........           0
    Work Area Size.............        0 Storage Violations.......           0
    Profile Name............... DFHCICST Run via Remote DTR.......           0
    Transaction Class.......... DFHTCL00 Run via Local DTR........           0
    TClass Number..............      N/A Remote Starts...........           0
                                          Action Mismatches........           0
    Transaction Isolation......      YES
    Data Location..............    BELOW Read Timeout............           0
    Data Key...................     USER Deadlock Timeout.........           0
    Storage Clear..............       NO Runaway Time............       20000
    Storage Freeze.............       NO Runaway Time Type.......      SYSTEM
    Shutdown Run Option........ DISABLED
                                          Dynamic Routing Type.....      STATIC
    Resource Security..........       NO Dynamic Routing Status... NOTROUTABLE
    Command Security...........       NO Remote Name.............
                                          Remote System............
    Purgeable On Terminal Error       NO Routing Session Profile..
    Purgeable On Timeout.......       NO Remote Connection Def....
    Dump On Transaction Abend..      YES
    Restart On Abend...........       NO Supported Devices........         ALL
                                          Use Alternate Screen Size          NO
    Transaction Trace Type..... STANDARD Upper Case Translation...          NO
    Auto Input Journaling......      YES
    Auto Output Journaling.....      YES Bridge Exit..............
    Terminal Msg Journal ID...         0 Model for Virtual Term...
                                          VTAM NEP Class...........           0
    In Doubt Option............  BACKOUT Dynamic Trans Backout....         N/A
    In Doubt Wait Option.......     WAIT
    In Doubt Wait Time.........        0 Links to other forms.....
                                          .Usage Statistics........
```

Figure 110. CTRAND View

Actions

The CTRAND detail view supports the same line command actions as the “CTRAN View” on page 158.

Hyperlinks

The default hyperlinks defined for the CTRAND view are as follows:

Field	Data Displayed
Target	EZCREGN view
Transaction ID	CTRANQ detail menu
Usage Statistics	CTRAND1 detail view

CTRAND1 Usage Statistics Detail View

To display detailed information about the usage statistics for a specific CICS transaction, perform one of the following actions:

- Hyperlink from
  - the **Use Cnt** field of the CTRAN view
  - the **Usage Statistics** field of the CTRANQ or CTRAND view
- Issue the command

  CTRAND1 ***target transaction_ID***

  where

  target Is the name of the target CICS region.

  transaction_ID Is the ID of the transaction.

The CTRAND1 view appears, as shown in Figure 111.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTRAN====CTRAND1=(ALL======CICSPRD2)18MAR2001==12:06:40====MVCICS===D====1
    Target............... CICSPRD2
    Transaction ID.......     CAFB

    Use Count............        1 Enable Status....  ENABLED
    Current Use Count....        0 Initial Program..  TDRVASM
                                   Priority.........        1
    Restart Count........        0 Work Area Size...        0
    Storage Violations...        0 Profile Name..... DFHCICST
                                   Transaction Class DFHTCL00
    Run via Remote DTR...        0 TClass Number....      N/A
    Run via Local DTR....        0
    Remote Starts........        0

    Action Mismatches....        0

    In Doubt Waits.......        0

    Force due to TranDef.        0
    Force due to In Doubt        0
    Force due to No Wait.        0
    Force due to Operator        0
    Force due to Other...        0
```

Figure 111. CTRAND1 View

Actions

The CTRAND1 detail view supports the same line command actions as the “CTRAN View” on page 158.

Hyperlinks

The default hyperlinks defined for the CTRAND1 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Transaction ID	CTRANQ detail menu

Transaction Class Views

These views provide a variety of information about CICS transaction classes, including DFHTCL00.

CTRNCLA View

To display general information about the transaction classes defined to CICS, issue the command

CTRNCLA [*target* [*class_name*]]

where

target Is the specific or generic name of a target CICS region.

class_name Is the specific or generic name of a transaction class.

The CTRNCLA view appears, as shown in Figure 112.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTRNCLA=========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====5
CMD Class    Target   Max  Pur  Tran  <--- Active --->  <--- Queued ---> Purge
---  Name            Act  Thr   Cnt  Curr  Total  HWM  Curr  Total  HWM Total
    DFHCOMCL CICSPRD2  10    0     2     0      0    0     0      0    0     0
    DFHTCIND CICSPRD2   1    0     3     0      0    0     0      0    0     0
    DFMTCL00 CICSPRD2  20  N/A   N/A     1     93    3     0      0    0     0
    DFHTCL01 CICSPRD2   0    0     1     0      0    0     0      0    0     0
    DFHTCL02 CICSPRD2   0    0     0     0      0    0     0      0    0     0
```

Figure 112. CTRNCLA View

Usage Notes

- The CTRNCLA view shows a summary of active and queued user tasks for each transaction class defined to CICS. The summary includes the average number of user tasks for each class during the most recent reporting period, the threshold set for the maximum user tasks for each class, and the highest number of concurrently active user tasks for each class.
- DFHTCL00 is a special class reserved by IBM for transactions that are not assigned to a transaction class. Some of the data presented for DFHTCL00 varies from the data for other transaction classes. For a description of the CTRNCLA fields as they apply to DFHTCL00, see Appendix B, “DFHTCL00 Values” on page 467.

Actions

The CTRNCLA view supports the following line command action:

Line Command	Description
SET	Changes the value in a modifiable field to the new value you type in that field. In transaction class views, the following fields are modifiable: • Max Act (Maximum Active Tasks) • Pur Thr (Queue Purge Threshold) **Note:** Be sure the field contains exactly the value you want before pressing Enter to issue the SET command. You must clear the field of any other data to prevent it from being passed as part of the new value.

Hyperlinks

The default hyperlinks defined for the CTRNCLA view are as follows:

Field	Data Displayed
Class Name	CTRNCLAQ detail menu for the selected transaction class
Target	EZCREGN view for the selected CICS region
Max Act	CTRNCLAD detail view for the selected transaction class
Tran Cnt	CTRAN view for the transactions that are associated with the selected transaction class The value in the Tran Cnt field must be greater than 0; otherwise, the hyperlink is not active.
Active Curr	TASKCLAA view for the active tasks that are associated with the selected transaction class The value in the Active Curr field must be greater than 0; otherwise, the hyperlink is not active.
Queued Curr	TASKCLAQ view for the queued tasks that are associated with the selected transaction class The value in the Queued Curr field must be greater than 0; otherwise, the hyperlink is not active.

Related Views

The following view is similar to the CTRNCLA view. The information it provides is summarized.

View	Description
CTRNCLAZ	A summary view of the transaction classes defined to CICS The data is summarized by transaction class name. The Count field shows how many transaction classes are represented by each line of summary data. You can hyperlink from the Count field to the CTRNCLA view to expand a line of summary data.

CTRNCLAQ Detail Menu

To display a menu of detailed information about a specific CICS transaction class and related resources, hyperlink from the **Class Name** field of the CTRNCLA view.

The CTRNCLAQ detail menu appears, as shown in Figure 113.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CTRNCLA==CTRNCLAQ=(ALL======*=======)18MAR2001==12:06:40====MVCICS===D===1
     CICS Transaction Class Detail Menu

    CICS Region ------------------------->         CICSPRD2
    CICS Transaction Class Name---------->         DFHCOMCL

       Transaction Class Detail Forms                            Other Menus
  . Attributes And Statistics                                 > Target Menu
                                                              > Fullscreen Menu





                Related Views
  . Target Region Analysis

  . Transactions In This Class                            2
  . Active Tasks For This Class                           0
  . Queued Tasks For This Class                           0
```

Figure 113. CTRNCLAQ Detail Menu

Hyperlinks

The default hyperlinks defined for the CTRNCLAQ detail menu are as follows:

Field	Data Displayed
Attributes And Statistics	CTRNCLAD detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this transaction class is defined

Field	Data Displayed
Transactions In This Class	CTRAN view for the transactions in this transaction class The value in the Transactions In This Class field must be greater than 0; otherwise, the hyperlink is not active.
Active Tasks For This Class	TASKCLAA view for the active tasks associated with this transaction class The value in the Active Tasks For This Class field must be greater than 0; otherwise, the hyperlink is not active.
Queued Tasks For This Class	TASKCLAQ view for the queued tasks associated with this transaction class The value in the Queued Tasks For This Class field must be greater than 0; otherwise, the hyperlink is not active.

CTRNCLAD Detail View

To display detailed information about a specific CICS transaction class, perform one of the following actions:

- Hyperlink from
  - the **Max Act** field of the CTRNCLA view
  - the **Attributes And Statistics** field of the CTRNCLAQ detail menu
- Issue the command

  CTRNCLAD ***target class_name***

  where

  target Is the name of the target CICS region.

  class_name Is the name of the transaction class.

The CTRNCLAD view appears, as shown in Figure 114 on page 169.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CTRNCLA==CTRNCLAD=(ALL=====CICSPRD2)18MAR2001==12:06:40====MVCICS===D===1
    Target Name........... CICSPRD2
    Class Name............     CAFB

    Transactions in Class.        1 Total Attach Requests....             4000
    Maximum Active Tasks..        5
    Queue Purge Threshold.        0 Accepted Requests........
                                     Total...................               19
    Current Active Tasks..        2  Without Queuing.........                7
    Total Active Tasks....       19  After Queuing...........               12
    Active High Water Mark        5
    Times at Max Active...        2 Purged Requests..........
                                     Total...................               37
    Current Queued Tasks..     3944  Due to Queue-Full.......               32
    Total Queued Tasks....     3961  From Queue..............                5
    Queued High Water Mark     3944
    Times At Max Queued...        3 Queue Time...............
                                     Accepted Request Total..      00:20:14.92
                                     Accepted Request Average      00:01:11.46
                                     Current Queued Total....    8.00:49:40.40
                                     Current Queued Average..      00:02:56.00
```

Figure 114. CTRNCLAD View

Actions

The CTRNCLAD detail view supports the same line command action as the “CTRNCLA View” on page 165.

Hyperlinks

The default hyperlinks defined for the CTRNCLAD view are as follows:

Field	Data Displayed
Target Name	EZCREGN view
Class Name	CTRNCLAQ detail menu

Chapter 7. Task Views

This chapter describes the MAINVIEW for CICS task views. These views provide information about the status and resource usage of tasks that are currently running on your CICS regions. You can use them to analyze the performance of active tasks relative to various system resources, such as CPU time, storage, files, serialization, and so on.

Table 10 gives a brief description of each task view and shows you where to find more information.

Table 10. MAINVIEW for CICS Task Views

View Name	Description
TASK	This tabular view displays the status of active CICS tasks. See page 169.
TASKD	This detail view displays information about a specific CICS task. See page 172.
TASKD1	This detail view displays information about the elapsed time for a specific CICS task. See page 174.
TASKD2	This detail view displays information about the suspend time for a specific CICS task. See page 176.
TASKD3	This detail view displays information about the storage usage of a specific CICS task. See page 178.
TASKD4	This detail view displays information about the call statistics for a specific CICS task. See page 179.
TASKD5	This detail view displays information about the terminal and FEPI statistics for a specific CICS task. See page 181.
TASKD6	This detail view displays information about the business transaction services (BTS) statistics for a specific CICS task. See page
TASKD7	This detail view displays information about the Web statistics for a specific CICS task. See page
TASKDA	This detail view displays the addresses of task-related storage areas associated with a specific CICS task. See page 182.
TASKDSA	This tabular view displays information about the dynamic storage area (DSA) usage of active CICS tasks. See page 187.
TASKDSAZ	This summary view displays summarized information about the dynamic storage area (DSA) usage of active CICS tasks. See page 188.
TASKFIL	This tabular view displays information about the files associated with active CICS tasks. See page 188.
TASKFILZ	This summary view displays summarized information about the files associated with active CICS tasks. See page 189.

Table 10. MAINVIEW for CICS Task Views (continued)

View Name	Description
***type*FIL**	These tabular views display information about files of a specific type that are associated with active CICS tasks. For example, MQFIL displays information about MQ Series files. See page 190.
TASKLCK	This tabular view displays information about CICS tasks that have outstanding lock conditions. See page 191.
TASKLCKZ	This summary view displays summarized information about CICS tasks that have outstanding lock conditions. See page 192.
TASKQ	This detail menu provides access to information about a specific CICS task and related resources. See page 171.
TASKTRD	This tabular view displays data from the MAINVIEW for CICS trace buffers for a specific task. See page 192.
TASKUOW	This tabular view displays information about CICS tasks that share the same business unit of work (BUOW) ID. See page 194.
TASKZ	This summary view displays summarized information about the status of active CICS tasks. See page 170.

TASK View

To display the status of active CICS tasks, issue the command

TASK [*target* [*tran_ID* [*tran_type* [*fepi_status* [*terminal_status*]]]]]

where

target Is the specific or generic name of a target CICS region.

tran_ID Is the specific or generic name of a transaction.

tran_type Specifies the type of task.

U User tasks (the default)

S System tasks

fepi_status Specifies the FEPI status of the transactions.

terminal_status Specifies the terminal status of the transactions.

The TASK view appears, as shown in Figure 115.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASK=============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====2
CMD Task  Target   St Tran Elapsed  CPU   Suspend Suspend      File   DSA   T
---  ID                ID    Time   Time    Type   Time        Waits  Size  R
      23  CICSPRD1 S  JNL2 01:52:03  0.02 EKCWAIT 00:00:02.29       1  4384 N
      24  CICSPRD1 T  JNL1 01:05:56  0.03 EKCWAIT 00:00:04.03       0  1824 N
```

Figure 115. TASK View

Actions

The TASK view supports the following line command actions:

Line Command	Description
CAN	Cancels a task using the CICS supplied transaction CEMT.
FOR	Forces a task to abend with a dump without regard for the integrity of the CICS region.
KIL	Kills a task without a dump, as long as the integrity of the CICS region can be maintained.
PUR	Purges a task normally using the CICS supplied transaction CEMT.

Hyperlinks

The default hyperlinks defined for the TASK view are as follows:

Field	Data Displayed
Task ID	TASKQ detail menu for the selected task
Target	EZCREGN view for the selected CICS region
St	TASKD detail view for the selected task
Tran ID	CTRAND detail view for the selected transaction
Elapsed Time	TASKD1 detail view for the selected task
CPU Time	TASKD4 detail view for the selected task
Suspend Type	TASKLCK view for the selected task
Suspend Time	TASKD2 detail view for the selected task
File Waits	TASKFIL view for the selected task
DSA Size	TASKD3 view for the selected task
TR	TASKTRD view for the selected task The value in the TR field must be D, which means detailed trace data is being collected for the specified task; otherwise, the hyperlink is not active.

Related Views

The following view is similar to the TASK view. The information it provides is summarized.

View	Description
TASKZ	A summary view of active CICS tasks The data is summarized by transaction ID. The Count field shows how many tasks are represented by each line of summary data. You can hyperlink from the Count field to the TASK view to expand a line of summary data.

TASKQ Detail Menu

To display a menu of detailed information about a specific CICS task and related resources, perform one of the following actions:

- Hyperlink from the **Task ID** field of the TASK view
- Issue the command

  TASKQ [*target* [*task_ID*]]

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKQ detail menu appears, as shown in Figure 116.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASK=====TASKQ===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
          CICS Task Detail Menu

    CICS Region ------------------------>       CICSPRD1
    CICS Task ID ----------------------->             24

             Task Detail Forms                               Other Menus
  . Status Data                                            > Target Menu
  . Elapsed Time Components                                > Fullscreen Menu
  . Suspend Time Components
  . Storage Utilization
  . CICS Request Statistics
  . FEPI/Terminal Statistics
  . Storage Addresses
  . Active Sessions For Task
  . Tasks with Same UOW
  . CICS BTS Statistics
  . CICS WEB Statistics

               Related Views
  . Target Region Analysis
  . File Usage By This Task

  . Transaction Details                                 JNL1
  . Current Program Details                         CMRJRNL4
  . First Program Details                           CMRJRNL4
  . Transaction Class Details                       DFHTCL00
```

Figure 116. TASKQ Detail Menu

Hyperlinks

The default hyperlinks defined for the TASKQ detail menu are as follows:

Field	Data Displayed
Status Data	TASKD detail view
Elapsed Time	TASKD1 detail view

Field	Data Displayed
Suspend Time	TASKD2 detail view
Storage Utilization	TASKD3 detail view
CICS Request Statistics	TASKD4 detail view
FEPI/Terminal Statistics	TASKD5 detail view
Storage Addresses	TASKDA detail view
Active Sessions for Task	TASKXPN5 full-screen display
Tasks with Same UOW	TASKUOW view
CICS BTS Statistics	TASKD6 detail view
CICS WEB Statistics	TASKD7 detail view
Target Region Analysis	CREGDET*n* detail view for the CICS region where this task is running
File Usage By This Task	TASKFIL view for the files associated with this task
Transaction Details	CTRAND detail view for the transaction associated with this task
Program Details	CPROGD detail view for the program associated with this task
Transaction Class Details	CTRANCLAD detail view for the transaction class associated with this task

TASKD Detail View

To display detailed information about a specific CICS task, perform one of the following actions:

- Hyperlink from the **St** field of the TASK view
- Issue the command

  TASKD ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD view appears, as shown in Figure 117 on page 173.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASK=====TASKD===(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target...........         CICSPRD1 Stg Isolation...........               NO
  Task ID..........               24 Purge Status............               NO
  Tran ID..........             JNL1 Dynamic Backout..........              N/A
  Task Status......          SUSPEND Deadlock Timeout.........               NO
  Profile..........         DFHCICST Read Timeout............                0
  Transaction Class         TRANCLS1 Tran Dumps..............              YES
  Priority.........              255 CMD Level Sec............               NO
  Facility ID......             NONE RES Level Sec............               NO
  Facility Name....                  Clear Storage............               NO
  Transaction Info.              N/A Task Data Key............             CICS
  User ID..........             BCVM Task Data Loc............            BELOW
  Network..........         USBOOL01 Trace Type...............         STANDARD
   Name............         CICSPRD1 Runaway Time.............                0
  LU Name..........                  TWA Size.................                0
  BMS Map..........                  Screen Size..............              N/A
  Program..........                  Dynamic Routing..........               NO
    First..........         CMRJRNL6 Routing Profile..........
    Current........         CMRJRNL6 Rem Trans Name...........
  Unit of Work.....                  Remote System ID.........
   Recovery ID..... B119280A00DEB403
  Attach Date......        18MAR2001 Links to other forms.....
  Attach Time......      00:01:13.46 .Elpased Time Components.
  Elapsed Time.....         00:00:10 .Suspend Time Components.
  Suspend Type.....          EKCWAIT .Storage Utilization.....
  Suspend Resource.           SINGLE .CICS Request Statistics.
  Suspend Time.....         00:00:03 .FEPI/Terminal Statistics
  Storage Used.....             1840 .Storage Addresses.......
  Bridge Tran ID...                  .Active Sessions for Task
  Terminal Net ID..                  .Tasks with same UOW.....
  Terminal RLUNAME.                  .CICS BTS Statistics.....
                                     .CICS Web Statistics.....
```

Figure 117. TASKD Detail View

Actions

The TASKD detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view
Elapsed Time Components	TASKD1 detail view
Suspend Time Components	TASKD2 detail view

Field	Data Displayed
Storage Utilization	TASKD3 detail view
CICS Request Statistics	TASKD4 detail view
FEPI/Terminal Statistics	TASKD5 detail view
Storage Addresses	TASKDA detail view
Active Sessions for Task	TASKXPN5 full-screen display
Tasks with same UOW	TASKUOW view
CICS BTS Statistics	TASKD6 detail view
CICS Web Statistics	TASKD7 detail view

TASKD1 Elapsed Time Detail View

To display detailed information about the elapsed time for a specific CICS task, perform one of the following actions:

- Hyperlink from
  - the **Elapsed Time** field of the TASK view
  - the **Elapsed Time Components** field of the TASKQ detail menu
- Issue the command

  TASKD1 ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD1 view appears, as shown in Figure 118 on page 175.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASK=====TASKD1==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target...............         CICSPRD1
  Task ID..............               24
  Tran ID..............             JNL1
  Task Status..........          SUSPEND
  Start Date...........        18MAR2001
  Start Time...........      00:01:12.58
  Elapsed Time.........      00:00:30.00
  Suspend Time.........      00:00:10.00
  Dispatched Time......      00:00:05.00
  Waiting for CPU Time..     00:00:05.00
  Using CPU Time.......      00:00:05.00
  Program Load Time....      00:00:06.00
  RMI Active Time......      00:00:07.00
  RLS SRB CPU Time.....      00:00:00.30
  CICS L8 TCB CPU Time..     00:00:00.00
  CICS J8 TCB CPU Time..     00:00:00.00
  CICS S8 TCB CPU Time..     00:00:00.00
  QR TCB CPU Time......      00:00:00.00
  QR TCB Elapsed Time...     00:00:00.00
  Other TCB CPU Times...     00:00:00.00
  Other TCB Elapsed Time     00:00:00.00
  Key 8 CPU Time.......      00:00:00.00
  Key 8 Elapsed Time....     00:00:00.00
  JVM Elapsed Time.....      00:00:00.00
  Syncpoint Elapsed Time     00:00:08.00
```

Figure 118. TASKD1 Elapsed Time Detail View

Actions

The TASKD1 detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD1 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view
Suspend Time	TASKD2 detail view

TASKD2 Suspend Time Detail View

To display detailed information about the suspend time for a specific CICS task, perform one of the following actions:

- Hyperlink from
  - the **Suspend Time** field of the TASK view
  - the **Suspend Time Components** field of the TASKQ detail menu
- Issue the command

  TASKD2 ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD2 view appears, as shown in Figure 119 and Figure 120 on page 177.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASK=====TASKD2==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target..............      CICSPRD1
  Task ID.............            24
  Tran ID.............          JNL1
  Suspend Time........   00:00:30.00

  Suspend Components..             %   Percent of Suspend   Time          Count
  --------------------                0........50......100
  Exception Wait......            50  ==========            00:00:01.50       1
  Transient Data......             0                        00:00:00.00       0
  FEPI................             0                        00:00:00.00       0
  File Control........             0                        00:00:00.00      11
  RLS.................             0                        00:00:00.00       0
  Journal Control.....             0                        00:00:00.00       0
  Temporary Storage...             0                        00:00:00.00       0
  Temp Storage Shared.             0                        00:00:00.00       0
  Terminal Control....             0                        00:00:00.00       2
  MRO This End........             0                        00:00:00.00       0
  LU6.1...............             0                        00:00:00.00       0
  LU6.2...............             0                        00:00:00.00       0
  Redispatch..........             0                        00:00:00.00      30
  Tranclass Max Delay.             0                        00:00:00.00       0
  Max Task Delay......             0                        00:00:00.00       0
  Other 1st Dispatch..             0                        00:00:00.00       0
  Lock Manager Delay..             0                        00:00:00.00       0
  ENQ Delay...........             0                        00:00:00.00       0
  RMI Suspend.........             0                        00:00:00.00       0
  Wait External.......             0                        00:00:00.00       0
  Wait CICS...........             0                        00:00:00.00       0
  Interval Control....             0                        00:00:00.00       0
  GVUPWAIT............             0                        00:00:00.00       0
```

Figure 119. TASKD2 Suspend Time Detail View (Top)

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASK=====TASKD2==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  CF Data Table I/O...            0                        00:00:00.00       0
  CF Syncpoint Wait...            0                        00:00:00.00       0
  IMS Wait............            0                        00:00:00.00       0
  DB2 Ready Que.......            0                        00:00:00.00       0
  DB2 Connect Wait....            0                        00:00:00.00       0
  DB2 Wait............            0                        00:00:00.00       0
  RRMS Wait...........            0                        00:00:00.00       0
  CICS BTS Wait.......            0                        00:00:00.00       0
  Syncpoint Delay.....            0                        00:00:00.00       0
  QR TCB Wait.........            0                        00:00:00.00       0
  Max Open TCB Wait...            0                        00:00:00.00       0
  JVM Suspend Time....            0                        00:00:00.00       0
  Global Enq Delay....            0                        00:00:00.00       0
  OTS Timeout Delay...            0                        00:00:00.00       0
  Socket IO Wait......            0                        00:00:00.00       0
  RQR Delay...........            0                        00:00:00.00       0
  RQP Delay...........            0                        00:00:00.00       0
  Other...............            0                        00:00:00.00       0
```

Figure 120. TASKD2 Suspend Time Detail View (Bottom)

Actions

The TASKD2 detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD2 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view

TASKD3 Storage Usage Detail View

To display detailed information about the storage usage of a specific CICS task, perform one of the following actions:

- Hyperlink from
  - the **DSA Size** field of the TASK view
  - the **Storage Utilization** field of the TASKQ detail menu
- Issue the command

  TASKD3 ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD3 view appears, as shown in Figure 121.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKD====TASKD3==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target............      CICSPRD1
  Task ID...........            24
  Tran ID...........          JNL1

  Storage Pool......           HWM   Getmains   Occupancy

  UDSA..............             0           0          0
  EUDSA............             0           0          0
  CDSA..............           752           0          0
  ECDSA............          2560           0          0

  Shared Storage....      Getmains   Obtained   Freed

  Total............             0           0           0
   Amode 24........             0           0           0
   Amode 31........             0           0           0

  Program Control...           HWM

  Total for All DSAs          6904
   Total Amode 31...          5896
    ECDSA...........          5896
    ESDSA...........             0
    ERDSA...........             0
   Total Amode 24...          1008
    CDSA............          1008
    SDSA............             0
    RDSA............             0
```

Figure 121. TASKD3 Storage Usage Detail View

Actions

The TASKD3 detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD3 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view

TASKD4 Call Statistics Detail View

To display detailed information about the call statistics for a specific CICS task, either

- Hyperlink from
  - the **CPU Time** field of the TASK view
  - the **CICS Request Statistics** field of the TASKQ detail menu
- Issue the command

  TASKD4 ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD4 view appears, as shown in Figure 122 on page 180.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKD====TASKD4==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
Target............      CICSPRD1 Release........     0510
Task ID...........            24
Tran ID...........          JNL1

File Control......                DL/I Requests..          DB2 Requests..      0
 Get..............             0  GU............        0  Select.......      0
 Put..............             0  GN............        0  Open.........      0
 Browse...........             0  GNP...........        0  Close........      0
 Add..............             0  GHU...........        0  Insert.......      0
 Delete...........             0  GHN...........        0  Delete.......      0
 Other............             0  GHNP..........        0  Update.......      0
 Total............             0  IRST..........        0  Fetch........      0
                                   DLET..........        0  Commit.......      0
                                   REPL..........        0  Other........      0
                                   Other.........        0

Temporary Storage.                Transient Data.          Program Cntrl.
 Get..............             0  Get...........        0  Link.........      1
 Put Aux..........             0  Put...........        0  Xctl.........      0
 Put Main.........             0  Purge.........        0  Load.........      0
 Total............             0  Total.........        0  URM Links....      0
                                                           DPL Links....      0

Storage Control...                Journal Control          Interval Cntrl
 UDSA Gets........             0  Journal Write.        0  Start........      0
 EUDSA Gets.......             0  Stream Write..        0  Total........      0
 CDSA Gets........             2
 ECDSA Gets.......             1
 Shared Gets 24bit             0
 Shared Gets 31bit             0

Syncpoint.........                Basic Mapping..          Foundation Cls
 Total............             0  Map...........        0  OO Class.....
                                   In............        0
                                   Out...........        0
                                   Total.........        0
```

Figure 122. TASKD4 Call Statistics Detail View

Actions

The TASKD4 detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD4 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view

TASKD5 Terminal and FEPI Statistics Detail View

To display detailed information about the terminal and FEPI statistics for a specific CICS task, perform one of the following actions:

- Hyperlink from the **FEPI/Terminal Statistics** field of the TASKQ detail menu
- Issue the command

  TASKD5 ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD5 view appears, as shown in Figure 123.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKD====TASKD5==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target......................       CICSPRD1
  Task ID.....................             24
  Tran ID.....................           JNL1

  Access Method...............           VTAM
  Session Type................            IRC
  Terminal ID.................
  VTAM Logical Unit Name......

  CICS Terminal Statistics....       Primary     LU61 Alt    LU62 Alt

   Messages Received..........               0          0           0
   Bytes Received.............               0          0           0
   Messages Sent..............               0          0           0
   Bytes Sent.................               0          0           0

   Number of Allocate Requests              0

  FEPI Statistics.............

   Conversation Allocates.....               0
   Receives...................               0
   Sends......................               0
   Starts.....................               0
   Total API/SPI Requests.....               0
   Bytes Sent.................               0
   Bytes Received.............               0
   Receive Timeouts...........               0
   Allocate Timeouts..........               0
```

Figure 123. TASKD5 Terminal and FEPI Statistics Detail View

Actions

The TASKD5 detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD5 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view

TASKD6 Business Transaction Services Statistics Detail View

To display detailed information about the business transaction services (BTS) statistics for a specific CICS task, perform one of the following actions:

- Hyperlink from the **CICS BTS Statistics** field of the TASKQ detail menu
- Issue the command

  TASKD6 ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD6 view appears, as shown in Figure 124 on page 183.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKD====TASKD6==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target...............                                              CICSPRD1
  Task ID..............                                                    24
  Tran ID..............                                                  JNL1

  CICS BTS Information.
   Process Name........
   Process Type........
   Process ID..........
   Activity ID.........
   Activity Name.......
   Synch Run Requests..                                                     0
   Asynch Run Requests.                                                     0
   Link Requests.......                                                     0
   Define Process......                                                     0
   Define Activity.....                                                     0
   Reset Requests......                                                     0
   Suspend Requests....                                                     0
   Resume Requests.....                                                     0
   Delete Requests.....                                                     0
   Acquire Requests....                                                     0
   Total Proc/Act......                                                     0
   Del/Get/Put Pr Data.                                                     0
   Del/Get/Put Act Data                                                     0
   Total Del/Get/Put...                                                     0
   Retrieve/Reattach...                                                     0
   Define Input........                                                     0
   Timer Requests......                                                     0
   Total Event Requests                                                     0
```

Figure 124. TASKD6 BTS Statistics Detail View

Actions

The TASKD6 detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD6 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view

TASKD7 Web Interface Statistics Detail View

To display detailed information about the Web statistics for a specific CICS task, perform one of the following actions:

- Hyperlink from the **CICS WEB Statistics** field of the TASKQ detail menu
- Issue the command

  TASKD7 ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKD7 view appears, as shown in Figure 125.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKD====TASKD7==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target........................ CICSPRD1
  Task ID.......................       24
  Tran ID.......................     JNL1

  CICS Web Interface Information          Socket Information
   Receive Requests............        0  Client IP Address
   Bytes Received..............        0  TCPIP Service....
   Send Requests...............        0  TCPIP Port.......
   Bytes Sent..................        0  Extracts.........
   Total Requests..............        0  NPS Count........
   Repository Reads............        0  NPS HWM..........
   Repository Writes...........        0  PS Count.........
   Reads.......................        0  PS HWM...........
   Writes......................        0  # Receives.......
   Browse......................        0  # Characters In..
   Extracts....................        0  # Sends..........
                                           # Characters Out.
  Document Requests............           Totals...........
   Document Create.............        0  # Bytes Encrypted
   Document Insert.............        0  # Bytes Decrypted
   Document Set................        0
   Document Retrieve...........        0
   Total Document..............        0
   Total Length................        0
```

Figure 125. TASKD7 WEB Statistics Detail View

Actions

The TASKD7 detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKD7 view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view

TASKDA Storage Addresses Detail View

To display the addresses of task-related storage areas associated with a specific CICS task, perform one of the following actions:

- Hyperlink from the **Storage Addresses** field of the TASKQ detail menu
- Issue the command

  TASKDA ***target task_ID***

  where

  target Is the name of the target CICS region.

  task_ID Is the ID of the CICS task.

The TASKDA view appears, as shown in Figure 126.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKD====TASKDA==(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
  Target........  CICSPRD1
  Task ID.......        24
  Tran ID.......      JNL1

  Task Area..... Address
   XM_TXN....... 19706690
   User TCA.....    52680
   HLL Return...        0
   CMN REQ......        0
   DTA......... 1969f080
   JCA..........        0
   UIB..........        0
   EISTG........        0
   DL/I ISB.....        0
   ECB..........    c2030
   ICE..........        0
   Abend Exit...        0
   DWE Chain....        0
   Queue Element      N/A
   Lifo Stack...        0
   CMP Area.....        0
   RSA..........        0
   COMMAREA.....        0
```

Figure 126. TASKDA Detail View

Actions

The TASKDA detail view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKDA view are as follows:

Field	Data Displayed
Target	EZCREGN view
Task ID	TASKQ detail menu
Tran ID	CTRAND detail view
Task Area (such as User TCA)	DUMP full-screen display The value in the selected field must be a valid address; otherwise, the hyperlink is not active.

TASKDSA View

To display information about the dynamic storage area (DSA) usage of active CICS tasks, issue the command

TASKDSA [*target* [*tran_ID* [*dsa_name* [*tran_type* [*task_ID*]]]]]

where

target Is the specific or generic name of a target CICS region.

tran_ID Is the specific or generic name of a transaction.

dsa_name Is the name of a dynamic storage area.

CDSA CICS DSA
RDSA Read-only DSA
SDSA Shared DSA
UDSA User DSA

ECDSA Extended CICS DSA
ERDSA Extended Read-only DSA
ESDSA Extended Shared DSA
EUDSA Extended User DSA

tran_type Specifies the type of task.

U User tasks (the default)
S System tasks

task_ID Is the ID of a CICS task.

The TASKDSA view appears, as shown in Figure 127.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKDSA==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====8
CMD Task  Target   Tran  DSA   HWM        Get      Occupancy  Storage   Storage
---  ID             ID   Name             Mains               Obtained  Freed
      23  CICSPRD1 JNL2  CDSA         736        2         0
      23  CICSPRD1 JNL2  UDSA           0        0         0
      23  CICSPRD1 JNL2  SDSA           -        0         -          0
      23  CICSPRD1 JNL2  RDSA        1008        -         -
      23  CICSPRD1 JNL2  ECDSA       2560        1         0
      23  CICSPRD1 JNL2  EUDSA          0        0         0
      23  CICSPRD1 JNL2  ESDSA          -        0         -          0
      23  CICSPRD1 JNL2  ERDSA       5896        -         -
```

Figure 127. TASKDSA View

Actions

The TASKDSA view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKDA view are as follows:

Field	Data Displayed
Task ID	TASKQ detail menu for the selected task
Target	EZCREGN view for the selected CICS region
Tran ID	CTRAND detail view for the selected transaction

Related Views

The following view is similar to the TASKDSA view. The information it provides is summarized.

View	Description
TASKDSAZ	A summary view of the DSA usage of active CICS tasks The data is summarized by task ID. The Count field shows how many tasks are represented by each line of summary data. You can hyperlink from the Count field to the TASKDSA view to expand a line of summary data.

TASKFIL View

To display information about the files associated with active CICS tasks, perform one of the following actions:

- Hyperlink from
  - the **File Waits** field of the TASK view
  - the **File Usage By This Task** field of the TASKQ detail menu
- Issue the command

  TASKFIL [*target* [*tran_ID* [*file_name* [*task_ID*]]]]

  where

target	Is the specific or generic name of a target CICS region.
tran_ID	Is the specific or generic name of a transaction.
file_name	Is the specific or generic name of a file.
task_ID	Is the ID of a CICS task.

The TASKFIL view appears, as shown in Figure 128 on page 189.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKFIL==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====4
CMD Task Target   Tran T   File     File   F Count  Elapsed  Average  Elapsed
---  ID            ID  S   Name     Type   S        I/O Time I/O Time TaskTime
      23 CICSPRD1 JNL2 S DFHCSD   CICS FCT       1     0.147    0.013 00:57:19
      24 CICSPRD1 JNL1 S DFHCSD   CICS FCT      11     0.245    0.029 00:59:07
      71 CICSPRD2 TC53 S DB2001   DB2S         218     1.252    0.002 00:26:45
      74 CICSPRD2 XEIO S MQSTEST  MQSERIES      34     3.700    5.600 00:02:03
```

Figure 128. TASKFIL View

Usage Notes

TASKFIL can report on up to 255 files for each task.

Actions

The TASKFIL view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKFIL view are as follows:

Field	Data Displayed
Task ID	TASKQ detail menu for the selected task
Target	EZCREGN view for the selected CICS region
Tran ID	CTRAND detail view for the selected transaction
File Name	CFILED detail view for the selected file

Related Views

The following view is similar to the TASKFIL view. The information it provides is summarized.

View	Description
TASKFILZ	A summary view of the files associated with active CICS tasks The data is summarized by task ID. The Count field shows how many tasks are represented by each line of summary data. You can hyperlink from the Count field to the TASKFIL view to expand a line of summary data.

*type*FIL Views

To display information about files of a specific type that are associated with active CICS tasks, issue the command

***type*FIL [*target* [*tran_ID* [*file_name* [*task_ID*]]]]**

where

type Identifies the type of file.

ACTIVFIL	All active files
ADBASFIL	ADABAS files
CICSFIL	Files defined to the CICS file control table (FCT)
DB2FIL	DB2 files
DBCTLFIL	IMS files
DTCOMFIL	DATACOM/DB files
GENERFIL	GENER/OL files
IDMSFIL	IDMS files
MQFIL	MQ Series files
SAPFIL	SAP files
SUPRAFIL	SUPRA files
SYS2KFIL	SYSTEM/2K files

target Is the specific or generic name of a target CICS region.

tran_ID Is the specific or generic name of a transaction.

file_name Is the specific or generic name of a file.

task_ID Is the ID of a CICS task.

Figure 129 shows a sample CICSFIL view.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CICSFIL==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====2
CMD   File   Task  Target   Tran T   File   F Count  Elapsed  Average  Elapsed
---   Name   ID              ID  S   Type   S        I/O Time I/O Time TaskTime
    DFHCSD      23 CICSPRD1 JNL2 S CICS FCT       1     0.147    0.013 00:57:19
    DFHCSD      24 CICSPRD1 JNL1 S CICS FCT      11     0.245    0.029 00:59:07
```

Figure 129. CICSFIL View

Usage Notes

The *type*FIL views provide the same data as the TASKFIL view. The data is filtered by file type before it is displayed.

Actions

The *type*FIL views support the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the *type*FIL views are as follows:

Field	Data Displayed
File Name	CFILEQ detail menu for the selected CICS file This hyperlink is valid only from the CICSFIL view; for all other *type*FIL views, the hyperlink is not active.
Task ID	TASKQ detail menu for the selected task
Target	EZCREGN view for the selected CICS region
Tran ID	CTRAND detail view for the selected transaction

TASKLCK View

To display information about CICS tasks that have outstanding lock conditions, perform one of the following actions:

- Hyperlink from the **Suspend Type** field of the TASK view
- Issue the command

  TASKLCK [*target* [*tran_ID* [*lock_type* [*lock_name*]]]]

  where

  target Is the specific or generic name of a target CICS region.

  tran_ID Is the specific or generic name of a transaction.

  lock_type Specifies the type of lock condition.

  ENQUEUE Local ENQUEUEs
  ENQGLBL Global ENQUEUEs

  lock_name Is up to 12 characters of a lock name.

The TASKLCK view appears, as shown in Figure 130.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKLCK==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
CMD Task  Target   Tran S Lock    H HoldWait Short Lock     Suspend Suspend  El
---  ID             ID  T Type    W  Time    Name            Type    Time     T
       23 CICSPRD1 JNL2 S ENQUEUE H 00:00:00 CMRJRNL        EKCWAIT 00:33:14 00
```

Figure 130. TASKLCK View

Usage Notes

The tasks shown in TASKLCK are either waiting for a resource that is held by another task or holding a resource for which another task is waiting.

Actions

The TASKLCK view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKLCK view are as follows:

Field	Data Displayed
Task ID	TASKQ detail menu for the selected task
Target	EZCREGN view for the selected CICS region
Tran ID	CTRAND detail view for the selected transaction
Short Lock Name	DUMP full-screen display The value in the Short Lock Name field must be an address; otherwise, the hyperlink is not active.

Related Views

The following view is similar to the TASKLCK view. The information it provides is summarized.

View	Description
TASKLCKZ	A summary view of CICS tasks that have outstanding lock conditions The data is summarized by short lock name. The Count field shows how many tasks are represented by each line of summary data. You can hyperlink from the Count field to the TASKLCK view to expand a line of summary data.

TASKTRD View

To display data from the MAINVIEW for CICS trace buffers for a specific CICS task, perform one of the following actions:

- Hyperlink from the **TR** field of the TASK view
- Issue the command

  TASKTRD [*target* [*tran_ID* [*task_ID*]]]

  where

  target Is the specific or generic name of a target CICS region.

  tran_ID Is the specific or generic name of a transaction.

  task_ID Is the ID of a CICS task.

The TASKTRD view appears, as shown in Figure 131 on page 193.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASKTRD==========(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====1
CMD Task  Target   Tran Event                     Code     At      Elapsed  CPU
---  ID   Name     ID                             Ofst    Time      Time
       23 CICSPRD1 JNL2 RESP                           00:02:16.3 0.000276
       23 CICSPRD1 JNL2 GETMAIN                   00A8 00:02:16.3 0.000010
       23 CICSPRD1 JNL2 RESP                           00:02:16.3 0.001253
       23 CICSPRD1 JNL2 FREEMAIN                  02FC 00:02:16.3 0.000019
       23 CICSPRD1 JNL2 RESP                           00:02:16.3 0.075390
       23 CICSPRD1 JNL2 DELAY                     0288 00:02:15.2 0.000008 0.08
       23 CICSPRD1 JNL2 RESP                      0053 00:02:15.2 0.000282
       23 CICSPRD1 JNL2 INQUIRE-TRANSACTION       0262 00:02:15.2 0.000008
```

Figure 131. TASKTRD View

Usage Notes

- In order to hyperlink to TASKTRD, the value in the **TR** field of the TASK view must be D. A value of D means detailed trace data is being collected for the specified task.
- The trace data displayed in TASKTRD is transient. TASKTRD presents a limited number of trace records for a task while it is active. Once the task is complete, the MAINVIEW for CICS trace buffers are cleared.

Actions

The TASKTRD view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKTRD view are as follows:

Field	Data Displayed
Task ID	TASKQ detail menu for the selected task
Target Name	EZCREGN view for the selected CICS region
Tran ID	CTRAND detail view for the selected transaction

TASKUOW View

To display information about CICS tasks that share the same business unit of work (BUOW) ID, issue the command

TASKUOW [*buow_ID* [*target*]]

where

buow_ID Is the specific or generic ID of a business unit of work.

target Is the specific or generic name of a target CICS region.

The TASKUOW view appears, as shown in Figure 132.

```
18MAR2001  12:06:40 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =TASK=============(ALL======*=======)18MAR2001==12:06:40====MVCICS===D====3
CMD Business Unit of Work ID       Target   Task  Tran  GMT Attach Suspend
---         (BUOWID)                          ID    ID      Time     Time
    USBMCS01.TCPBL235 B6502CDCFEEF CICSPRD1    23 JNL2 02:42:48.00 00:00:02.29
    USBMCS01.BCVCD530 B61704DF36FA CICSPRD1    24 JNL1 02:27:13.00 00:00:04.03
                      B617043FD60E CICSPRD1    27 CECI 02:27:02.00 00:00:05.18
```

Figure 132. TASKUOW View

Usage Notes

- The BUOW ID uniquely identifies a unit of work by its origin and time. The ID consists of an origin value (such as a network ID and LUNAME, for VTAM terminals) and an origin clock value from the originating system.
- By default, the data in TASKUOW is sorted by GMT task attach time.

Actions

The TASKUOW view supports the same line command actions as the “TASK View” on page 169.

Hyperlinks

The default hyperlinks defined for the TASKUOW view are as follows:

Field	Data Displayed
Business Unit of Work ID (BUOWID)	TASKQ detail menu for the selected task
Target	EZCREGN view for the selected CICS region
Task ID	TASKD detail view for the selected task
Tran ID	CTRAND detail view for the selected transaction
Suspend Time	TASKD2 detail view for the selected task

Related Views

The following view is similar to the TASKUOW view. The information it provides is summarized.

View	Description
TASKUOWZ	A summary view of CICS tasks that share the same BUOW ID The data is summarized by BUOW ID. The Count field shows how many tasks are represented by each line of summary data. Only those BUOW IDs for which the task count is greater than one are displayed. You can hyperlink from the Count field to the TASKUOW view to expand a line of summary data.

Chapter 8. PERFORMANCE Option

When you select Option P, **PERFORMANCE**, from the Primary Option Menu, the Performance Indicator Menu appears, as shown in Figure 133.

```
BMC SOFTWARE ------------ PERFORMANCE INDICATOR MENU ---------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD

     1  SUMMARY      - Summary of CICS Activity
     2  MONITOR      - Display Current Service Level Information
     3  PROBLEM      - Display Current CICS Problems - All
     4  SEVERE       - Display Current CICS Problems - Severe only
     5  WARNING      - Display Current CICS Problems - Warning only
     6  INFO         - Display Current CICS Problems - Info only
     7  STATUS       - Status of Related CICS Regions
```

Figure 133. Performance Indicator Menu

From the Performance Indicator Menu, you can:

- Obtain a summary of all tasks running in the system
- Check the response times and status of data collection
- View warning messages and take corrective action even when CICS is not accepting terminal input

You can also select a performance option from any MAINVIEW for CICS display by typing the appropriate command on the **COMMAND** line. The command must be preceded by the EXEC command; for example,

EXEC PROBLEM SEVERE
or
EX P S

In the following sections, the description of each performance option includes

- EXEC command format
- Further explanation of some commands
- Available action services

You can use the following qualifier characters with the EXEC command to limit the display:

+ Denotes positions that are not to be compared to the item's identifier, such as a program name or transaction ID; for example,

  EXEC PROGRAM D++ZATD

* Indicates that the remainder of the item's identifier is not to be compared; for example,

  EXEC PROGRAM DFH*

SUMMARY: Current CICS Status

To view the current status of a CICS system, select Option 1, **SUMMARY**, from the Performance Indicator Menu.

The SUMMARY Display appears, as shown in Figure 134.

```
BMC SOFTWARE ------------ SUMMARY  DISPLAY -------------------- TIME: 13:11:23
COMMAND ===>                                                 CICS ===> CICSPROD

  PERFORMANCE INDICATOR      TREND   CURRENT   CURRENT ENVIRONMENT
  TOTAL CPU PERCENTAGE        0.13      0.11
  USER CPU PERCENTAGE         8.50      7.45    TERMINALS
  PAGEIN  / SECOND RATE       1.20      0.75      SIGNED ON              156
  TRANSACTIONS / SECOND      15.38     12.14      PROCESSING             145
  TERMINAL TRANS. / SECOND   14.56     11.02      OUT OF SERVICE           3
  AVERAGE RESPONSE TIME       0.85      1.10      ACQUIRED               168
  FC I/O WAIT / SECOND        6.80      6.77
  PERCENT CDSA IN USE        25.70     25.60    FILES
  PERCENT UDSA IN USE        89.83     85.40      OPENED                  87
  PERCENT ECDSA IN USE        7.80      7.42      CLOSED                  27
  PERCENT EUDSA IN USE       22.12     54.34      DISABLED                 1
  MVS STORAGE < 16M          90.25     92.22      ENABLED                113
  MVS STORAGE > 16M          10.50     10.63
           -PREVIOUS HIGH VALUE-RECENT HIGH-    TRANSACTIONS
  CPUREAL  11:03:12 KP13   3.12  MAIN   1.04      EXECUTING NOW           11
  PAGING                     N/A          N/A      TOTAL EXECUTED       87415
  RESPONSE  8:12:45 FRD1  12.35  AA02   9.15      UNIQUE IDS USED        127
  I/O WAIT  9:45:33 EM90   4.12  EM90   4.53
  **************************** END OF DATA ***********************************
```

Figure 134. Sample SUMMARY Display

Usage Notes

Performance indicator values are available only when MAINVIEW for CICS data collection is active; they represent the average for the completed data collection intervals. If the data collection interval is 15 minutes (the default), the Trend column displays the average for the previous nine complete 15-minute intervals. The Current column displays the current 10th interval.

The sources of information for the Current Environment column are the Terminal Control Table (TCT), the File Control Table (FCT), the Program Control Table (PCT), and the currently executing transactions. Additional sources of information include the currently executing Dispatch Task Areas (DTAs) and Task Queue Elements (TQEs).

Information for the Previous High values is collected and maintained from the start of CICS. Information for the Recent High values is collected during the current interval.

Command Conventions

Format	**EXec SUMmary**	
Commands	EXPAND	Is not available.
	Locate	Is not available.
	Scrolling	Is not available.
Action Services	None.	

MONITOR: Data Collection Status

To display resources that have exceeded their service levels, select Option 2, **MONITOR**, from the Performance Indicator Menu.

The MONITOR Display appears, as shown in Figure 135.

```
BMC SOFTWARE ------------------- MONITOR DISPLAY -------------- TIME: 12:31:44
COMMAND ===>                                                  CICS ===> CICSPROD

   RESOURCE      --------- CURRENT MONITORED RESOURCE STATUS -----------------
                 EXTRACTOR ACTIVE, CMRDETL ACTIVE, CMRSTAT ACTIVE
   TRAN ABSD     EXCEEDED SERVICE LEVEL, CURRENT RESPONSE TIME IS  1.320 SEC
   FILE FICSPROD EXCEEDED SERVICE LEVEL, 0.435 IS CURRENT AVG SERVICE TIME
```

Figure 135. Sample MONITOR Display

Usage Notes

The current status of data collection and its components is displayed as:

ACTIVE Indicates that data collection has been started and is still running.

STOPPED Indicates that data collection has never been started. To turn on data collection, follow the instructions provided in "MAINVIEW for CICS Data Collection" on page 2.

Expanding any resource field on this display takes you to GRAPH.

Command Conventions

Format **EXec Monitor**

Commands

EXPAND	Provides graphical information when you place the cursor on a line (see Figure 138 on page 207 for an example of the graphical display).
Locate	Is not available.
Scrolling	Is available.

Action Services None.

PROBLEM: Problem Areas

To display a list of current problem conditions relating to CICS operation, such as short-on-storage conditions, select Option 3, **PROBLEM**, from the Performance Indicator Menu.

The PROBLEM Display appears, as shown in Figure 136.

```
BMC SOFTWARE ------------------- PROBLEM DISPLAY -------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
   MESSAGE
   NUMBER   ---------------- DESCRIPTION OF PROBLEM ------------  THRESHOLD
   FT051W   CICS DYNAMIC STORAGE AREA IN USE AT  81.4 PERCENT   > 80.0
   FT058I   HIGHEST NUMBER OF ACTIVE TASKS WAS  34              > 12
   FT067I   122 TEMPORARY STORAGE EXTENSIONS CREATED            > 100
   FT085I   1 PROGRAM INTERRUPT HAS OCCURRED                    > 0
   FT086I   2 STORAGE DUMPS HAVE BEEN TAKEN                     > 0
```

Figure 136. Sample PROBLEM Display

Usage Notes

- The PROBLEM display provides a good starting point for examining a CICS system that is not processing as it should. For each detected problem, the display provides a message number whose suffix is a severity level, a description of the condition, and the current value. Messages for each severity level are displayed in different colors.

Note: Problems can also be displayed by severity level through Options 4 (SEVERE), 5 (WARNING), and 6 (INFO) of the Performance Indicator Menu.

Table 11 lists the default message characteristics as defined by the CMRPRBT macro:

Table 11. Default PROBLEM Message Characteristics

Message Type	Suffix	Color
Informational messages	I	Green
Warning messages	W	Blue
Severe messages	S	Red

For instructions on using the CMRPRBT macro to change the default threshold colors see the *MAINVIEW for CICS Customization Guide*.

- The majority of problem conditions that are listed in the PROBLEM display are also stored in the BBILOG data set. While PROBLEM presents only currently existing conditions, the BBILOG maintains a running history of problem conditions that have been detected. The following messages, however, are displayed only; they are not stored in the BBILOG:

  FT073W TRAN xxxx TASK nnnnn WAITING FOR CICS STORAGE xxxxxxxx
  FT074W TRAN xxxx TASK nnnnn WAITING FOR RESOURCE xxxxxxxx
  FT075W TRAN xxxx TASK nnnnn WAITING ON BUFFERS FOR xxxxxxxx
  FT076W TRAN xxxx TASK nnnnn WAITING ON STRING FOR xxxxxxxx
  FT077W TRAN xxxx TASK nnnnn WAITING EXCLUSVE CNTRL xxxxxxxx

- In addition to messages for the various severity levels, MAINVIEW for CICS issues a message when a monitored value returns below the lowest informational message threshold. This message, which has a suffix of Z appended to the message number, indicates a monitored value has returned to safe operating limits, as defined by the thresholds you set in CMRPRBT.

  As an example, the following sequence of messages appears when CPU usage exceeds the informational threshold of 10%, then the warning threshold of 20%, and finally returns to its safe operating limits below 10%.

  FT046I CICS CURRENTLY USING 13% OF CPU > 10%
  FT046W CICS CURRENTLY USING 22% OF CPU > 20%
  FT046Z CICS CURRENTLY USING 21% OF CPU < 20%

  The last message, with a suffix of Z, shows the last value that exceeded the warning threshold of 20%.

Note: Messages with a suffix of Z do not appear in the PROBLEM display; they are only stored in the BBILOG.

Command Conventions

Format

EXec Problem *aaaaaaaa*

where

aaaaaaaa Indicates the severity of the messages to be displayed.

S or **SEVERE**
Displays severe problem messages (requires immediate action).

W or **WARNING**
Displays warning messages (requires attention).

I or **INFO**
Displays informational messages (may require attention).

blank
Displays all messages.

Commands

EXPAND	Transfers you to a related display that provides more information about the message when you place the cursor on the line.
HELP	Provides a special function. When you place the cursor on a message line and press the HELP PF key, it displays a description of the problem.
Locate	**L *aaaaaa***
Scrolling	Is available.

Action Services None.

STATUS: Related CICS Regions

To display the current status of CICS regions defined to a single BBI-SS PAS, select Option 7, **STATUS**, from the Performance Indicator Menu.

The STATUS Display appears, as shown in Figure 137.

```
BMC SOFTWARE ------------------- STATUS DISPLAY --------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD

  - CICS -  ---- MESSAGE LOGGED BY THE BACKGROUND PROBLEM SERVICE ----
  CICSPROD  FT443I   NO SIGNIFICANT PROBLEMS TO DISPLAY
  CICSTSTA  FT443I   NO SIGNIFICANT PROBLEMS TO DISPLAY
  CICSTSTB  FT443I   NO SIGNIFICANT PROBLEMS TO DISPLAY
  CICSTSTC  FT443I   NO SIGNIFICANT PROBLEMS TO DISPLAY
  CICSTSTD  FT420E   SERVICE FAILED -JOB NOT FOUND
  CICSTSTE  FT420E   SERVICE FAILED -JOB NOT FOUND
```

Figure 137. Sample STATUS Display

Usage Notes

The STATUS function displays significant problems that currently are occurring in all of the CICS regions managed by a given BBI-SS PAS. This list of significant problems is predefined and represents those problems requiring intervention:

FT050 CURRENTLY RUNNING SHORT ON STORAGE
FT051 DYNAMIC STORAGE IN USE AT NNN PERCENT
FT053 CURRENTLY AT MAX TASK
FT054 CURRENTLY AT NNN PERCENT OF MAX TASK
FT056 CURRENTLY AT ACTIVE MAX TASK
FT057 CURRENTLY AT NNN PERCENT OF ACTIVE MAX TASK
FT059 CURRENTLY AT DL/I MAXIMUM TASK
FT066 NNNNN STORAGE VIOLATIONS HAVE OCCURRED
FT420 SERVICE FAILED - REASON CODE
FT424 NOT A VALID CICS
FT425 CICS INITIALIZING

Message numbers can be displayed with online help.

Messages for each severity level are displayed in different colors. The default colors as defined with the CMRPRBT macro are:

RED	Severe messages
BLUE	Warning messages
GREEN	Informational messages

Refer to the *MAINVIEW for CICS Customization Guide* for instructions on changing default message colors.

Command Conventions

Format	**EXec STatus** ***aaaaaaaa***	
	where	
	aaaaaaaa	Identifies the displayed targets.
		***** or **ALL** — Displays all active CICS targets.
		F or **FULL** — Displays all CICS targets.
Commands	EXPAND	Displays the Problem Display for a CICS region (see Figure 136 on page 205) when you place the cursor on the message line. (The CICS target name in the upper right corner of the display also changes.)
	HELP	Provides more information about the message when you place the cursor on the message line and press the HELP PF key.
	Locate	**L** ***aaaaaa***
	Scrolling	Is available.
Action Services	None.	

Chapter 9. GRAPHICS Option

MAINVIEW for CICS maintains real-time performance indicator values, which can be used to graph system statistical data or to detect performance bottlenecks and problems. You can:

- Monitor CICS resource consumption using graphic displays that note resources that have exceeded user-specified thresholds
- Redesign graphic displays interactively to view thresholds for selected resource groupings in the CICS environment

These values can be accessed in three ways:

Predefined graphs

Option G, GRAPHICS, of the Primary Option Menu invokes the predefined graph facility. This provides a menu of graph selections that have been predefined to MAINVIEW for CICS. You can select specific graphs to view. Scrolling to other predefined graphs also is supported. For more information, refer to "Selecting a Predefined Graph" on page 211.

User-defined graphs

Option U, USER GRAPHS, of the Graph Master Menu invokes the user-defined graph facility. This provides selection lists for specifying given resources and fields to be included in the graphs. For more information, refer to "Selecting a User-Defined Graph" on page 217.

Direct command entry

The graph service may be invoked using the EXEC command or the CYCLE SETUP application. This allows direct graph requests without using any menu selection. It is intended for the more experienced user. For more information, refer to "Using Direct GRAPH Command Requests" on page 219.

Performance Indicator Values

MAINVIEW for CICS maintains approximately 400 real-time performance indicator values covering the following areas:

Graph Area	Description
GLBL CICS	Displays historical CICS task usage statistics, including CPU, paging, and task rates.
GLBL SYSTEM	Displays a summary of all terminal-attached transactions across the CICS system.
GLBL SERVICE	Displays historical transaction service level statistics. Eighteen service level categories can be defined by the user. These categories can be graphically depicted either as percentages or as counts of terminal attached transactions meeting the appropriate service level.

GLBL SUBPOOL Displays historical CICS storage subpool, high-water mark information. The number of GETMAINs and FREEMAINs also can be graphed.

Note: For graphing purposes, operating system storage (OSCOR) is treated as a CICS storage subpool.

TRAN Displays statistical data presented by transaction ID. Resources used by a transaction can be inspected for performance bottlenecks or problem areas.

TERM Displays statistical data presented by terminal ID. Resources used by a terminal-oriented transaction can be graphed and inspected for performance bottlenecks or problems.

PANL Displays statistical data presented by 4GL panel. Resources used by a transaction can be graphed and inspected, by associated 4GL panel name, for performance bottlenecks or problems.

MAPS Displays statistical data presented by Basic Mapping Support (BMS) map set. Resources used by a transaction can be graphed by associated BMS map set name and inspected for performance bottlenecks or problems.

PSBS Displays statistical data presented by DL/I Program Specification Block (PSB). Resources used by a transaction can be graphed by associated PSB name and inspected for performance bottlenecks or problems.

FILE Displays statistical data about any file or data set monitored by MAINVIEW for CICS. File usage trends can be tracked and correlated with peak transaction usage periods to identify causes of response time degradation. Patterns of file lockout also can be detected. Lockouts cause poor response times for the associated transactions; virtual storage requirements are increased correspondingly because the locked-out transactions are suspended pending release.

Graphing One or More Resources

Graphs are presented in two formats: one-resource and multiple-resource.

One-Resource Graph

A one-resource graph shows multiple time periods with the most current period at the top of the display. A one-resource graph is displayed when:

- A particular resource name is requested. In this case, up and down scrolling may be used to display resources before and after the selected resource.
- A global resource graph is requested (those listed as GLBL above). In this case, up and down scrolling have no effect.

A one-resource graph can show from one to six graphs on a single display. An example of a one-resource graph is shown in Figure 138.

```
BMC SOFTWARE ----------------GRAPH TRAN CEMT --------------------TIME: 14:11:56
COMMAND ===>                                                  CICS ===> CICSPROD

CEMT          USE COUNT 3          RESPONSE TIME           # LT 1.0 SECS
  1       2  ----------   -----          ---------------         --------------
CURRENT    6 |***            |  0.463 |*******        |     6 |***            |
14:00:00   4 |**             |  0.358 |******         |     4 |**             |
13:45:00  28 |************** |  0.368 |******         |    14 |********       |
13:30:00   8 |****           |  0.716 |**********     |     8 |****           |
13:15:00  24 |**4*******     |  0.932 |************** |    18 |*********      |
13:00:00   1 |*              |  0.479 |*******        |     1 |*              |
12:45:00  10 |*****          |  0.084 |*              |    10 |*****          |
12:30:00  12 |******         |  0.628 |**********     |    10 |*****          |
12:15:00   6 |***            |  0.379 |******         |     5 |***            |
12:00:00  22 |***********    |  0.126 |**             |    19 |***************|
              ---------------          ---------------         ---------------
```

Figure 138. Sample One-Resource Graph

1 Time each sample was taken.

2 Values plotted for previous intervals. The most current interval average is represented by the top value and is updated with real-time data.

Note: The interval is set through the CMRSOPT GPERIOD option (see the *MAINVIEW for CICS Customization Guide* for more information). Intervals can be from 2 to 30 minutes long.

3 Field title.

4 Threshold level indicators.

A message is displayed when there is no data for the resource.

Global resource level graphs are one-resource graphs that show:

- Historical CICS task usage statistics, including CPU, paging, and task rates
- Historical transaction service level statistics
- Historical CICS storage subpool high-water mark data
- User-defined time intervals for each global resource, as specified at MAINVIEW for CICS startup

An example of a one-resource global graph is shown in Figure 139.

```
BMC SOFTWARE ----------------GRAPH GLBL CICS --------------------TIME: 14:11:56
COMMAND ===>                                                  CICS ===> CICSPROD

CIC[1]      [2]USER DSPTCH CNT [3]    TC DISPATCH CNT         KC DISPATCH CNT
              ---------------            ---------------         ---------------
CURRENT    6 |***            |    463 |*******        |     6 |***            |
14:00:00   4 |**             |    358 |******         |     4 |**             |
13:45:00  28 |************** |    368 |******         |    14 |********       |
13:30:00   8 |****           |    716 |**********     |     8 |****           |
13:15:00  24 |**[4]*******   |    932 |************** |    18 |*********      |
13:00:00   1 |*              |    479 |*******        |     1 |*              |
12:45:00  10 |*****          |    84  |*              |    10 |*****          |
12:30:00  12 |******         |    628 |**********     |    10 |*****          |
12:15:00   6 |***            |    379 |******         |     5 |***            |
12:00:00  22 |***********    |    126 |**             |    19 |***************|
              ---------------            ---------------         ---------------
```

Figure 139. Sample One-Resource Global Graph

[1] The time each sample was taken.

[2] Values plotted for previous intervals. The top value represents the most current interval and is updated with real-time data.

Note: The interval is set through the CMRSOPT GPERIOD option and can be from 2 to 30 minutes long (see the *MAINVIEW for CICS Customization Guide* for more information).

[3] Field title.

[4] Threshold level indicators.

A message is displayed if there is no data for the resource.

Multiple-Resource Graph

A multiple-resource graph shows multiple resources over a single time period. A multiple-resource graph is displayed when:

- A generic resource name is requested. In this case, up and down scrolling may be used to display resources not shown on the current display. Up (UP T) and down (DOWN T) scrolling to other time periods is also provided.

Graph displays include from one to six graphs, depending on the number of data fields selected.

An example of a multiple-resource graph is shown in Figure 140.

```
BMC SOFTWARE ----------------GRAPH TRAN * -----------------------TIME: 14:11:56
COMMAND ===>                                                  CICS ===> CICSPROD

11:32:06 [1]    USE COUNT  [3]            RESPONSE TIME           # LT 1.0 SECS
                -----------  ----          ---------------         ---------------
         [2]

 AMNU    22 |***********    |     126 |**             |    19 |********       |
 CEMT     6 |***            |     379 |******         |     5 |***            |
 CSSF    12 |*****[4]       |     628 |**********     |    10 |*****          |
 CSSN    10 |*****          |     084 |*              |    10 |*****          |
 DOCU     1 |*              |     479 |*******        |     1 |*              |
 EXFL    24 |************   |     932 |************** |    18 |*********      |
 FDOD     8 |****           |     716 |**********     |     8 |****           |
 GOL1    28 |************** |     368 |******         |    14 |********       |
 GRAF     4 |**             |     358 |******         |     4 |**             |
 LFCM     6 |***            |     463 |*******        |     6 |***            |
 MENU     6 |***            |     956 |************** |     6 |***            |
 SUPR    11 |******         |     382 |******         |    11 |*****          |
 TODD     2 |*              |     344 |******         |     2 |*              |
  [5]        ---------------           ---------------         ---------------
```

Figure 140. Sample Multiple Resource Graph

[1] The time sampling took place.

[2] Values plotted for each resource.

[3] Field title.

[4] Threshold level indicators depicted graphically in a horizontal line of asterisks (on monochrome terminals) or green bars (on color terminals). When a value exceeds its threshold, the graphic line is highlighted: asterisks are displayed in high intensity and bars are displayed in yellow.

[5] Resource names.

Primary Graph Commands

The following primary graph commands can be typed on the **COMMAND** line when viewing a graph display:

L ***id***
: Moves the display to the requested resource; for example, L CEMT positions the display to the CEMT entry. The qualifier (select) characters asterisk (*) and plus (+) cannot be used in a graph display.

RECALL or **R**
: Displays the graph command responsible for the current display. The command is preceded by EX to allow it to be altered or re-executed. Refer to "Using Direct GRAPH Command Requests" on page 219.

HELP
: Displays general overview information about the graph or, when the cursor is positioned over one of the graph columns, displays the description of that field.

  The HELP displays contain the GRAPH number associated with each graph.

UP/DOWN
: Scrolls up and down through the graph displays.

  Use the UP and DOWN commands to scroll backward and forward through time intervals being displayed on a multiple-resource graph.

Selecting a Predefined Graph

To view the predefined graphs, select option G, **GRAPHICS**, from the Primary Option Menu. The Graph Master Menu appears, as shown in Figure 141.

```
BMC SOFTWARE --------------- GRAPH MASTER MENU ---------------- Time: 11:11:11
COMMAND ===>                                                 CICS ===> CICSPROD

User Definable Graphs
  U  USER GRAPHS  - User Definable Graphs

Global Level Graphs
  1  CICS         - Global CICS System Analysis
  2  SYSTEM       - Global CICS Transaction Summary
  3  SERVICE      - Service Level Analysis
  4  STORAGE      - CICS Storage Utilization

Resource Level Graphs
  5  TRANSACTION  - Graphs by Transaction ID
  6  TERMINAL     - Graphs by Terminal ID
  7  4th GLs      - Graphs by 4th GL Program ID
  8  B.M.S.       - Graphs by BMS Map Set Name
  9  PSBS         - Graphs by DL/I PSB Name
 10  FILES        - Graphs by File or Database ID
```

Figure 141. Graph Master Menu

Each option invokes a set of graphs representing real-time data corresponding to the graph areas discussed previously. Once a predefined graph is displayed, other graphs (as listed below for each area) may be displayed using right and left scrolling.

The graph area and the set of predefined graphs are shown in the following list:

- Global CICS Systems Analysis - Task Usage

  Option 1, CICS, of the Graph Master Menu invokes the Global CICS Graphs Menu, whose options correspond to the following data items:

  1 - DFH General CICS data
  2 - MVS Operating system data
  3 - PGC CICS paging data
  4 - RAT CICS CPU overhead ratios
  5 - TPS Global CICS task breakdown
  6 - USR User applications data

Figure 142 presents a graph showing CICS dispatch activity, which can be viewed by selecting Option 1, **DFH**.

```
BMC SOFTWARE ----------------GRAPH GLBL CICS ------------------- TIME: 14:11:56
COMMAND ===>                                                 CICS ===> CICSPROD

CICS          USER DSPTCH CNT          TC DISPATCH CNT         KC DISPATCH CNT
              ---------------          ---------------         ---------------
CURRENT    6 |***            |    463 |*******        |     6 |***            |
14:00:00   4 |**             |    358 |******         |     4 |**             |
13:45:00  28 |************** |    368 |******         |    14 |********       |
13:30:00   8 |****           |    716 |**********     |     8 |****           |
13:15:00  24 |************   |    932 |************** |    18 |*********      |
13:00:00   1 |*              |    479 |*******        |     1 |*              |
12:45:00  10 |*****          |    84  |*              |    10 |*****          |
12:30:00  12 |******         |    628 |**********     |    10 |*****          |
12:15:00   6 |***            |    379 |******         |     5 |***            |
12:00:00  22 |***********    |    126 |**             |    19 |***************|
              ---------------          ---------------         ---------------
```

Figure 142. Sample Global CICS Graph

- Global CICS Transaction Summary - Terminal-Attached Transactions

  Option 2, SYSTEM, is a summarization of all terminal-attached transactions across the CICS system.

Figure 143 is an example of a graph showing system transaction summarization.

```
BMC SOFTWARE ------------ GRAPH GLBL SYSTEM  ------------------ TIME: 16:25:26
COMMAND ===>                                                 CICS ===> CICSPROD

SYSTEM          USE COUNT              AVG RESPONSE           AVG CPU TIME
               |....|....|....|       |....|....|....|       |....|....|....|
 CURRENT   2014 *                0.012 *****             0.010 *****
16:15:00   3020 **               0.011 ****              0.008 ***
16:00:01   1500 *                0.012 *****             0.010 *****
15:45:00   3215 **               0.012 *****             0.005 **
15:30:01   3084 **               0.021 *********         0.007 ***
15:15:00   4104 ****             0.025 ***********       0.014 ******
15:00:00   8124 ******           0.025 ***********       0.014 ******
14:45:00  17093 ************     0.030 **************    0.014 ******
```

Figure 143. Sample Global CICS Transaction Summary Graph

- The data items for Global Service Graphs (Option 3) are:
  - Service level counts, as specified in CMRSOPT
  - Service level percentages for the given counts

Figure 144 is an example of a graph showing trend analysis by service levels. To view additional levels or service level percentages, scroll to the right.

```
BMC SOFTWARE ----------------GRAPH GLBL SERVICE----------------- TIME: 14:11:56
COMMAND ===>                                                  CICS ===> CICSPROD

SERVICE       # LT 0.5 SEC            # LT 1.0 SEC            # LT 1.5 SEC
              ---------------         ---------------         ---------------
CURRENT   16 |*******        |      9 |******         |      6 |****           |
14:00:00  14 |******         |      8 |*****          |      1 |**             |
13:45:00  28 |************** |     22 |************** |     14 |********       |
13:30:00  18 |********       |      9 |******         |      8 |****           |
13:15:00  24 |************   |     22 |************** |     18 |*********      |
13:00:00  10 |*****          |      9 |******         |      1 |**             |
12:45:00  14 |******         |     14 |**********     |     10 |*****          |
12:30:00  22 |***********    |     18 |***********    |     10 |*****          |
12:15:00  16 |*******        |      9 |******         |      5 |***            |
12:00:00  22 |***********    |      3 |**             |      1 |**             |
              ---------------         ---------------         ---------------

SERVICE       #LT 2.0 SEC             # LT 2.5 SEC            # LT 3.0 SEC
              ---------------         ---------------         ---------------
CURRENT    0 |               |      0 |               |      0 |               |
14:00:00   3 |***            |      0 |               |      0 |               |
13:45:00   2 |**             |      0 |               |      0 |               |
13:30:00   1 |*              |      0 |               |      0 |               |
13:15:00   3 |***            |      0 |               |      0 |               |
13:00:00   0 |               |      0 |               |      0 |               |
12:45:00   1 |*              |      0 |               |      0 |               |
12:30:00   2 |**             |      0 |               |      0 |               |
12:15:00   3 |***            |      0 |               |      0 |               |
12:00:00   2 |**             |      0 |               |      0 |               |
              ---------------         ---------------         ---------------
```

Figure 144. Sample Global Service Graph

- The data items for Global Storage Subpool Utilization (Option 4) are:
  - CICS subpool high-water marks

  Figure 145 is an example of a graph showing historical analysis by CICS storage subpools with high-water mark data. To view additional subpools, scroll to the right.

```
BMC SOFTWARE ------------ GRAPH GLBL SUBPOOL ------------------ TIME: 09:33:58
COMMAND ===>                                                  CICS ===> CICS3221

 SUBPOOL         % OF CDSA USED         % OF ECDSA USED        % OF ERDSA USED
                |....|....|....|       |....|....|....|       |....|....|....|
  11:30:00  10.0|****          |   20.0|********      |    2.0|*             |
  11:15:00  15.0|******        |   15.0|******        |    2.0|*             |
  11:00:00  30.0|***********   |   45.0|**************|    2.0|*             |
             0.0|              |    0.0|              |    0.0|              |
             0.0|              |    0.0|              |    0.0|              |
             0.0|              |    0.0|              |    0.0|              |
             0.0|              |    0.0|              |    0.0|              |
             0.0|              |    0.0|              |    0.0|              |
             0.0|              |    0.0|              |    0.0|              |
             0.0|              |    0.0|              |    0.0|              |
                |....|....|....|       |....|....|....|       |....|....|....|

 SUBPOOL         % OF UDSA USED         % OF EUDSA USED
                |....|....|....|       |....|....|....|
  11:30:00  30.0|************  |   40.0|************* |
  11:15:00  25.0|**********    |   35.0|************  |
  11:00:00  30.0|************  |   45.0|**************|
             0.0|              |    0.0|              |
             0.0|              |    0.0|              |
             0.0|              |    0.0|              |
             0.0|              |    0.0|              |
             0.0|              |    0.0|              |
             0.0|              |    0.0|              |
             0.0|              |    0.0|              |
                |....|....|....|       |....|....|....|
```

Figure 145. Sample Global Subpool Graph

- For a list of the transaction, terminal, 4GL, BMS, and PSBS data items (Options 5 - 9), refer to the selections available under the user-defined graph options (select U.5 through U.9 from the Primary Option Menu).

  Figure 146 is an example of the graph that is displayed when you select Option 5, Transaction, of the Graph Master Menu. This graph shows comparative response time analysis by transaction ID.

```
BMC SOFTWARE ----------------GRAPH TRAN * ---------------------- TIME: 14:11:56
COMMAND ===>                                                  CICS ===> CICSPROD


11:32:06     USE COUNT                 AVG RESPONSE            # LT SRV LVL
             ---------------         -----------------         ---------------

 AMNU    22 |***********    | 0.126 |**               |    19 |********       |
 CEMT     6 |***            | 0.379 |******           |     5 |***            |
 CSSF    12 |******         | 0.628 |**********       |    10 |*****          |
 CSSN    10 |*****          | 0.084 |*                |    10 |*****          |
 DOCU     1 |*              | 0.479 |*******          |     1 |*              |
 EXFL    24 |************   | 0.932 |**************   |    18 |*********      |
 FDOD     8 |****           | 0.716 |**********       |     8 |****           |
 GOL1    28 |************** | 0.368 |******           |    14 |********       |
 GRAF     4 |**             | 0.358 |******           |     4 |**             |
 LFCM     6 |***            | 0.463 |*******          |     6 |***            |
 MENU     6 |***            | 0.956 |**************   |     6 |***            |
 SUPR    11 |******         | 0.382 |******           |    11 |*****          |
 TODD     2 |*              | 0.344 |******           |     2 |*              |
             ---------------         -----------------         ---------------
```

Figure 146. Sample Transaction Graph

- The data items for files (Option 10) are:
  - I/O Time (AVG and TOT)
  - I/O Count
  - Lock analysis

  Figure 147 is an example of a graph showing file I/O time analysis.

```
BMC SOFTWARE ----------------GRAPH FILE * ---------------------- TIME: 14:11:56
COMMAND ===>                                                  CICS ===> CICSPROD


11:32:06        AVG I/O TIME                 TOTAL I/O TIME
               -----------------------       --------------------------
ACCTMSTR 0.020 |**                   | 0.983 |*****                   |
DFHRPL   0.026 |***                  | 2.487 |************            |
DFHTEMP  0.037 |****                 | 1.299 |*******                 |
DFHUECB  0.040 |*****                | 1.022 |*****                   |
EDITFLE  0.101 |***************      | 1.119 |******                  |
PAYROLL  1.003 |********************| 5.300 |************************|
RPGINPT  0.000 |                     | 0.000 |                        |
TESTDATA 0.060 |********             | 0.922 |*****                   |
UPTK05   0.000 |                     | 0.000 |                        |
               |                     |       |                        |
               |                     |       |                        |
               |                     |       |                        |
               |                     |       |                        |
               |                     |       |                        |
               |                     |       |                        |
               |                     |       |                        |
               |                     |       |                        |
               -----------------------       --------------------------
```

Figure 147. Sample File Graph

Selecting a User-Defined Graph

Option U, USER GRAPHS, on the Graph Master Menu invokes the User Defined Graph Selection menu shown in Figure 148.

```
BMC SOFTWARE ------------ USER DEFINED GRAPH SELECTION -------- TIME: 19:01:39
COMMAND ===>                                                CICS ===> CICSPROD


 Select one of the following

Global Level Graphs
  1  Field list for Global CICS System Analysis
  2  Field list for Global Transaction Summary
  3  Field list for Service Level Analysis
  4  Field list for CICS Storage Utilization

Resource Level Graphs
  5  Field list for Graphs by Transaction ID
  6  Field list for Graphs by Terminal ID
  7  Field list for Graphs by 4th GL Program ID
  8  Field list for Graphs by BMS Map Set Name
  9  Field list for Graphs by DL/I PSB Name
 10  Field list for Graphs by File or Database ID
```

Figure 148. User Defined Graph Selection Menu

The User Defined Graph Selection menu presents a selection list for each of the graph areas discussed previously.

To create a user-defined graph:

1. Select a topic from the User Defined Graph Selection menu by typing the selection number on the **COMMAND** line.
2. Press Enter.

   A field selection list, similar to the one in Figure 149 on page 218, appears for the topic you specified.
3. Select a field by typing either an alphabetic character, such as **s**, or a number between 1 and 6 in front of the field description. You may select up to six fields to be included in your graph.

   When you use characters, fields are shown on the graph in the order they appear in the selection list. When you use numbers, fields are shown on the graph in the numerical order you specify.

   Note: You may not mix characters and numbers.
4. Press Enter.

The example shown in Figure 149 on page 218 is a graph for global CICS data. For Options 5 through 10, which support resource specification, the selection list also contains a resource input field.

```
BMC SOFTWARE ------------ GLOBAL CICS SELECTION --------------- TIME: 19:06:47
COMMAND ===>                                                  CICS ===> CIC70CSR



 Select up to 6 fields from the list below

 _  TRANSACTIONS/SEC       _  TRANSACTION COUNT      _  AVG DSA H.W.M
 _  TRANS/SEC(TERMINAL)    _  TRANS COUNT(TERMINAL)  _  PCT TERMINAL TRANS
 _  CICS CPU PERCENTAGE    _  AVG CPU / CICS WAIT    _  AVG CICS WAIT TIME
 _  USER CPU PERCENTAGE    _  USER DISPATCH PERCENT  _  USER CPU RATIO
 _  KCP CPU PERCENTAGE     _  KCP DISPATCH PERCENT   _  KCP CPU RATIO
 _  TCP CPU PERCENTAGE     _  TCP DISPATCH PERCENT   _  TCP CPU RATIO
 _  JCP CPU PERCENTAGE     _  JCP DISPATCH PERCENT   _  JCP CPU RATIO
 _  USER DISPATCH COUNT    _  KCP DISPATCH COUNT     _  TCP DISPATCH COUNT
 _  JCP DISPATCH COUNT     _  MVS SRB PERCENTAGE     _  NONCICS CPU AVAILABLE
 _  TOTAL PAGEIN COUNT     _  PAGEIN/SECOND          _  TOTAL PAGEOUT COUNT
 _  PAGEOUT/SECOND
```

Figure 149. Global CICS Selection Display

The following primary commands can be typed on the **COMMAND** line in the selection list:

SELECT *name* or **S *name***

Selects a previously saved selection list. The ***name*** value can be specified as either *xxx*, in which case it will be prefixed by CMRGS, or as a complete name, such as RESPONSE. The selection list is read from the user profile data set.

SAVE *name*

Saves the current selection list into the user profile data set for later retrieval. Name is specified as described in SELECT.

REPLACE *name*

Saves the current selection list into the user profile data set for later retrieval. Replace must be used when the member to be saved already exists in the user profile data set. Name is specified as described in SELECT.

REVIEW

Displays a scratch pad area. This scratch pad can be used for storing up to 20 graph set names and short descriptions. From the REVIEW list, a given selection list can be retrieved by typing its name on the **COMMAND** line. The REVIEW list can be updated by typing the UPDATE command while viewing it. This changes the display to an input display allowing over-typing of the names and descriptions.

Pressing Enter changes the display back to an output display and saves the changes in the user profile data set.

Pressing END returns to the output display without saving the changes.

HELP

Displays a general overview of the use of the selection menu or, if you position the cursor over one of the field descriptions, displays the full description of that field. HELP provides the number associated with the selected graph.

Using Direct GRAPH Command Requests

Graph requests also can be issued by using the EXEC command or by specifying the requests in the CYCLE SETUP application (refer to Chapter 17, “CYCLE SETUP Option” on page 439). In these cases, the command can be specified in either abbreviated or extended format.

Graph Commands

The commands in Table 12 are supported for GRAPH requests. These commands give the same result as accessing the graphs through the menus.

The asterisks can be replaced by resource names. Lowercase letters are optional.

Table 12. GRAPH Commands

Command	Equivalent Menu Option
EXec Graph Glbl Cics	G.1
EXec Graph Cics	G.1
EXec Graph Glbl System	G.2
EXec Graph System	G.2
EXec Graph	G.2
EXec Graph Glbl SErvice	G.3
EXec Graph SErvice	G.3
EXec Graph Glbl SUbpool	G.4
EXec Graph SUbpool	G.4
EXec Graph Tran *	G.5
EXec Graph TErm *	G.6
EXec Graph Panl *	G.7
EXec Graph Bms *	G.8
EXec Graph Maps *	G.8
EXec Graph PSbs *	G.9
EXec Graph File *	G.10

After accessing these graphs, you can scroll left and right to view the various fields available.

Extended Graph Commands

There are two extended command formats:

- **GRAPH GLBL** ***area nnn nnn nnn nnn nnn nnn***

  where

area	Designates CICS, SYSTEM, SERVICE, or SUBPOOL.
nnn	Represents up to six applicable fields for each area. Leading zeros are required.

- **GRAPH** ***area resource nnn nnn nnn nnn nnn nnn***

  where

area	Designates TRAN, TERM, PANL, MAPS, PSBS, or FILE.
resource	Specifies the resource(s) to be selected; may contain generic specifications.
nnn	Represents up to six applicable fields for the monitor record type of the selected resources. Leading zeros are required.

Two methods exist for determining the extended graph command:

- Using RECALL. The graph command used to create a given graph request can be viewed by typing the RECALL command while viewing the display. The displayed graph can be the result of either a predefined or a user-defined graph selection. The graph command can be used as a sample for creating new graphs.
- Using offline creation. Select the command format as listed above and determine the applicable values. Graph fields are listed in Appendix A, “Cross-References for Graph Fields” on page 453. Each field is listed alphabetically and identifies its field number and the area to which it applies. Field numbers also are included in the online field descriptions displayed when you view help.

Chapter 10. History Views

The history views display information about transactions executed during a user-defined time period and context. The time period can be anything from the last five minutes to a specific hour some days ago. The context can be any BBI-3 context. For each executed transaction, the data extractor records essential information such as the transaction's date and time, response time, CPU usage, file I/O counts, and resource consumption. The information displayed can also be restricted to data matching user-defined filter conditions.

The extensive amount of historical data captured is organized in ways that make it easy to quickly locate the source of system performance problems. Suspend times, for example, are broken into thirteen distinct measurements which, in turn, are further subdivided. Dispatch suspend time, to take one example, measures the amount of time a task waits for first dispatch, the amount of time spent waiting for Max Tasks, and the amount of time spent waiting for TCBs, among other things.

In this chapter, information is organized as follows:

- **Navigating History Views**

  Describes how SSI contexts affect history detail views. This section also describes how to navigate detail views using the Transaction Navigation and File Navigation arrows. See "Accessing Historical Transactions" on page 225.

- **History Selection Criteria**

  Parameter sets are filters you can apply to historical data to restrict the records displayed to only those of interest to you. This section describes how to create parameter sets and apply them to historical data. See "History Selection Criteria" on page 230.

- **History Parameter Set Views**

  This section describes the views used to create and apply parameter sets. See "History Parameter Set Views" on page 246.

- **History Tabular View**

  This section describes the views that display summary information for each history record. See "Tabular History Views" on page 254.

- **History Detail Views**

  Detail views provide a wealth of information for the selected transaction, including an analysis of the transaction response time. See "History Detail Views" on page 259.

- **History File Views**

  These views provide information about the CICS files, database files, and pseudo files accessed by transactions. See "History File Views" on page 289.

Table 13 gives a brief description of each history view and shows you where to find more information.

Table 13. MAINNVIEW for CICS History Views

View Name	Description
CHIST	This tabular view displays general history information. See page 254.
CHISTQ	The primary Quick menu for history views. See page 247.
CHISTZ	Provides summarized history information. See page 255.
CHISTUOW	This tabular view provides general history information. Unlike the CHIST, view it orders task information by the Business Unit of Work Identifier (BUOWID).
CHISTD	This detail view is the primary detail view for history views. See page 259.
CHISTDS	This detail view displays suspend time information. See page 260.
CHISTDE	This detail view displays elapsed time information. See page 262.
CHISTDC	This detail view displays information about CPU usage. See page 264.
CHISTDF	This detail view displays information about FC usage. See page 265.
CHISTDD	This detail view displays information about DB2 usage. See page 266.
CHISTDQ	This detail view displays MQ Series statistics. See page 267.
CHISTDL	This detail view displays information about DBCTL usage. See page 268.
CHISTDPG	This detail view displays information about programs usage. See page 269.
CHISTDTM	This detail view displays information about terminal usage. See page 270.
CHISTDST	This detail view displays information about storage usage. See page 271.
CHISTDTQ	This detail view displays information about TS/TD usage. See page 272.
CHISDBT	This detail view displays information about BTS usage. See page 274.
CHISTDFP	This detail view displays information about FEPI usage. See page 275.
CHISTDWB	This detail view displays information about Web usage. See page 276.
CHISTDTC	This detail view displays information about TCP/IP usage. See page 277.

Table 13. MAINNVIEW for CICS History Views

View Name	Description
CHISTDJV	This detail view displays information about Java usage. See page 278.
CHISTDS1	This detail view displays information about dispatch suspend times. See page 280.
CHISTDS2	This detail view displays information about communication suspend times. See page 281.
CHISTDS3	This detail view displays information about file suspend times. See page 281.
CHISTDS4	This detail view displays information about DB2 suspend times. See page 281.
CHISTDS6	This detail view displays information about TS suspend times. See page 281.
CHISTDS7	This detail view displays information about locked suspend times. See page 281.
CHISTDS8	This detail view displays information about synchronization delay times. See page 281.
CHISTDS9	This detail view displays information about user suspend times. See page 281.
CHISTDSA	This detail view displays information about BTS suspend times. See page 281.
CHISTDSB	This detail view displays information about JVM suspend times. See page 281.
CHISTDIO	This detail view displays I/O statistics. See page 281.
CHISTDF1	This detail view displays information about CICS file usage by a specific task. See page 281.
CHISTDF2	This detail view displays information about the first CICS file used by a specific task. See page 284.
CHISTDF3	This detail view displays information about the second CICS file used by a specific task. See page 284.
CHISTDF4	This detail view displays information about the third CICS file used by a specific task. See page 284.
CHISTDF5	This detail view displays information about the fourth CICS file used by a specific task. See page 284.
CHISTDD1	This detail view displays information about the first DB2 plan used by a specific task. See page 285.
CHISTDD2	This detail view displays information about the second DB2 plan used by a specific task. See page 286.

Table 13. MAINNVIEW for CICS History Views

View Name	Description
CHISTDD3	This detail view displays information about the third DB2 plan used by a specific task. See page 286.
CHISTDD4	This detail view displays information about the fourth DB2 plan used by a specific task. See page 286.
CHISTDD5	This detail view displays information about the fifth DB2 plan used by a specific task. See page 286.
CHISTDQ1	This detail view displays information about the first MQ Series queue used by a specific task. See page 287.
CHISTDQ2	This detail view displays information about the second MQ Series queue used by a specific task. See page 288.
CHISTDQ3	This detail view displays information about the third MQ Series queue used by a specific task. See page 288.
CHISTDQ4	This detail view displays information about the fourth MQ Series queue used by a specific task. See page 288.
CHISTDQ5	This detail view displays information about the fifth MQ Series queue used by a specific task. See page 288.
CHFILE	This tabular view displays general information about the files used by a selected task. See page 289.
CHFILEDQ	The Quick menu for history file views. See page 290.
CHFILEZ	This summary view displays general information about the files used by a selected task. See page 290.
CHFILED	This detail view displays information about the files used by a specific task. See page 292.
CHFILEDD	This detail view displays information about the DB2 plans used by a specific task. See page 296.
CHFILEDF	This detail view displays information about the CICS files used by a specific task. See page 293.
CHFILEDQ	This detail view displays information about the MQ Series queues used by a specific task. See page 295.
EZCSHIST	Easy menu for history views.

Accessing Historical Transactions

The history views enable you to drill down from summary information to specific details about a transaction. When the primary tabular view—CHIST—is accessed, records for the current context, interval, and parameter set, if any, (see “History Selection Criteria” on page 230) are displayed. From the CHIST view, you can access detailed information for any transaction.

Navigating History Records

Once a detail view is displayed, Transaction Navigation arrows enable you to display detail information for other records without first having to return to the tabular view. The Transaction Navigation arrows (Next Transaction, Previous Transaction) are hyperlinks you can use to move through the record set. To illustrate how the Transaction Navigation arrows work, we start with a typical CHIST view like the one illustrated in Figure 150. For information about the CHIST view, see “CHIST View” on page 254.

For this example the BBI-3 context was set to “All” and CHIST was accessed without a parameter set being applied, meaning that all records for the current context and interval were returned.

We display the suspend time detail view—CHISTDS—by hyper linking on the **Lcl Task End Time** field. In this instance we use task number 35.

.

```
=CHIST============(ALL======*=======)15MAY2002==12:11=15M===MVCICS===D=1212
Task     CICS    Lcl Task    Lcl Task Tran Response     CPU     Storage  I/O  Term
Num     System   End Date    End Time  ID    Time       Time      HWM   Calls  ID
   26 BCVCD530 15MAY2002  06:27:57 CWBG   0.00707  0.00109    1184     0
   32 BCVCD530 15MAY2002  06:27:57 CSFU   0.01979  0.00216     496     0
   31 BCVCD530 15MAY2002  06:27:57 CRSQ   0.02011  0.00082     496     0
   33 BCVCD530 15MAY2002  06:27:57 CXRE   0.02070  0.00109     496     0
   34 BCVCD530 15MAY2002  06:27:57 CLS1   0.00714  0.00082    1280     0
   35 BCVCD530 15MAY2002  06:27:57 CLS1   0.00730  0.00030    1280     0
   36 BCVCD530 15MAY2002  06:28:00 FIC2   0.06114  0.00325    3984     0
    7 BCVCD610 15MAY2002  06:28:04 CPLT   5.75534  0.08117   16304     0
   25 BCVCD610 15MAY2002  06:28:05 FIC2   0.04682  0.00261    4704     0
   23 BCVCD610 15MAY2002  06:28:05 CWBG   0.06784  0.00078     688     0
   30 BCVCD610 15MAY2002  06:28:05 CXRE   0.00854  0.00106     688     0
   28 BCVCD610 15MAY2002  06:28:05 CSFU   0.03285  0.00178     688     0
   27 BCVCD610 15MAY2002  06:28:05 CRSQ   0.03307  0.00080     688     0
   31 BCVCD610 15MAY2002  06:28:05 CLS1   0.02502  0.00086     784     0
   29 BCVCD610 15MAY2002  06:28:05 CEJR   0.04045  0.00718     688     0
   32 BCVCD530 15MAY2002  06:28:05 CLS1   0.03226  0.00027     784     0
```

Figure 150. CHIST View—Context ALL

CHISTDS displays suspend time information for the task selected in the CHIST view.

Notice the Transaction Navigation arrows in Figure 151.

```
15MAY2002  12:25:46 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDS=(ALL======BCVCD530)15MAY2002==12:11=15M===MVCICS===D====1
> Target................   BCVCD530
< Task Number...........         35           NOTE: Suspend components may
  Transaction ID........       CLS1                 overlap.  The overlaps
                                                    can cause the total of
  Detach Date (Local)...  15MAY2002                 all the percentages to
  Detach Time (Local)... 06:27:57.0                 be greater than 100%.

  Task Response Time....    0.00730
  Total Suspend Time....    0.00702
                                                 Component Portion of
  Suspend Component.....     Time   Count  %       Total Suspend Time
  ----------------------  --------- ----- --- 0<----------50---------->100
  Dispatch..............    0.00102     3  15
  Communications........    0.00000     0   0
  File..................    0.00000     0   0
```

Figure 151. CHISTDS Detail View with Transaction Navigation Arrows Displayed

By using the Transaction Navigation arrows we can display detail information for additional transactions without first having to return to the CHIST view. Transaction Navigation arrows are found on most history detail views.

Clicking on the **Next** arrow displays suspend time information for task number 36, as shown in Figure 152. If we had clicked on the **Previous** arrow, information for transaction 34 would be displayed.

```
15MAY2002  12:26:46 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDS=(ALL======BCVCD530)15MAY2002==12:11=15M===MVCICS===D====1
> Target................   BCVCD530
< Task Number...........         36           NOTE: Suspend components may
  Transaction ID........       FIC2                 overlap.  The overlaps
                                                    can cause the total of
  Detach Date (Local)...  15MAY2002                 all the percentages to
  Detach Time (Local)... 06:28:00.0                 be greater than 100%.
```

Figure 152. CHISTDS View Displaying Information for Task 36

As you can see, the Transaction Navigation arrows enable us to move back and forth through the record set. The record set consists of the records for the current target, the target for the transaction originally selected in the CHIST view.

For example, if we click **Next** again, information for task 32 is displayed, not task 7 as you might expect when reviewing Figure 150 on page 225.

```
             15MAY2002  12:27:12 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS-
-----------
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDS=(ALL======BCVCD530)15MAY2002==12:11=15M===MVCICS===D====1
> Target................   BCVCD530
< Task Number..........          32          NOTE: Suspend components may
  Transaction ID........       CLS1                overlap.  The overlaps
                                                   can cause the total of
  Detach Date (Local)...  15MAY2002                all the percentages to
  Detach Time (Local)... 06:28:05                  be greater than 100%.
```

Figure 153. CHISTDS View Displaying Information for Task 32

Looking at the display for CHIST in Figure 150 on page 225 we see that although task 7 is listed after task 36, its target, indicated in the **CICS System** field, is not the same as that for task 36—BCVCD530. The next task with the same target is task 32.

When using the Transaction Navigation arrows to display detail records, only records with the same target are displayed.

If instead of a context of All we had set the context to a specific CICS region, records would be displayed in the same order as the tasks are listed in the CHIST view.

Note: If you use the Back—PF3—key to leave a detail view after using the Transaction Navigation arrows, you are returned to the tabular view location where you started, not where you stopped reviewing detail records.

Navigating Transaction I/O Records

The CHISTDIO view displays information about files used by the selected transaction. Like the other history detail views, it provides Transaction Navigation arrows that enable you to display other detail records. For information on the CHISTDIO view, see “CHISTDIO View” on page 281.

CHISTDIO displays information about the first five files used by the transaction. If more than five files are used, the **Files Used by Txn** field can be used to hyperlink to the CHFILE view where information about them can be reviewed.

You can display additional details about a file by clicking on one of the **Expand data for ==>** hyperlinks.

```
16MAY2002  11:12:28 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHIST====CHISTDIO(BCVDVPC==BCVCD530)16MAY2002==11:09:57====MVCICS===D====1
> Target...............   BCVCD530
< Task Number..........         43
  Transaction ID.......       PFIX

  Detach Date (Local)..  16MAY2002
  Detach Time (Local).. 04:11:46.0

  Files Used by Txn....         22
  Expanded Data........        YES

                            Name     Type    Count     Time    Avg Time
                         -------- -------- ------- --------- ---------
  . Expand data for ==>    CMRVS01 CICS FCT     975    1.3342   0.00137
  . Expand data for ==>    CMRVS02 CICS FCT     895    1.6947   0.00189
  . Expand data for ==>    CMRVS03 CICS FCT     975    1.3494   0.00138
  . Expand data for ==>    CMRVS04 CICS FCT     975    1.2883   0.00132
  . Expand data for ==>    CMRVS05 CICS FCT     975    1.3725   0.00141
```

Figure 154. CHISTDIO View with CICS File Type records Displayed

The view actually displayed depends on the file type and selected row. If the file was a CICS file type, the view displayed will be CHISTDF*n* where *n* represents the hyperlinked row. For example, if the third **Expand data for ==>** hyperlink was used, the displayed view's title would be CHISTDF3. See "CHISTDF1 View" on page 283.

Other views displayed by clicking on **Expand data for ==>** hyperlink are CHISTDD*n* (detail for DB2 plans used by the transaction), and CHISTDQ*n* (detail for MQ Series queues). See "CHISTDD1 View" on page 285 or "CHISTDQ1 View" on page 287 respectively.

Navigating I/O Detail Records

In the same way that you can move through transaction detail records using the Transaction Navigation arrows, you can move through I/O records for the selected transaction by using the File Navigation arrows.

If we hyper link from the first file listed in Figure 154, CHISTDF1 is displayed as shown in Figure 155.

Note the File Navigation arrow.

```
16MAY2002  11:27:15 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1         ALT WIN ===>
 W1 =CHIST====CHISTDF1(BCVDVPC==BCVCD530)16MAY2002==11:09:57====MVCICS===D====1
> Target...........   BCVCD530
< Task Number......          43   I/O Operation    Avg Time Tot Time Count
  Transaction ID...        PFIX ------------------ -------- -------- -----
                                Reads.............
  Detach Date (Lcl)  16MAY2002   Into............   0.0015   0.1270    84
  Detach Time (Lcl) 04:11:46.0   Set.............
                                 For update into.   0.0016   0.1869   116
> File Name........    CMRVS01   For update set..
                                 Next into.......   0.0001   0.0126   101
. File Type........   CICS FCT   Next set........
                                 Next updt into..
  I/O Waits........              Next updt set...
   Time............     1.3342   Prev into.......   0.0001   0.0141   101
   Count...........        975   Prev set........
                                 Prev updt into..
  VOLSER...........              Prev updt set...
   First...........     BAB348 Start browse......   0.0014   0.0014     1
   Second..........            Reset browse......   0.0015   0.0015     1
   Third...........            End browse........                       1
                               Write.............   0.0057   0.5707   100
                               Rewrite...........   0.0036   0.2951    83
                               Rewrite Delete....
                               Delete............   0.1250   0.1250     1
                               Unlock............                     33
                               Other.............

                               Total I/O Requests   0.0023   1.3342   589
```

Figure 155. CHISTDF1 View with CICS File Type Details

You can display details for the next file used by the transaction by using the **Next File** arrow, as shown in Figure 156.

```
16MAY2002  12:14:31 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDF1(BCVDVPC==BCVCD530)16MAY2002==11:09:57====MVCICS===D====1
> Target...........   BCVCD530
< Task Number......         43   I/O Operation    Avg Time Tot Time Count
  Transaction ID...       PFIX ------------------ -------- -------- -----
                                Reads.............
  Detach Date (Lcl)  16MAY2002   Into............   0.0024   0.1992    84
  Detach Time (Lcl) 04:11:46.0   Set.............
                                 For update into.   0.0025   0.2882   116
> File Name........    CMRVS02   For update set..
<                               Next into.......   0.0000   0.0007   101
. File Type........   CICS FCT   Next set........
                                 Next updt into..
  I/O Waits........              Next updt set...
   Time............     1.6947   Prev into.......   0.0000   0.0030   101
   Count...........        895   Prev set........
                                 Prev updt into..
  VOLSER...........              Prev updt set...
   First...........     BAB348 Start browse......   0.0024   0.0024     1
   Second..........            Reset browse......   0.0023   0.0023     1
   Third...........            End browse........                       1
                               Write.............   0.0079   0.7874   100
                               Rewrite...........   0.0027   0.2215    83
                               Rewrite Delete....
                               Delete............   0.1900   0.1900     1
                               Unlock............                     33
                               Other.............

                               Total I/O Requests   0.0029   1.6947   589
```

Figure 156. CHISTDF2 View with CICS File Type Details

Notice the appearance of the **Previous File** and **Refresh Form** buttons.

If the file type changes as you move through the files, the application displays the proper form for that file type. In this example if the next file was a DB2 plan, using the **Next File** arrow would display the CHISTDD2 detail view.

If you use the Next transaction arrow and the first record for the new transaction is of a different type than the one currently displayed, use the **Refresh Form** field "." to display the proper form for that type.

Note: If a transaction uses more than five files, use the **Files Used by Txn** field on the CHISTDIO view to display the CHFILE view where information about additional files can be reviewed.

History Selection Criteria

Several things determine the history records displayed at any given time. In the most direct approach, you set the interval (this determines how far back records are accumulated) and simply open one of the history views. The records displayed depend on the context and maximum record count (maximum record count is discussed in "Defining a Parameter Set Query" on page 237).

Taking the most direct approach may not be appropriate in many instances. The number of tasks for the current interval may number in the thousands, depending on the number of CICS regions in the context. You can limit the number of records displayed by applying a *parameter set* to filter the data.

A parameter set consists of resource filters and an optional query expression. When a parameter set is applied to the records for the current interval and context, it restricts the number of records returned to only those that satisfy the parameter's conditions. Parameter sets are applied when used as a command parameter, or when invoked as a hyperlink. See "Using Parameter Sets to Filter Records" on page 245.

You can create your own parameter set(s) or use the ones shipped with the product. All history views can be invoked with a parameter set specified.

Creating and Modifying Parameter Sets

MAINVIEW for CICS ships with several default parameter sets. You can modify them or use them as templates for entirely new sets. The BDRH$DEF set contains no resource filters or query expressions; if you want to create an entirely new set from scratch, modify this one.

Parameter sets are created and edited with CHISTP and related views. The CHISTP view displays the available sets and enables you to edit and invoke them. User-created parameter sets are stored in the BBIPROF PDS.

Parameter Set Versions

When a history view is accessed for the first time, the parameter sets are read from storage and placed into core memory. If the PDS where sets are normally stored does not exist, the application creates several default parameter sets.

Note: You do not need a PDS in order to work with the default sets. However, any changes you make cannot be saved.

The sets read from storage (or created by the application) are termed "Set" versions. Set versions are written to the PDS when the SAVe command is used.

When a parameter set is edited, a copy of the Set version is created and changes are stored in it. The Set version remains in memory. You can test the parameter set with the copy, discard the copy and revert to the Set version, or make the copy permanent.

Edits are stored in the copy until the SET command is used. The SET command overwrites the Set version with the copy. For information on parameter set commands, see "Summary of Parameter Set Commands" on page 245.

When you invoke a history view using a parameter set, the Set version filters the data unless a copy exists, in which case the copy is used. For example, if you edited the BDRH$UID default set then displayed a history view, the copy—the version with the changes—would filter the data. If the filter worked properly, you could save your changes.

This means that three versions of a set can exist at a given time: the one on the PDS, the Set version, and the copy where edits are stored. This three-tiered structure—PDS, Set, copy—enables you to first try a modified parameter set before making your changes permanent.

Summary of Steps Performed to Create a Parameter Set

A parameter set can contain selection criteria (CICS resources, files, and workloads) and an SQL-like query (QWhere). This section outlines the steps performed to create a parameter set.

1. Display the CHISTP View

The CHISTP view lists the currently defined parameter sets. New parameter sets begin as copies of existing ones. You can use any existing set—not just ones provided by BMC—as a template. If you want to create an entirely new set, one with no predefined attributes, edit the BDRH$DEF set.

For information about displaying and using this view, see “CHISTP View” on page 246.

```
06MAY2002  06:51:29 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTP===========(BCVDVPC==*=======)06MAY2002==06:51:28====MVCICS===D====8
CMD   Name   E          Description             Date      Time
--- -------- - ------------------------------ --------- --------
    BDRH$DEF * Default set                     07MAY2002 08:15:00
    BDRH$ELA   Default elapsed time set        31MAR2002 08:15:00
    BDRH$PRG   Default program set             31MAR2002 08:15:00
    BDRH$RSP   Default response time set       31MAR2002 08:15:00
    BDRH$TRM   Default terminal ID set         31MAR2002 08:15:00
    BDRH$TRN   Default transaction ID set      31MAR2002 08:15:00
    BDRH$UDT   Default user data set           31MAR2002 08:15:00
    BDRH$UID   Default user ID set             31MAR2002 08:15:00
```

Figure 157. CHISTP View With Default Parameter Sets Displayed

2. Create a Name for the New Parameter Set

If you are modifying an existing parameter set, skip this step and proceed to “3. Display the CHISTPQ View by Hyperlinking on the Set Name” on page 232.

In the **Name** field, type over the name of the parameter set you want to use as a template and press Enter. The new name is inserted into the list of parameter sets. By default the list is sorted by name. The new parameter set contains the attributes defined for the typed-over set. The typed-over set is unaffected.

A parameter set name can contain a maximum of eight alpha-numeric characters and must begin with “BDRH.” National characters cannot be used for user-created sets. The “BDRH$” prefix is reserved, it designates a BMC-created parameter set.

Examples of valid names:

BDRHTRA1, BDRH2, BDRHTEST

Examples of invalid names:

TRANX (does not start with BRDH), BDRH12345 (too many characters), BDRH$TH (uses the reserved prefix “BRDH$”), BDRH#123 (uses a national character).

Note: If an invalid parameter set name is typed, an error message will be displayed. A parameter set with an invalid name cannot be created.

3. Display the CHISTPQ View by Hyperlinking on the Set Name

Click on the set name in the **Name** field. The CHISTPQ view is displayed. The CHISTPQ view provides access to views where you can select parameter resources and build filters, among other things.

For information on using the CHISTQ view, see “CHISTPQ View” on page 247.

```
06MAY2002  12:25:56 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTP===CHISTPQ=(BCVDVPC==BCVCD610)06MAY2002==12:12:34====MVCICS===D====1
         CICS History Detail Menu

      Set Name -------------------------->   BDRH$DEF

           History Detail Forms                          Other Menus
    . Query Masks                                      > Target Menu
    . Resource Selection                               > Fullscreen Menu
    . File Masks
    . Workload Masks
    . Error Messages


           Related Views
    . History for Current Interval
    . History for Previous Half Hour
    . History after Set Time
```

Figure 158. CHISTPQ View

4. Define Selection Criteria (Optional)

You can define CICS resource, file, and workload criteria for your filter. When these items are defined, only records containing or using them satisfy the selection criteria.

- To define resource filters (see “Parameter Set Resources” on page 234).
- To define file and workload filters (see “File and Workload Filters” on page 236).

5. Define a Query (Optional)

You can refine your parameter set by adding an SQL-like query to it. To create a query (see “Defining a Parameter Set Query” on page 237).

Note: Modifications to the attributes inherited from the parameter set used as a template for the new set are put into the copy version of the parameter set. The original version—the Set version—remains in memory and is unaffected until the SET command is used. See “Parameter Set Versions” on page 231.

6. Save Your Work (Optional)

If you want to save the changes you made to the parameter set, first use the SET command to replace the Set version with edited copy.

Next, save your work by using the SAVe command. The SAVe command writes the Set version to the PDS.

Note: Modified parameters sets do not have to be set or saved before they can filter data. You can use the a modified parameter set—its temporary version, see “Parameter Set Versions” on page 231—immediately to filter. Parameter sets with errors in them may not be saved to the PDS.

Parameter Set Resources

A large selection of CICS resource filters are available for use in your parameter sets. CICS resource filters are selected in the CHISTPD1 view. Display this view by using the **Resource Selection** hyperlink on the CHISTPQ view.

```
                 History   Resource   Groups

  Set Name   BDRH$RSP

S Resource S Resource S Resource S Resource      Description
- -------- - -------- - --------   -------- --------------------
_ CICS FC  _ RLS      _ CF DatTb _ Pseudo   CICS Files

_ DB2      _ IMS      _ MQSeries _ Any RMI  CICS Attachments

_ ADABAS   _ IDMS     _ DATACOM             Other Data Bases

_ BMS Maps _ IRC      _ LU6      _ FEPI     Communications

_ Sockets  _ 3270Brdg _ Doc Temp _ EXCI     Web Related

_ TD       _ TS Main  _ TS Share            TD and TS

_ SAP      _ NATURAL  _ IDEAL               4GL and Applications

_ JAVA     _ BTS      _ CORBA               Appl. Technologies


  Error
```

Figure 159. Resources Displayed in he CHISTPD1 View

Select a resource by typing **S** in the associated **S** field. You may select any number of resources.

Once a selection is made and the Enter key pressed, an edited copy of the Set version of the parameter set is created. You can immediately use the edited copy to invoke another history view.

When a resource is selected, only records that use the resource satisfy the filter condition. If more than one resource is selected, a record satisfies the filter condition if it uses any of them (an OR expression is created).

Note: If more than one type of parameter attribute—CICS resource, file mask, or workload mask—is defined, a record must match at lest one item from each type to satisfy the filter condition. For example, if a parameter set included several CICS resources and several CICS file masks, a record would satisfy the filter condition if it used one (or more) of the CICS resources, *and* one (or more) of the CICS files: (CICS resource 1 OR CISS resource 2) AND (file mask 1 OR file mask 2) AND (Workload 1 OR Workload 2).

Additional resources are available:

- To display CICS File resources, use the **CICS Files** hyperlink.
- To display additional application resources, use the **4GL and Applications** hyperlink.

Additional CICS File Resources—CHISTPD4

The CHISTPD4 view, accessed by using the **CICS Files** hyperlink on the CHISTPD1 view, provides additional CICS file resources for use in your filters.

```
                History   Resource   Groups

  Set Name   BDRH$RSP

S Resource S Resource S Resource S Resource           Description
- -------- - -------- - --------   --------       -----------------
_ CICS     _ RLS      _ CF DatTb _ Pseudo         CICS Files

_ Update   _ FC Other


  Error
```

Figure 160. CICS File Resources Displayed in he CHISTPD4 View

Select a resource by typing **S** in the associated **S** field. You may select any number of resources.

Note: Selections made with this view are grouped with other CICS resource filters—those selected in CHSITPD1 and CHISTPD5 views.

Additional 4GL and Application Resources—CHISTPD5

The CHISTPD5 view, accessed by using the **4GL and Applications** hyperlink on the CHISTPD1 view, provides additional CICS file resources for use in your filters.

```
                        History   Resource   Groups

      Set Name   BDRH$RSP

    S Resource S Resource S Resource S Resource      Description
    - -------- - -------- - --------   -------- --------------------
    _ SAP      _ SAP Dia  _ SAP LRT  _ SAP Post 4GL and Applications

    _ NATURAL  _ IDEAL    _ SUPRA    _ SYSTEM2K

    _ CSP      _ DMS      _ GENEROL  _ MILLENIU

    _ PCS      _ UFO


      Error
```

Figure 161. 4GL and Application Resources Displayed in he CHISTPD5 View

Select a resource by typing **S** in the associated **S** field. You may select any number of resources.

Note: Selections made with this view are grouped with other CICS resource filters—those selected in CHSITPD1 and CHISTPD4 views.

File and Workload Filters

Your filter can include file and workload parameters. File and workload parameters are defined in the CHISTPD2 view. Display this view by using the **File Mask** or **Workload Mask** hyperlinks on the CHISTPQ view.

```
                File and Workload Masks

    Set Name    BDRH$RSP
    Description Default response time set

       Type     Identifier
    ----------- -------------------------------------------------



     Workload
    -----------


    Error
```

Figure 162. File and Workload Mask Information in the CHISTPD2 View

This view also enables you to enter a description for the parameter set. To enter a new description, simply type over the existing one in the **Description** field.

File Masks

To define a file mask, specify the type—CICS, DB2, IMS, MQS—then type the identifier: DD name for a CICS file, queue name for MQS, or plan name for DB2. A maximum of five file masks can be defined.

When a file mask is defined, only records that use the file satisfy the filter condition. If more than one file is defined, a record satisfies the filter condition if it uses any of them.

Note: If more than one type of parameter attribute—CICS resource, file mask, or workload mask—is defined, a record must match at lest one item from each type to satisfy the filter condition. For example, if a parameter set included several CICS resources and several CICS file masks, a record would satisfy the filter condition if it used one (or more) of the CICS resources, *and* one (or more) of the CICS files.

Workload Masks

To define a workload mask, type the workload identifier in the **Workload** field. A maximum of five workload masks can be defined.

When a workload mask is defined, only records that use the workload satisfy the filter condition. If more than one workload is defined, a record satisfies the filter condition if it uses any of them.

Defining a Parameter Set Query

You can refine a parameter set by defining a SQL-like query. Queries are created in the CHISTPD view. Display this view by using the **Query Mask** hyperlink on the CHISTPQ view.

```
                              Selection Query

                  Set Name    BDRH$RSP
                  Description Default response time set
                  View
                  Max Rec
                  Exclude
                  Abend

Con (  Field    Operator                  Data                       )
--- - -------- ----------- ---------------------------------------- -
      RESPONSE >=          0



         Error
```

Figure 163. Query Information in the CHISTPD View

A history query is an SQL-like expression that restricts the data displayed to only those records that satisfy the query expression. A query expression is built with the information defined in the fields shown above. Each line is a complete clause. You can build multi-line expressions by combining clauses with the Boolean operators AND, OR, and NOT. A query can consist of ten lines, to a maximum of 210 characters.

Note: History queries use a subset of QWhere elements. For more information about QWhere expressions, access QWhere help by typing HELP QWHERE on the command line of any windows view.

Summary of Steps Used to Define a Query

1. Optionally, specify a view that will be displayed when the parameter set is invoked by hyperlinking on the Description field on the CHISTPQ view. See “View” on page 240.
2. Optionally, indicate the maximum number of records that can be displayed. See “Max Rec” on page 240.
3. Optionally, specify the maximum number of records to be read that do not match the filter condition. See “Exclude” on page 240.
4. Optionally, specify wither abend conditions will be part of the selection criteria. See “Abend” on page 241.
5. If the expression will consist of an additional clause, type the AND or OR boolean connector in the **Con** field. If the expression will consist of a single line or clause, leave this field blank. If the line will contain a negation clause, type the NOT operator. Boolean operators are described in “Boolean Operators” on page 238.
6. In the **Field** field, type the record field to be evaluated. Available fields are described in “Fields” on page 239.
7. Type a comparison operator in the Operator field. Operators are described in “Operators” on page 239.
8. In the **Data** field, type the value(s) to be compared to the data in the specified field in the history record. Data is valid if it corresponds to the data type specified in the **Field** field.
9. To write your change to the temporary-edited version (see “Parameter Set Versions” on page 231) and make it available for filtering data, press Enter.

After using the Enter key, the application parses the expression to ensure it is a valid query. If any element is invalid, the entry is displayed in red and an asterisk appears in the **Error** field. You can correct your error directly, or hyperlink on the erroneous entry (or the *) to display the error view (CHISTPD3) where information about the error is displayed. See “Errors in Parameter Sets” on page 243 for information about using CHISTPD3.

For more information about creating queries, see “Example Queries” on page 241.

Note: Queries are applied only when the parameter set is invoked by using an appropriate hyperlink on one of the CHISTP-related views, such as **History for the Current Interval** on the CHISTPQ view. When a parameter set is used as a command line parameter, any query it may contain is ignored.

Boolean Operators

History queries provide three boolean operators, or connectors: AND, OR, and NOT.

AND means a record satisfies the expression if both clauses connected by the AND connector are true.

OR means a record satisfies the expression if one or both of the clauses are true.

NOT means a record satisfies the expression if the clause is not true.

See“Example Queries” on page 241 for examples of building multi-line expressions.

Fields

A query compares the data in a record's field specified by the **Field** field to the values in the **Data** field. The fields that can be used in your query are listed in the following table.

Note: The query fields are a subset of the those used in QWhere queries. See the QWhere help for information about QWhere fields and other elements.

Table 14. Query Fields

Field	Description
ELASPED	Elapsed time in seconds for the transaction
PROGRAM	Name of the program associated with the transaction. It may be a generic name.
RESPONSE	Response time in seconds for the transaction
TERMINAL	Terminal ID associated with the transaction
TRANID	Transaction ID for the transaction
USERDATA	Data defined for user-exits
USERID	User ID associated with the transaction

Note: If you want to create an expression using other fields, use the normal BBI-3 query tools to build an expression.

Operators

The following table lists the operators supported for history queries. Operators are specified in the **Operator** field.

Table 15. Comparison operators

Operator	Description
=	Equal. Case is ignored.
==	Equal. Case must match.
<>	Not equal to
NEE	Not exactly equal to. Case must match.
>	Greater than
>=	Greater than or equal to
<	Less than
<=	Less than or equal to
IN	Record is selected if it matches any element in a list of elements

Table 15. Comparison operators

Operator	Description
NOT IN	Record is selected if it does not matches any element in a list of elements
BETWEEN	Record is selected if data in the evaluated field is between to specified values. The first specified value must be lower than the second.
NOT BETWEEN	Record is selected if data in the evaluated field is not between to specified values

Data

When a query is applied, the value(s) in the query's **Data** field is compared to the values in the specified field in the history record. The data must be valid for the field type specified in the **Field** field.

Set Name

The name of the parameter set. The name can be entered in the CHISTP view. To change a name, first create a set using the set you want to rename, then delete the original set.

Description

This view also enables you to enter a description for the parameter set. To enter a new description, simply type over the existing one in the **Description** field.

View

The view displayed when you hyperlink on the **Description** field on the CHISTPQ view. By default, the CHIST view is displayed.

Note: If you use a parameter set with this attribute set as a command parameter to display a view other than the one defined, this field is ignored.

Max Rec

The maximum number of records that will be displayed. Once reached, no further records records are read.

Note: This number is used for each CICS region in the context. For example, a value of 500 when applied to a target consisting of six CICS regions means 3000 records could be returned. (Another temporary buffer is filled with approximately 100 records which could affect the total number of records returned.)

Exclude

The maximum number of records that will be read that do not match the filter condition. Once reached, no additional records are read.

Abend

Indicates whether abend conditions will be part of the filter.

YES means only transactions that abend will be displayed.

NO means only records that did not abend will be displayed.

Blank (the default value) means records that match other criteria are displayed.

Example Queries

In this section we illustrate how to create a parameter set by building a query that locates transactions with poor response time that are also associated with a specific terminal ID.

We could build a new query from scratch by using the BDR$DEF default query set as a template but because response time is a key element in our query, we start with the default response time parameter set—BDRH$RSP.

To create the sample query

1. Display the CHISTP view.
2. Enter a name for the new query by typing over BDRH$RSP, then press Enter. The new name is displayed. See page 232 for information about naming parameter sets.
3. Place the cursor on the new name and press Enter to display the CHISTPQ view.
4. Hyperlink on the **Query Mask** field. The CHISTPD view is displayed, as shown in Figure 164.

```
                                        Selection Query

                  Set Name    BDRHTEST
                  Description Sample query
                  View
                  Max Rec
                  Exclude
                  Abend

  Con (  Field    Operator                  Data                      )
  --- - -------- ----------- ---------------------------------------- -
        RESPONSE >=          0



          Error
```

Figure 164. Default Query for BDRH$RSP

   The Response field used by BDRH$RSP contains the response time in seconds for a transaction.

5. By changing the operator to > and specifying a time, we limit the number of records returned. In this instance we change the Data field to .11 (seconds). Meaning only transaction with a response time greater than .11 seconds satisfy the query.

```
                                          Selection Query

                 Set Name    BDRHTEST
                 Description Sample query
                 View
                 Max Rec
                 Exclude
                 Abend

Con (  Field    Operator                  Data                      )
--- - -------- ----------- ---------------------------------------- -
      RESPONSE >           .11



        Error
```

Figure 165. Query with Response Time Greater Than .11

Running the query now returns about three-quarters of the records originally returned in our test system. Still too many records.

6. We can refine our query by restricting it to records originating with a specific terminal ID. We add another clause and connect it to the first one with the AND boolean connector.

```
                                          Selection Query

                 Set Name    BDRHTEST
                 Description Sample query
                 View
                 Max Rec
                 Exclude
                 Abend

Con (  Field    Operator                  Data                      )
--- - -------- ----------- ---------------------------------------- -
      RESPONSE >           .11
AND   TERMINAL =           L*


        Error
```

Figure 166. Query with Response and Terminal ID

Running the query now returns fewer records, but unfortunately the transaction we are interested in is not among them. We know the transaction had poor response time and originated at the terminal we specified. Perhaps it had a specific transaction ID.

7. We further refine the query with another clause, using the OR boolean operator this time.

```
                                                Selection Query

                    Set Name    BDRHTEST
                    Description Resp .11 term L cemt
                    View
                    Max Rec
                    Exclude
                    Abend

    Con (  Field    Operator                  Data                        )
    --- - -------- ----------- ---------------------------------------- -
        ( RESPONSE >           .11
    AND   TERMINAL =           L*                                        )
    OR    TRANID               cemt

            Error
```

Figure 167. Finished Query

This query means return all records with:

```
response time greater than .11 AND terminal ID equals L* OR transaction ID equals cemt
```

Its equivalent QWhere expression looks like this:

```
((H6ERESP > .11) AND (H6ETMID = L*)) OR (H6ETRID = CEMT)
```

8. Finally, we change the description to something more meaningful.

Errors in Parameter Sets

As you use the parameter set views, you are notified of errors introduced as they are made. An erroneous element is displayed in red text and the **Error** field for the view displays an *. Clicking on the element in error or the asterisk displays the error view—CHISTPD3—where you can review information about the error and correct it.

.

```
                                Error Status

    Set Name......... BDRH$RSP
    Set Description.. Default response time set

    Field In Error... Data row 1

    Data In Error.... a

    Error Description This field, a, is invalid at position 1. This field is
                      a number and may only contain numeric characters and an
                      optional decimal point.The indicated position does not
                      contain valid data.
```

Figure 168. Error Information in the CHISTPD3 View

The **Error Description** field usually displays enough information about the problem that it can be corrected.

To correct an error:

1. Type over the data in the **Data In Error** field. Optionally, you can return to the previous view and correct the error there.
2. Press Enter. If the problem is fixed, a message informing you there are no errors is displayed. If new errors are introduced or there are additional ones, the data is displayed along with an appropriate message.

Default Parameter Sets

The application contains several parameter sets. Each one contains different query, except BDRH$DEF which is empty. Although these parameter sets are useful in themselves, they are designed primarily to be used as templates for user-defined parameter sets.

The default sets are:

BDRH$DEF	Empty set
BDRH$ELA	Elapsed time set
BDRH$PRG	Program set
BDRH$RSP	Response time set
BDRH$TRM	Terminal ID set
BDRH$TRN	Transaction ID set
BDRH$UDT	User data set
BDRH$UID	User ID set

See page 232 for information about naming parameter sets.

Note: The default sets are built by the application. If they do not exist in PDS form, they are automatically rebuilt.

Deleting Parameter Sets

A parameter set can be deleted by using the DELete command in the CHISTP view. Deleting a user-created parameter set removes it from the PDS. Deleting a default parameter set removes it from the PDS (if it had user-modifications) but the original default set will be automatically recreated by the application.

If you want to restore a default set that you have modified (instead of using as a template for an entirely new set) to its original values, simply delete the parameter set. It will be removed from the PDS and the original version restored.

Summary of Parameter Set Commands

The following table lists the commands used to create and modify parameter sets.

Table 16. Parameter Set Commands

Command	Description
SET	This line command discards the current Set version and transfers the edited copy to the Set version.
SAVe	This line command writes the Set version of the selected parameter set to the PDS.
Remove	Removes all temporary-edited versions from memory. Entered on the Command line.
Reload	Removes all parameter sets from memory (Set and temporary-edited versions) and reloads them from the PDS. Entered on the Command line
DELete	This line command deletes the selected parameter set from the PDS.

Using Parameter Sets to Filter Records

A parameter set can be invoked by

- Using the parameter set name as a parameter for the command used to display a history view.

Note: Parameter sets are not invoked when you access CHISTP or any of the related views, that is, the views used to create and modify parameter sets.

- Using the **Description** (of the parameter set) hyperlink on the any of CHISTP-related views.
- Using one of the **Related Views** hyperlinks on the CHISTQ view:

  The **History for Current Interval** hyperlink applies the parameter set to transactions generated during the current interval. By default, an interval is fifteen minutes. Because intervals begin at midnight for the current day, the current interval covers the period from the current instant to the beginning of the current interval. Intervals are set with the IRRI parameter in the BBPARM member BBIISP00. Intervals must be evenly divisible into 1440.

  The **History for Previous Half Hour** hyperlink applies the parameter set to transactions generated during the previous half-hour.

  The **History after Set Time** hyperlink displays the Set Time Frame window where you can specify a duration ending at any point and lasting any length of time. The information specified in this window can also be typed on the Command line by using the Time command. See *Using MAINVIEW* for information about using the Time command.

Note: Queries are applied only when the parameter set is invoked by using a hyperlink, such as **History for the Current Interval** on the CHISTPQ view. When a parameter set is used as a command line parameter, any query it may contain is ignored.

Once invoked, a parameter set continues to filter data until another parameter set is invoked or the BBI-3 session is closed. If you open several windows, each can have its own parameter set.

Note: The way history parameter sets persist in memory differs from the way other parameters typically affect BBI-3 views. Instead of being discarded when the view that uses them closes, history parameters continue to be applied to other history views until the conditions described above are met.

History Parameter Set Views

CHISTP View

To display parameter sets, perform one of the following:

- Hyperlink from the EZCSHIST view using the **History Parameters** hyperlink
- Issue the command

  CHISTP [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTP view appears, as shown in Figure 169.

```
06MAY2002  06:51:29 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTP===========(BCVDVPC==*=======)06MAY2002==06:51:28====MVCICS===D====8
CMD   Name   E          Description             Date      Time
--- -------- - ------------------------------ --------- --------
    BDRH$DEF * Default set                     07MAY2002 08:15:00
    BDRH$ELA   Default elapsed time set        31MAR2002 08:15:00
    BDRH$PRG   Default program set             31MAR2002 08:15:00
    BDRH$RSP   Default response time set       31MAR2002 08:15:00
    BDRH$TRM   Default terminal ID set         31MAR2002 08:15:00
    BDRH$TRN   Default transaction ID set      31MAR2002 08:15:00
    BDRH$UDT   Default user data set           31MAR2002 08:15:00
    BDRH$UID   Default user ID set             31MAR2002 08:15:00
```

Figure 169. CHISTP View

Usage Notes

- Clicking on an item in the **Name** column displays the CHISTPQ view which enables you to modify the parameter set.
- Clicking on a hyperlink in the **Description** column displays the primary history view CHIST with data filtered by the selected parameter set.
- The **Date** and **Time** fields indicate when the parameter set was last saved to a PDS.
- An asterisk “*” in the **E** field indicates errors in the parameter set. You can click on the * to hyperlink to the error view--CHISTPD3.
- For information about creating a new parameter set, see “Creating and Modifying Parameter Sets” on page 231.

- For information about available commands, see “Summary of Parameter Set Commands” on page 245.

Hyperlinks

The default hyperlinks defined for the CHISTP view are as follows:

Field	Data Displayed
Name	CHISTPQ
Description	CHIST
E	CHISTPD3

CHISTPQ View

To display history parameters Quick menu, perform one of the following:

- Hyperlink from the CHISTP view using the **Name** field
- Issue the command

  CHISTPQ [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTPQ view appears, as shown in Figure 170.

```
06MAY2002  12:25:56 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTP===CHISTPQ=(BCVDVPC==BCVCD610)06MAY2002==12:12:34====MVCICS===D====1
         CICS History Detail Menu

      Set Name -------------------------->   BDRH$DEF

           History Detail Forms                          Other Menus
    . Query Masks                                      > Target Menu
    . Resource Selection                               > Fullscreen Menu
    . File Masks
    . Workload Masks
    . Error Messages


           Related Views
    . History for Current Interval
    . History for Previous Half Hour
    . History after Set Time
```

Figure 170. CHISTPQ View

Usage Notes

You can filter data using the selected parameter set by using one of the **Related Views** hyperlinks:

The **History for Current Interval** hyperlink applies the parameter set to transactions generated during the current interval. By default, an interval is fifteen minutes. Because intervals begin at midnight for the current day, the current interval covers the period from the current instant to the beginning of the current interval. Intervals are set with the IRRI parameter in the BBPARM member BBIISP00. Intervals must be evenly divisible into 1440.

The **History for Previous Half Hour** hyperlink applies the parameter set to transactions generated during the previous half-hour.

The **History after Set Time** hyperlink displays the Set Time Frame window where you can specify a duration beginning at any point and lasting any length of time. The information specified in this window can also be typed on the Command line by using the Time command. See *Using MAINVIEW* for information about using the Time command.

Hyperlinks

The default hyperlinks defined for the CHISTPQ view are as follows:

Field	Data Displayed
Query Mask	CHISTPD view
Resource Selection	CHISTPD1 view
File Masks	CHISTPD2 view
Workload Masks	CHISTPD2 view
Error Messages	CHISTPD3 view
History for Current Interval	CHIST view
History for Previous Half Hour	CHIST view
History after Set Time	Set Time Frame window
Target Menu	EZCREGN Easy menu
Fullscreen Menu	Primary Option Menu

CHISTPD View

To display query parameters, perform one of the following:

- Hyperlink from the CHISTPQ view using the **Query Mask** field
- Issue the command

  CHISTPD [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTPD view appears, as shown in Figure 171.

```
07MAY2002  11:08:46 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTP===CHISTPD=(BCVDVPC==BCVCD610)07MAY2002==11:08:42====MVCICS===D====1
                               Selection Query

                   Set Name    BDRH$RSP
                   Description Default response time set
                   View
                   Max Rec
                   Exclude
                   Abend

    Con (  Field    Operator                 Data                        )
    --- - -------- ----------- --------------------------------------- -
          RESPONSE >=          0












            Error
```

Figure 171. CHISTPD View

Usage Notes

For information about creating queries, see “Defining a Parameter Set Query” on page 237.

Hyperlinks

The default hyperlinks defined for the CHISTPD view are as follows:

Field	Data Displayed
Set Name	CHISTPQ

CHISTPD1 View

To display resource parameters, perform one of the following:

- Hyperlink from the CHISTPQ view using the **Query Mask** field
- Issue the command

  CHISTPD1 [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTPD1 view appears, as shown in Figure 172.

```
07MAY2002  11:10:34 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTP===CHISTPD1(BCVDVPC==BCVCD610)07MAY2002==11:10:29====MVCICS===D====1
                  History   Resource   Groups

      Set Name   BDRH$RSP

    S Resource S Resource S Resource S Resource      Description
    - -------- - -------- - --------   -------- --------------------
    _ CICS FC  _ RLS      _ CF DatTb _ Pseudo   CICS Files

    _ DB2      _ IMS      _ MQSeries _ Any RMI  CICS Attachments

    _ ADABAS   _ IDMS     _ DATACOM             Other Data Bases

    _ BMS Maps _ IRC      _ LU6      _ FEPI     Communications

    _ Sockets  _ 3270Brdg _ Doc Temp _ EXCI     Web Related

    _ TD       _ TS Main  _ TS Share            TD and TS

    _ SAP      _ NATURAL  _ IDEAL               4GL and Applications

    _ JAVA     _ BTS      _ CORBA               Appl. Technologies


      Error
```

Figure 172. CHISTPD1 View

Usage Notes

For information about defining resources, see “Parameter Set Resources” on page 234.

Hyperlinks

The default hyperlinks defined for the CHISTPD1 view are as follows:

Field	Data Displayed
CICS Files	CHISTPD4
4GL and Applications	CHISTPD5

CHISTPD2 View

To display file and workload parameters, perform one of the following:

- Hyperlink from the CHISTPQ view using the **File Masks or Workload Masks** field
- Issue the command

  CHISTPD2 [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTPD2 view appears, as shown in Figure 173.

```
07MAY2002  11:21:56 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTP===CHISTPD2(BCVDVPC==BCVCD610)07MAY2002==11:10:29====MVCICS===D====1
                File and Workload Masks

    Set Name    BDRH$RSP
    Description Default response time set

       Type     Identifier
    ----------- ------------------------------------------------




     Workload
    -----------




    Error
```

Figure 173. CHISTPD2 View

Usage Notes

For information about defining file and workload resources, see “File and Workload Filters” on page 236.

Hyperlinks

The default hyperlinks defined for the CHISTPD2 view are as follows:

Field	Data Displayed
Set Name	CHISTPQ
Description	CHIST

CHISTPD3 View

To display parameter errors, perform one of the following:

- Hyperlink from the CHISTP view using the **E** field
- Hyperlink from the CHISTPQ view using the **Error Messages** hyperlink
- Hyperlink from the data in error on any of the history parameter views
- Issue the command

  CHISTPD3 [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTPD3 view appears, as shown in Figure 174.

```
07MAY2002  11:30:39 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTP===CHISTPD3(BCVDVPC==BCVCD610)07MAY2002==11:30:32====MVCICS===D====1
                              Error Status

    Set Name......... BDRH$RSP
    Set Description.. Default response time set

    Field In Error... Data row 1

    Data In Error.... a

    Error Description This field, a, is invalid at position 1. This field is
                      a number and may only contain numeric characters and an
                      optional decimal point.The indicated position does not
                      contain valid data.
```

Figure 174. CHISTPD3 View

Usage Notes

Errors can be corrected directly from within this view by modifying the **Data in Error** field. For information about defining file and workload resources, see “Errors in Parameter Sets” on page 243.

Hyperlinks

The default hyperlinks defined for the CHISTPD3 view are as follows:

Field	Data Displayed
Set Name	CHISTPQ
Description	CHIST

CHISTPD4 View

To display CICS file resources, perform one of the following:

- Hyperlink from the CHISTPD1 view using the **CICS Files** field
- Issue the command

  CHISTPD4 [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTPD4 view appears, as shown in Figure 175.

```
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTP===CHISTPD4(BCVDVPC==BCVCD610)07MAY2002==11:10:29====MVCICS===D====1
                  History   Resource   Groups   error
                                                erfld
      Set Name   BDRH$RSP

    S Resource S Resource S Resource S Resource           Description
    - -------- - -------- - --------   --------       -----------------
    _ CICS     _ RLS      _ CF DatTb _ Pseudo         CICS Files

    _ Update   _ FC Other


      Error
```

Figure 175. CHISTPD4 View

Usage Notes

For information about defining file and workload resources, see “File and Workload Filters” on page 236.

CHISTPD5 View

To display 4GL application resources, perform one of the following:

- Hyperlink from the CHISTPD1 view using the **4GL and Applications** hyperlink
- Issue the command

  CHISTPD5 [*parameter_set_name*]

  where

  parameter_set_name Is the name of a specific parameter set.

The CHISTPD5 view appears, as shown in Figure 176.

```
07MAY2002  11:20:40 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTP===CHISTPD5(BCVDVPC==BCVCD610)07MAY2002==11:10:29====MVCICS===D====1
                  History   Resource   Groups

      Set Name   BDRH$RSP

    S Resource S Resource S Resource S Resource      Description
    - -------- - -------- - --------   -------- --------------------
    _ SAP      _ SAP Dia  _ SAP LRT  _ SAP Post 4GL and Applications

    _ NATURAL  _ IDEAL    _ SUPRA    _ SYSTEM2K

    _ CSP      _ DMS      _ GENEROL  _ MILLENIU

    _ PCS      _ UFO


      Error
```

Figure 176. CHISTPD5View

Usage Notes

For information about defining file and workload resources, see “File and Workload Filters” on page 236.

Tabular History Views

CHIST View

To display general history information, perform one of the following:

- Hyperlink from the **EZCSHIST** Easy menu by using the **Task Data** hyperlink
- Hyperlink from the **EZCFSSI** Easy menu by using the **History Menu** -> **Task Data** hyperlink.
- Issue the command

  CHIST [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHIST view appears, as shown in Figure 177.

```
04MAR2002  10:56:28 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST=============BCVCD610=*========04MAR2002==08:50:16====MVCICS===D===46
Task    CICS   Lcl Task   Lcl Task Tran Response  Storage File    User   Term
Num    System  End Date   End Time  ID    Time      HWM   Calls    ID     ID
    7 BCVCD610 04MAR2002  07:53:57 CPLT    6.8835   11008     0 BCVM
   23 BCVCD610 04MAR2002  07:53:58 CWBG    0.0368       0     0 BCVM
   27 BCVCD610 04MAR2002  07:53:58 CSFU    0.0270       0     0 BCVM
   26 BCVCD610 04MAR2002  07:53:58 CRSQ    0.0273       0     0 BCVM
   28 BCVCD610 04MAR2002  07:53:58 CEJR    0.0274       0     0 BCVM
   29 BCVCD610 04MAR2002  07:53:58 CXRE    0.0347       0     0 BCVM
   30 BCVCD610 04MAR2002  07:53:58 CLS1    0.0082       0     0 BCVM
   31 BCVCD610 04MAR2002  07:53:58 CLS1    0.0179       0     0 BCVM
   32 BCVCD610 04MAR2002  07:54:00 FIC2    0.0439    3552     0 BCVM
   33 BCVCD610 04MAR2002  07:55:00 FIC2    0.0026    3552     0 BCVM
   34 BCVCD610 04MAR2002  07:56:00 FIC2    0.0039    3552     0 BCVM
   35 BCVCD610 04MAR2002  07:57:00 FIC2    0.0025    3552     0 BCVM
```

Figure 177. CHIST View

Hyperlinks

The default hyperlinks defined for the CHIST view are as follows:

Field	Data Displayed
Task NUM	CHISTQ
CICS System	EZCREGN
LcL Task End Date	CHISTD
LcL Task End Time	CHISTUOW
Response Time	CHISTDE
Storage HWM	CHISTDST
I/O Calls	CHISTDIO
Term ID	CHISTDTM

Related Views

The following view is similar to the CHIST view. The information it provides is summarized.

View	Description
CHISTZ	Provides summarized historical information

CHISTQ View

To display the Quick menu for history views, perform one of the following actions:

- Hyperlink from the **Task Num** field on the CHIST view
- Issue the command

  CHISTQ [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTQ view appears, as shown in Figure 177.

```
26JUL2002  08:32:40 ------ MAINVIEW WINDOW INTERFACE(V4.1.02)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 H1 =CHISTQ===========(BCVDVPC==*=======)26JUL2002==08:32=360M==MVCICS===D====1
  CICS Transaction History Detail Menu

  CICS Region ------------------------>      BCVCD610
  Task Number ------------------------>             7
  Transaction Id --------------------->          CPLT
                                                          Other Menus
  Detach Date (Local) ---------------->     26JUL2002 > Target Menu
  Detach Time (Local) ---------------->    06:39:02.6 > Fullscreen Menu

    Transaction History Detail Forms
. Task Overview
. Elapsed Time Data
. CPU Time Data
. Suspend Time Data
. Storage Control
. Program Control
. Terminal Control
. TS/TD/Journal Control
. File Utilization
. DB2 Utilization
. DBCTL Utilization
. MQSeries Utilization
. 1st Five File/Plan/Queue Details
. JAVA Utilization
. Sockets (TCPIP)
. WEB (CWI/Documents)
. Business Transaction Server Data
. Front End Programming Interface
. Tasks with Same UOW
```

Figure 178. CHISTQ View

Hyperlinks

The default hyperlinks defined for the CHISTQ view are as follows:

Field	Data Displayed
Task Overview	CHISTD
Elapsed Time Data	CHISTDE
CPU Time Data	CHISTDC
Suspend Time Data	CHISTDS
Storage Control	CHISTDST
Program Control	CHISTDPG
Terminal Control	CHISTDTM
TS/TD/Journal Control	CHISTDTQ
File Utilization	CHISTDF
DB2 Utilization	CHISTDD
DBCTL Utilization	CHISTDL
MQSeries Utilization	CHISTDQ
1st Five File/Plan/Queue Details	CHISTDIO
JAVA Utilization	CHISTDJV
Sockets (TCP/IP)	CHISTDTC
WEB (CWI/Documents)	CHISTDWB
Business Transaction-Server Data	CHISTDBT
Front-End Programming Interface	CHISTDFP
Tasks with Same UOW	CHISTUOW

CHISTUOW View

To display general history information sorted by Business Unit of Work Identifier (BUOWID), perform one of the following actions:

- Hyperlink from the **Local Task End Time** field on the CHIST view
- Hyperlink from the **CHISTQ** Quick menu by using the **Tasks with Same UOW** hyperlink
- Issue the command

  CHISTUOW [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTUOW view appears, as shown in Figure 177.

```
02AUG2002  11:11:55 ------ MAINVIEW WINDOW INTERFACE(V4.1.02)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTUOW=========(BCVDVPC==*=======)02AUG2002==11:11:51====MVCICS===D====8
Task    CICS   GMT Task  GMT Task    Tran Response    CPU    Storag  I/O  Term
Num    System  Str Date  Str Time     ID    Time      Time     HWM  Calls  ID
  266 BCVCD410 02AUG2002 18:02:00.39 FIC2   0.00122  0.00091   3760     0
  264 BCVCD410 02AUG2002 18:00:00.70 FIC2   0.02845  0.00125   3760     0
  265 BCVCD410 02AUG2002 18:01:00.09 FIC2   0.00110  0.00091   3760     0
  270 BCVCD410 02AUG2002 18:06:00.51 FIC2   0.00150  0.00091   3760     0
  271 BCVCD410 02AUG2002 18:07:00.28 FIC2   0.00099  0.00086   3760     0
  267 BCVCD410 02AUG2002 18:03:00.16 FIC2   0.01128  0.00789   3760     0
  268 BCVCD410 02AUG2002 18:04:00.45 FIC2   0.00101  0.00086   3760     0
  269 BCVCD410 02AUG2002 18:05:00.22 FIC2   0.00099  0.00088   3760     0
```

Figure 179. CHISTUOW View

Hyperlinks

The default hyperlinks defined for the CHISTUOW view are as follows:

Field	Data Displayed
CICS System	EZCREGN
GMT Task Str Date	CHISTD
GMT Task Str Time	CHISTDS
Response Time	CHISTDE
CPU Time	CHISTDC
Storage HVM	CHISTDST
I/O Calls	CHISTDIO

Field	Data Displayed
Term ID	CHISTDTM

History Detail Views

CHISTD View

To display detailed history information:

- Hyperlink from the **Lcl Task End Date** field of the CHIST view
- Issue the command

  CHISTD [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTD view appears, as shown in Figure 177.

```
04MAR2002  13:37:31 ------ MAINVIEW WINDOW INTERFACE(R4.0.02)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTD===BCVCD610=*========04MAR2002==11:29:01====MVCICS===D====1
> Target...............           BCVCD610
< Task Number..........                163
  Transaction ID.......               FIC2

  Detach Date (Local)..          04MAR2002  CICS APPLID........     BCVCD610
  Detach Time (Local)..         10:03:00.0  User ID............         BCVM
                                            Terminal ID........
  Start Date (Local)...          04MAR2002  Terminal Network ID
  Start Time (Local)...         10:03:00.0
                                            Program Name.......     CMRROLL1
  Response Time........            0.05731  Facility Name......
  Suspend Time.........            0.00002  Start Type.........          ATI
  CPU Time.............            0.01032
                                            Transaction Data...
  History User Data....                      Class.............
                                             Type..............          N/A
  Originating System...  USBMCN01.BCVCD610   Data Location.....        BELOW
  Remote SYSID.........                      Data Type.........         CICS
                                             Isolation.........           NO
  Unit of Work ID......   4711698A12740001   Dynamic...........           NO
  Unit of Recovery ID..   B74711698A1274A4
```

Figure 180. CHISTD View

Hyperlinks

The default hyperlinks defined for the CHISTD view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Number	CHISTQ

CHISTDS View

To display suspend time information:

- Hyperlink from the **GMT Task Start Time** field of the CHISTUOW view
- Hyperlink from the **Suspend Time** field of the CHISTDE view
- Issue the command

  CHISTDS [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDS view appears, as shown in Figure 177.

```
22APR2002  13:49:37 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDS=(BCVDVPC==BCVCD530)22APR2002==13:49:27====MVCICS===D====1
> Target...............   BCVCD530
< Task Number...........         26           NOTE: Suspend components may
  Transaction ID........       CWBG                 overlap.  The overlaps
                                                    can cause the total of
  Detach Date (Local)...  22APR2002                 all the percentages to
  Detach Time (Local)... 09:06:27.0                 be greater than 100%.

  Task Response Time....    0.08165
  Total Suspend Time....    0.07520
                                                 Component Portion of
  Suspend Component.....     Time   Count  %       Total Suspend Time
  ----------------------  --------- ----- --- 0<----------50---------->100
  Dispatch..............    0.07518     3 100  ++++++++++++++++++++++++++
  Communications........    0.00000     0   0
  File..................    0.00000     0   0
  RMI...................
   DB2..................    0.00000     0   0
   IMS..................    0.00000     0   0
   Other RMI............    0.00000     0   0
  Temporary Storage.....    0.00000     0   0
  Transient Data........    0.00000     0   0
  Journal...............    0.00000     0   0
  Enqueue/Lock..........    0.00000     0   0
  Synchronization.......    0.00000     0   0
  User Control..........    0.00000     0   0
  Business Txn Server...    0.00000     0   0
  JAVA/CORBA............    0.00000     0   0
```

Figure 181. CHISTDS View

Usage Notes

The total for the individual suspend components may not equal that given in the **Total Suspend Time** field because several measurements overlap. For instance, the amount of time a BTS task waits for its parent transaction to issue a synchpoint falls within both the Synchronization group and the Business Transaction Server group.

When displaying the overall group totals, the percentages are calculated based upon the total wait time for the transactions. However, when displaying the individual breakdown of the groups, the percentages are calculated based upon how much of that group the individual wait time represents.

See the online Help for more information bout how the data is calculated.

Hyperlinks

The default hyperlinks defined for the CHISTDS view are as follows:

Field	Data Displayed
Dispatch	CHISTDS1
Communications	CHISTDS2

Field	Data Displayed
File	CHISTDS3
DB2	CHISTDS4
Temporary Storage	CHISTDS6
Enqueue/Lock	CHISTDS7
Synchronization	CHISTDS8
User Control	CHISTDS9
Business Txn Server	CHISTDSA
JAVA/CORBA	CHISTDSB

CHISTDE View

To display elapsed time information:

- Hyperlink from the **Elapsed Time Data** field of the CHIST view
- Issue the command

  CHISTDE [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDE view appears, as shown in Figure 177.

```
22APR2002  13:57:16 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDE==========(BCVDVPC==*=======)22APR2002==13:57:14====MVCICS===D====1
> Target...............   BCVCD610
< Task Number...........          7           NOTE: Elapsed components may
  Transaction ID........       CPLT                 overlap.  The overlaps
                                                    can cause the total of
  Detach Date (Local)...  22APR2002                 the percentages to be
  Detach Time (Local)... 09:08:18.0                 greater than 100%.

  Task Response Time....    5.62976

  Elapsed Time Component     Time   Count  %   Percent of Response Time
  ----------------------  --------- ----- --- 0<----------50---------->100
  CPU Time..............    0.09069    79   2
  Waiting for CPU.......    0.17893         3  +
  Suspend Time..........    5.17085    79  92  ++++++++++++++++++++++++++++
  Dispatch Time.........
   QR TCB...............    0.13083    61   2  +
   Key 8 TCBs...........    0.00000     0   0
   RO TCB...............    0.00000     0   0
   Other TCBs...........    0.32808    18   6  ++
  RMI Time..............
   DB2 Time.............    0.00000     0   0
   MQ Series Time.......    0.00000     0   0
   Other RMI Time.......    0.00000     0   0
  JVM Time..............    0.00000     0   0
  Synchpoint Time.......    0.00018    17   0
  Program Load Time.....    0.18930    18   3  +
  RLS SRB Time..........    0.00000     0   0
```

Figure 182. CHISTDE View

Usage Notes

The raw total for the individual elapsed time components may not equal that given in the **Total Response Time** field because several measurements overlap. For instance, the amount of time a BTS task waits for its parent transaction to issue a synchpoint falls within both the Synchronization group and the Business Transaction Server group.

When displaying the overall group totals, the percentages are calculated based upon the total wait time for the transactions. However, when displaying the individual breakdown of the groups, the percentages are calculated based upon how much of that group the individual wait time represents.

See the online Help for more information bout how the data is calculated.

Hyperlinks

The default hyperlinks defined for the CHISTDE view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Number	CHISTQ

Field	Data Displayed
CPU Time	CHISTDC
Suspend Time	CHISTDS

CHISTDC View

To display information about CPU time:

- Hyperlink from the **CPU Time Data** field of the CHISTQ view
- Hyperlink from the **CPU Time** field of the CHISTDE view
- Issue the command

  CHISTDC [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDC view appears, as shown in Figure 177.

```
23APR2002  10:39:13 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDC==========(BCVDVPC==*=======)23APR2002==10:39:11====MVCICS===D====1
> Target...............   BCVCD610
< Task Number...........        261
  Transaction ID........       FIC2

  Detach Date (Local)...  23APR2002
  Detach Time (Local)... 10:30:00.0

  Task Response Time....    0.00507
  Total CPU Time........    0.00144
                                                  Component Portion of
  CPU Time Component....     Time   Count  %         Total CPU Time
  ---------------------  --------- ----- --- 0<----------50---------->100
  QR TCB................    0.00144     1 100 ***************************
  Key 8 TCBs............
   L8 TCB...............    0.00000     0   0
   J8 TCB...............    0.00000     0   0
   S8 TCB...............    0.00000     0   0
   Other Key 8 TCBs.....    0.00000     0   0
  RO TCB................    0.00000     0   0
  Other TCBs............    0.00000     0   0
```

Figure 183. CHISTDC View

Hyperlinks

The default hyperlinks defined for the CHISTDC view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Number	CHISTQ

CHISTDF View

To display detail FC information:

- Hyperlink from the **File Utilization** field of the CHISTQ view
- Issue the command

  CHISTDF [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDF view appears, as shown in Figure 177.

```
11MAR2002  11:38:01 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDF==BCVCD610=*========11MAR2002==11:24:17====MVCICS===D====1
> Target.................   BCVCD610
< Task Number............          4
  Transaction ID..........       CSOL        ->(Link to Files Data)

  Detach Date (Local).....  11MAR2002        Exception for String..     N
  Detach Time (Local)..... 08:35:08.0        Exception for Buffer..     N

                              Time    Count  Access Method Reqs....     0
                           ---------  -----
  Waits...................                   I/O Requests..........
   File Control...........    0.00000     0   Browse...............     0
   File Control String....    0.00000     0   Get..................     0
   CF Data Table..........    0.00000     0   Put..................     0
   CF Data Table ReSynch..    0.00000     0   Add..................     0
   RLS....................    0.00000     0   Delete...............     0
                                              Other................     0
  CPU Usage...............
   RLS....................    0.00000     0   Total................     0
```

Figure 184. CHISTDF View

Hyperlinks

The default hyperlinks defined for the CHISTDF view are as follows:

Field	Data Displayed
Target.....	EZCREGN
Task Num	CHISTQ

CHISTDD View

To display detail information about DB2 plan usage:

- Hyperlink from the **DB2 Utilization** field on the CHISTQ view
- Issue the command

  CHISTDD [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISDD view appears, as shown in Figure 177.

```
23APR2002  10:53:03 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDD==========(BCVDVPC==*=======)23APR2002==10:53:02====MVCICS===D====1
> Target...............   BCVCD610
< Task Number...........          7
  Transaction ID........       CPLT  > I/O Details......

  Detach Date (Local)...  23APR2002  Subsystem ID.......
  Detach Time (Local)... 06:42:44.0  Alias Name.........
                                     Correlation ID.....
  DB2 Calls............              Authorization ID...
   Select..............          0
   Open................          0  1st PLAN Name......
   Close...............          0
   Insert..............          0  Thread Type........        N/A
   Delete..............          0  Thread Wait........        N/A
   Update..............          0
   Fetch...............          0                          Time   Count
   Commit..............          0  Waits..............  --------  -----
   Other...............          0   1st SQL Call......    0.00000
                                      For Thread........    0.00000     0
   Total...............          0   For Subtask.......    0.00000     0
                                      For SQL/IFI.......    0.00000     0
```

Figure 185. CHISDD View

Hyperlinks

The default hyperlinks defined for the CHISDD view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Number	CHISTQ
I/O Details	CHISTDIO

CHISTDQ View

To display detail MQ Series information:

- Hyperlink from the **MQ Series Utilization** field of the CHISTQ view
- Issue the command

  CHISTDQ [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDQ view appears, as shown in Figure 177.

```
23APR2002  12:24:45 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDQ==========(BCVDVPC==*=======)23APR2002==12:24:44====MVCICS===D====1
> Target...............   BCVCD610
< Task Number..........          7
  Transaction ID.......       CPLT  > I/O Details.....

  Detach Date (Local)..  23APR2002
  Detach Time (Local).. 06:42:44.0

  MQ Subsystem ID......

  Total Wait Time......    0.00000
  Total Request Count..          0
   Opens...............          0
   Closes..............          0
   Gets................          0
   Puts................          0
   Put1s...............          0
   Other...............          0
```

Figure 186. CHISTDQ View

Hyperlinks

The default hyperlinks defined for the CHISTDQ view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ
I/O Details	CHISTDIO

CHISTDL View

To display detail DBCTL information:

- Hyperlink from the **DL/I Utilization** field of the CHISTQ view
- Issue the command

  CHISTDL [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDL view appears, as shown in Figure 177.

```
23APR2002  12:29:16 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDL==========(BCVDVPC==*=======)23APR2002==12:29:16====MVCICS===D====1
> Target...................   BCVCD610
< Task Number...............          7
  Transaction ID............       CPLT  > I/O Details..............

  Detach Date (Local).......  23APR2002
  Detach Time (Local)....... 06:42:44.0

  DBCTL Subsystem ID........             Total DBCTL Requests.......      0

  CPU Time..................    0.00000  Request Types..............
                                          Get Unique................      0
  I/O Time..................    0.00000    Get Next..................      0
  I/O Count................          0    Get Next w/i Parent......      0
                                          Get Hold Unique..........      0
  Wait Time................    0.00000    Get Hold Next............      0
  Wait Count...............          0    Get Hold Next w/i Parent.      0
                                          Insert...................      0
  Program Spec. Block (PSB).              Delete...................      0
    Name....................              Replace..................      0
    Schedule Time...........    0.00000
    Schedule Count..........          0
```

Figure 187. CHISTDL View

Hyperlinks

The default hyperlinks defined for the CHISTDL view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ
I/O Details	CHISTDIO

CHISTDPG View

To display detail information about program usage:

- Hyperlink from the **Program Control** field of the CHISTQ view
- Issue the command

  CHISTDPG [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDPG view appears, as shown in Figure 177.

```
11MAR2002  13:39:16 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDPG=BCVCD610=*========11MAR2002==13:39:02====MVCICS===D====1
> Target................   BCVCD610
< Task Number............        269  Program Name..........     PATFILE0
  Transaction ID........       PFIL  Program Type..........         CICS

  Detach Date (Local)....  11MAR2002  Program Storage Usage.
  Detach Time (Local).... 10:43:06.0
                                       Below 16M Line.......
                                         CDSA...............            0
  Program Control Calls..                RDSA...............         1688
   Load Requests.........          0     SDSA...............            0
   Link Requests.........          1     Total..............         1688
   XCTL Requests.........          0
   Link URM Requests.....          0   Above 16M Line.......
   DPL Requests..........          0     ECDSA..............            0
                                         ERDSA..............            0
                                         ESDSA..............            0
  DFHRPL Wait Time.......    0.00000     Total..............            0
  DFHRPL Wait Count......          0
                                      Total................         1688
```

Figure 188. CHISTDPG View

Hyperlinks

The default hyperlinks defined for the CHISTDPG view are as follows:

Field	**Data Displayed**
Target	EZCREGN
Task	CHISTQ

CHISTDTM View

To display detail information about terminal ID associated with a transaction:

- Hyperlink from the **Term ID** field of the CHIST view
- Hyperlink from the **Terminal Control** field of the CHISTQ view
- Issue the command

  CHISTDTM [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDTM view appears, as shown in Figure 177.

```
11MAR2002  10:55:31 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDTM=BCVCD610=*========11MAR2002==10:45:58====MVCICS===D====1
> Target................     BCVCD610
< Task Number............          132  Terminal ID..............      L238
  Transaction ID.........         PFIL  Network ID...............  TCPBL238
                                        Connection Name..........
  Detach Date (Local)....    11MAR2002
  Detach Time (Local)....   08:30:44.0  Terminal Control........
                                         Wait Time...............   0.00000
  Terminal Information...                Wait Count..............         0
   Nature................     TERMINAL
   Device Type...........       T3277R  Inter-Region Comms. (MRO)
   Access Method.........         VTAM   Wait Time...............   0.00000
   Session Type..........          N/A   Wait Count..............         0

  LU 6.2................                Messages to Terminal.....
   Wait Time.............      0.00000   Primary.................         0
   Wait Count............            0   Secondary...............         0
   Alt. Msgs. Sent.......            0
   Alt. Msgs. Received...            0  Messages from Terminal...
   Alt. Bytes Sent.......            0   Primary.................         0
   Alt. Bytes Received...            0   Secondary...............         0

  LU 6.1................                Bytes to Terminal........
   Wait Time.............      0.00000   Primary.................         0
   Wait Count............            0   Secondary...............         0

  TCTTE Allocate Requests            0  Bytes from Terminal......
                                         Primary.................         0
                                         Secondary...............         0
```

Figure 189. CHISTDTM View

Hyperlinks

The default hyperlinks defined for the CHISTDTM view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Number	CHISTQ

CHISTDST View

To display detail information about storage control usage:

- Hyperlink from the **Storage HWM** field of the CHIST view
- Hyperlink from the **Storage Control** field of the CHISTQ view
- Issue the command

  CHISTDST [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

region_name Is the name of a CICS region.

task_number Is the task ID of a task.

task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDST view appears, as shown in Figure 177.

```
25APR2002  08:24:51 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDST=========(BCVDVPC==*=======)25APR2002==08:24:44====MVCICS===D====1
> Target................    BCVCD610
< Task Number...........           7
  Transaction ID........        CPLT

  Detach Date (Local)...   25APR2002
  Detach Time (Local)...  06:55:52.0

  Shared Storage........   DSA Name   Reqs  GETMAIN   FREEMAIN
                          ----------- ------ -------- ---------
                            CDSA/SDSA      3      160         0
                          ECDSA/ESDSA      2    40432         0

  User Storage..........   DSA Name   Reqs     HWM   Occupancy
                          ----------- ------ -------- ---------
                                 CDSA     16    11008   2043188
                                 UDSA     16    11008         0
                                ECDSA     81     5296    845092
                                EUDSA     81     5296         0

  Storage Wait Exception
```

Figure 190. CHISTDST View

Hyperlinks

The default hyperlinks defined for the CHISTDST view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Number	CHISTQ

CHISTDTQ View

To display detail information about TS/TD usage:

- Hyperlink from the **TS/TD/Journal Control** field of the CHISTQ view
- Issue the command

  CHISTDTQ [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDTQ view appears, as shown in Figure 177.

```
20MAR2002  12:14:47 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTQ===CHISTDTQ=BCVCD610=*========20MAR2002==12:11:35====MVCICS===D====1
> Target................   BCVCD610
< Task Number...........          7
  Transaction ID........       CPLT

  Detach Date (Local)....  20MAR2002
  Detach Time (Local).... 10:07:15.0

  Transient Data........             Temporary Storage..........

    Wait Time...........    0.00000    Wait Time................   0.00000
    Wait Count..........          0    Wait Count...............         0

    Requests............               Shared Wait Time.........   0.00000
     Get................          0    Shared Wait Count........         0
     Put................         67
     Purge..............          0    Requests.................
     Total..............         67     Get......................         0
                                        Put (Main)...............         0
                                        Put (Auxiliary)..........         0
  Journal Control........               Delete...................         0
                                        Total....................         0
    Wait Time...........    0.00000
    Wait Count..........          0    Exceptions...............
                                        Storage.................
    Journal Writes......          0     Buffer..................
    Log Stream Writes....         0     String..................
```

Figure 191. CHISTDTQ View

Hyperlinks

The default hyperlinks defined for the CHISTDTQ view are as follows:

Field	**Data Displayed**
Target	EZCREGN
Task	CHISTQ

CHISTDBT View

To display detail information about business transactions:

- Hyperlink from the **Business Transaction-Server Data** field on the CHISTQ view
- Issue the command

  CHISTDBT [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISDBT view appears, as shown in Figure 177.

```
25APR2002  08:35:19 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHISTDBT=========(BCVDVPC==*=======)25APR2002==08:35:18====MVCICS===D====1
> Target.........   BCVCD610
< Task Number....          7 Process..
  Transaction ID.       CPLT  Name....
                              Type....
  Det. Date (Lcl)  25APR2002  ID......
  Det. Time (Lcl) 06:55:52.0
                             Activity.
  Requests.......             Name....
   Asynchronous..          0  ID......
   Synchronous...          0
   Proc/Activity.          0
    Acquire......          0
    Delete.......          0
    Link.........          0
    Reset........          0
    Resume.......          0
    Suspend......          0
    Def Process..          0
    Def Activity.          0
   Container.....          0
    Activity Data          0
    Process Data.          0
   Event.........          0
    Define Input.          0
    Timer........          0
    Retrv/Reatt..          0

   Waits.........     Count      Time
    Transaction..          0   0.00000
    Synchpoint...          0   0.00000
```

Figure 192. CHISDBT View

Hyperlinks

The default hyperlinks defined for the CHISDBT view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

CHISTDFP View

To display detail history information about FEPI:

- Hyperlink from the **Front End Programming Interface** field of the CHISTQ view
- Issue the command

  CHISTDFP [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDFP view appears, as shown in Figure 177.

```
111MAR2002  13:24:43 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDFP=BCVCD610=*========11MAR2002==13:22:46====MVCICS===D====1
> Target..................   BCVCD610
< Task Number............        268
  Transaction ID..........       PFIL

  Detach Date (Local).....  11MAR2002
  Detach Time (Local)..... 10:42:37.0

  Wait Time...............    0.00000  Requests..................
  Wait Count..............          0   Starts...................      0
                                         Sends....................      0
  Conversation Allocates..          0   Receives.................      0
                                         Total API/SPI Requests...      0
  Timeouts................
   Allocate...............          0  Characters Sent...........      0
   Receive................          0  Characters Received.......      0
                                                 58341 52550.258
```

Figure 193. CHISTDFP View

Hyperlinks

The default hyperlinks defined for the CHISTDFP view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

CHISTDWB View

To display detail information about Web usage associated with the transaction:

- Hyperlink from the **WEB (CWI/Documents)** field of the CHISTQ view
- Issue the command

  CHISTDWB [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDWB view appears, as shown in Figure 177.

```
20MAR2002  12:25:12 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTQ===CHISTDWB=BCVCD610=*========20MAR2002==12:11:35====MVCICS===D====1
> Target.................   BCVCD610
< Task Number............          7  CICS WEB Interface Data....
  Transaction ID..........       CPLT
                                      Requests..................
  Detach Date (Local).....  20MAR2002   Send.....................        0
  Detach Time (Local)..... 10:07:15.0   Receive..................        0
                                        Extract..................        0
  Document Template Data..              HTTP Browse..............        0
   Total Document Length..          0   HTTP Read................        0
   Document Requests......              HTTP Write...............        0
    Create................          0   Total....................        0
    Insert................          0
    Set...................          0  Repository Reads..........        0
    Retrieve..............          0  Repository Writes.........        0
    Total.................          0
                                      Characters Sent...........        0
  3279 Bridge Data........            Characters Received.......        0
   3270 Bridge Txn ID.....
   Wait Time..............    0.00000
   Wait COunt.............          0
```

Figure 194. CHISTDWB View

Hyperlinks

The default hyperlinks defined for the CHISTDWB view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

CHISTDTC View

To display detail information about TCP/IP sockets associated with the transaction:

- Hyperlink from the **Sockets (TCP/IP)** field of the CHISTQ view
- Issue the command

  CHISTDTC [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDTC view appears, as shown in Figure 177.

```
20MAR2002  12:11:41 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTQ===CHISTDTC=BCVCD610=*========20MAR2002==12:11:35====MVCICS===D====1
> Target..................   BCVCD610
< Task Number.............          7  TCPIP Service Name..
  Transaction ID...........       CPLT  Port Number.........

  Detach Date (Local)......  20MAR2002  Client IP Address...
  Detach Time (Local)...... 10:07:15.0
                                        Socket Waits........
  Requests................               Inbound Wait Time..          0.00000
   Create NPers. OutB. Sock          0   Inbound Wait Count.                0
   Create Pers. OutB. Sock.          0   Outbound Wait Time.          0.00000
   Extract................           0   Outbound Wait Count                0
   Inbound Receive........           0
   Inbound Receive........           0  Inbound Recv Bytes..                0
   Outbound Receive.......           0  Inbound Send Bytes..                0
   Outbound Send..........           0  Outbound Recv Bytes.                0
   Total..................           0  Outbound Send Bytes.                0

  NPers. OutB. Socket HWM..          0  SSL Encrypt Bytes...                0
  Pers. OutB.eSocket HWM...          0  SSL Decrypt Bytes...                0
```

Figure 195. CHISTDTC View

Hyperlinks

The default hyperlinks defined for the CHISTDTC view are as follows:

Field	**Data Displayed**
Target	EZCREGN
Task	CHISTQ

CHISTDJV View

To display detail information about Java Virtual Machines associated with a transaction:

- Hyperlink from the **Java Utilization** field of the CHISTQ view
- Issue the command

  CHISTDJV [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDJV view appears, as shown in Figure 177.

```
25APR2002  11:31:46 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDJV=========(BCVDVPC==*=======)25APR2002==11:31:44====MVCICS===D====1
> Target...............   BCVCD610
< Task Number..........          7
  Transaction ID.......       CPLT

  Detach Date (Local)..  25APR2002
  Detach Time (Local).. 06:55:52.0

  Task Response Time...    7.24326

                           Time   Count
                         --------- -----
  JVM Elapsed Time.....    0.00000
   JVM Initialization..    0.00000     0
   JVM Reset...........    0.00000     0
   JVM Other...........    0.00000     0

  JVM Suspend..........    0.00000     0
  JVM CPU..............    0.00000     0

  Wait for JVM.........
   Max JVM TCBs........    0.00000     0
   Max Hotpool JVM TCBs    0.00000     0

  CORBA Wait...........
   Request Receiver....    0.00000     0
   Request Processor...    0.00000     0
```

Figure 196. CHISTDJV View

Hyperlinks

The default hyperlinks defined for the CHISTDJV view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

CHISTDS1 View

To display dispatch delay details for suspend times:

- Hyperlink from the **Dispatch** field of the CHISTDS view
- Issue the command

  CHISTDS1 [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDS1 view appears, as shown in Figure 177.

```
11MAR2002  13:43:08 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDS1=BCVCD610=*========11MAR2002==13:39:02====MVCICS===D====1
> Target................   BCVCD610
< Task Number...........        268              DISPATCH DELAY DETAILS
  Transaction ID........       PFIL

  Detach Date (Local)...  11MAR2002             Dispatch Delay Portion
  Detach Time (Local)... 10:42:37.0             of Total Suspend Time
                                              0<----------50---------->100
  Task Response Time....   21.45442
  Total Suspend Time....   20.64320

  Total Dispatch Wait...    0.90586
                                                Sub-Component Portion of
  Suspend Sub-Component.     Time   Count  %      Total Dispatch Delay
  ----------------------  --------- ----- --- 0<----------50---------->100
  1st Dispatch Total....    0.00002
   1st Dispatch Wait....    0.00002     1   0
   TranClass Wait.......    0.00000     0   0
   Max Task Wait........    0.00000     0   0
  Redispatch Wait.......    0.90584
   Wait for QR TCB......    0.55502 11467  61 ++++++++++
   Other Redispatch Wait    0.35082  9136  39 ++++++++++++++++++
  Wait for OTE TCB......    0.00000     0   0
```

Figure 197. CHISTDS1 View

Hyperlinks

The default hyperlinks defined for the CHISTDS1 view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

Related Views

The following views are similar to the CHISTDS1 view. They provide detailed information relating to suspend times. They are displayed by hyperlinking from fields on the CHISTDS view (described in the following table), or by the command

CHISTDS*n* [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

where

n	Designates the view name
parameter_set_name	Is the name of a specific parameter set.
region_name	Is the name of a CICS region.
task_number	Is the task ID of a task.
task_timestamp	Is the 16-byte hexadecimal task dispatch timestamp.

.

View	Description
CHISTDS2	Comm delay details. CHISTDS hyperlink is **Communications.**
CHISTDS3	File delay details. CHISTDS hyperlink is **File.**
CHISTDS4	DB2 delay details. CHISTDS hyperlink is **DB2.**
CHISTDS6	Temporary storage delay details. CHISTDS hyperlink is **Temporary Storage.**
CHISTDS7	Enqueue/lock delay details. CHISTDS hyperlink is **Enqueue/Lock.**
CHISTDS8	Synchronization delay details. CHISTDS hyperlink is **Synchronization.**
CHISTDS9	User control delay details. CHISTDS hyperlink is **User control.**
CHISTDSA	Business Transaction Server delay details. CHISTDS hyperlink is **Business Txn Server.**
CHISTDSB	Java/CORBA delay details. CHISTDS hyperlink is **JAVA/CORBA.**

CHISTDIO View

To display information about CICS files, DB2 plans, or MQ Series queues used by a transaction:

- Hyperlink from the **I/O Calls** field of the CHIST view
- Hyperlink from the **I/O Details** field of the CHISTDL view
- Hyperlink from the **I/O Details** field of the CHISTDQ view
- Hyperlink from the **I/O Details** field of the CHISTDD view
- Issue the command

  CHISTDIO [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

where

parameter_set_name Is the name of a specific parameter set.

region_name Is the name of a CICS region.

task_number Is the task ID of a task.

task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDIO view appears, as shown in Figure 177.

```
16MAY2002  11:12:28 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHIST====CHISTDIO(BCVDVPC==BCVCD530)16MAY2002==11:09:57====MVCICS===D====1
> Target...............   BCVCD530
< Task Number..........         43
  Transaction ID.......       PFIX

  Detach Date (Local)..  16MAY2002
  Detach Time (Local).. 04:11:46.0

  Files Used by Txn....         22
  Expanded Data........        YES

                            Name     Type    Count     Time    Avg Time
                          -------- -------- ------- --------- ---------
  . Expand data for ==>    CMRVS01 CICS FCT     975    1.3342   0.00137
  . Expand data for ==>    CMRVS02 CICS FCT     895    1.6947   0.00189
  . Expand data for ==>    CMRVS03 CICS FCT     975    1.3494   0.00138
  . Expand data for ==>    CMRVS04 CICS FCT     975    1.2883   0.00132
  . Expand data for ==>    CMRVS05 CICS FCT     975    1.3725   0.00141
```

Figure 198. CHISTDIO View

Usage Notes

- If more than five files have been used by the transaction, use the **Files Used by Txn** hyperlink to display the CHIFLE view where information about each file is displayed.
- For information on using the Transaction Navigation arrows, see “Navigating History Records” on page 225.
- For information on using the File Navigation arrows, see “Navigating Transaction I/O Records” on page 227.

Hyperlinks

The default hyperlinks defined for the CHISTDIO view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ
Files Used by Txn	CHFILE

CHISTDF1 View

To display CICS file detail information for the selected task:

- Hyperlink from the first (top) **Expand data for** field on the CHISTDIO view
- Use the Previous File arrow (**<**) on the CHISTDF2 view
- Issue the command

  CHISTDF1 [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDF1 view appears, as shown in Figure 177.

```
11MAR2002  13:35:29 ------ MAINVIEW WINDOW INTERFACE(R4.0.03)MVCICS------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHISTDF1==========BCVCD610=*========11MAR2002==13:35:28====MVCICS===D====1
> Target...........   BCVCD610
< Task Number......         258   I/O Operation    Avg Time Tot Time Count
  Transaction ID...       FIC2 ------------------ -------- -------- -----
                               Reads.............
  Detach Date (Lcl)  11MAR2002   Into............      N/A      N/A   N/A
  Detach Time (Lcl) 10:35:00.0   Set.............      N/A      N/A   N/A
                                 For update into.      N/A      N/A   N/A
> File Name........              For update set..      N/A      N/A   N/A
                                 Next into.......      N/A      N/A   N/A
  File Type........              Next set........      N/A      N/A   N/A
                                 Next updt into..      N/A      N/A   N/A
  I/O Waits........              Next updt set...      N/A      N/A   N/A
   Time............        N/A   Prev into.......      N/A      N/A   N/A
   Count...........        N/A   Prev set........      N/A      N/A   N/A
                                 Prev updt into..      N/A      N/A   N/A
  VOLSER...........              Prev updt set...      N/A      N/A   N/A
   First...........        N/A Start browse......      N/A      N/A   N/A
   Second..........        N/A Reset browse......      N/A      N/A   N/A
   Third...........        N/A End browse........      N/A      N/A   N/A
                               Write.............      N/A      N/A   N/A
                               Rewrite...........      N/A      N/A   N/A
                               Rewrite Delete....      N/A      N/A   N/A
                               Delete............      N/A      N/A   N/A
                               Unlock............      N/A      N/A   N/A
                               Other.............      N/A      N/A   N/A

                               Total I/O Requests      N/A      N/A   N/A
```

Figure 199. CHISTDF1 View

Usage Notes

- For information on using the Navigation arrows, see “Navigating History Records” on page 225.

- For information on using the File Navigation arrows, see “Navigating Transaction I/O Records” on page 227.
- To display information about the sixth and succeeding files, hyperlink on the **Files Used by Txn** field on the CHISTDIO view to display the CHFILE view. The CHFILE view displays information about each file—CICS, DB2, MQ Series—used by the task.

Hyperlinks

The default hyperlinks defined for the CHISTDF1 view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

Related Views

You can review information about any of the first five records, not just the first record. Information about the second record is displayed in the CHISTDF2 view, information about the third record is displayed in the CHISTDF3 view, and so on.

To display information about the second record, use the second **Expand data for** hyperlink; to display information about the third record, click on the third **Expand data for** hyperlink, and so on.

You can use the Next (>) and Previous (<) File arrows on another CHISTDF*n* view. See “Navigating Transaction I/O Records” on page 227.

You can also use the command

CHISTDF*n* [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

where

n	Designates the view name
parameter_set_name	Is the name of a specific parameter set.
region_name	Is the name of a CICS region.
task_number	Is the task ID of a task.
task_timestamp	Is the 16-byte hexadecimal task dispatch timestamp.

View	Description
CHISTDF2	CICS file detail for the second file used by the task
CHISTDF3	CICS file detail for the third file used by the task
CHISTDF4	CICS file detail for the fourth file used by the task
CHISTDF5	CICS file detail for the fifth file used by the task

CHISTDD1 View

To display DB2 plan detail information for the first plan used by the selected task:

- Hyperlink from the first (top) **Expand data for** field on the CHISTDIO view
- Use the Previous File arrow (**<**) on the CHISTDD2 view
- Issue the command

  CHISTDD1 [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDD1 view appears, as shown in Figure 177.

```
03MAY2002  12:03:05 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHIST====CHISTDD1(BCVDVPC==BCVCD530)03MAY2002==11:57:51====MVCICS===D====1
> Target...........   BCVCD530
< Task Number......        262   I/O Operation    Avg Time Tot Time Count
  Transaction ID...       TSN2 ------------------ -------- -------- -----
                               Open.............
  Detach Date (Lcl)  03MAY2002 Close............
  Detach Time (Lcl) 11:38:30.0 Select............   0.0625   0.0625     1
                               Fetch............
> File Name........   TSMCOM2N Insert............
                               Update...........
. File Type........        DB2 Delete...........
                               Commit...........
                               Other............

                               Total I/O Requests   0.0625   0.0625     1
```

Figure 200. CHISTDD1 View

Usage Notes

- For information on using the Navigation arrows, see “Navigating History Records” on page 225.
- For information on using the File Navigation arrows, see “Navigating Transaction I/O Records” on page 227.
- To display information about the sixth and succeeding files, hyperlink on the **Files Used by Txn** field on the CHISTDIO view to display the CHFILE view. The CHFILE view displays information about each file—CICS, DB2, MQ Series—used by the task.

Hyperlinks

The default hyperlinks defined for the CHISTDD1 view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

Related Views

You can review information about any of the first five records, not just the first record. Information about the second record is displayed in the CHISTDD2 view, information about the third record is displayed in the CHISTDD3 view, and so on.

To display information about the second record, use the second **Expand data for** hyperlink; to display information about the third record, click on the third **Expand data for** hyperlink, and so on.

You can use the Next (>) and Previous (<) File arrows on another CHISTDD*n* view. See "Navigating Transaction I/O Records" on page 227.

You can also use the command

CHISTDD*n* [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

where

n	Designates the view name
parameter_set_name	Is the name of a specific parameter set.
region_name	Is the name of a CICS region.
task_number	Is the task ID of a task.
task_timestamp	Is the 16-byte hexadecimal task dispatch timestamp.

View	Description
CHISTDD2	Detail of the second plan used by the task
CHISTDD3	Detail of the third plan used by the task
CHISTDD4	Detail of the fourth plan used by the task
CHISTDD5	Detail of the fifth plan used by the task

CHISTDQ1 View

To display MQ Series detail information for the first queue used by the selected task:

- Hyperlink from the first (top) **Expand data for** field on the CHISTDIO view
- Use the Previous File arrow (**<**) on the CHISTDQ2 view
- Issue the command

  CHISTDQ1 [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHISTDQ1 view appears, as shown in Figure 177.

```
03MAY2002  12:00:20 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHIST====CHISTDQ1(BCVDVPC==BCVCD530)03MAY2002==11:57:51====MVCICS===D====1
> Target...........   BCVCD530
< Task Number......         27
  Transaction ID...       CKTI

  Detach Date (Lcl)  03MAY2002
  Detach Time (Lcl) 08:06:54.0

> File Name........   INITIATI    Queue ID...  CSQ4SAMP.INITIATION.QUEUE

. File Type........   MQSERIES

  I/O Operation....   Avg Time Tot Time Count
  -----------------   -------- -------- -----
  Open.............    31.7270  31.7270     1
  Close............
  Get..............
  Put..............
  Put1.............
  Other............

  Total Reqs.......    31.7270  31.7270     1
```

Figure 201. CHISTDQ1 View

Usage Notes

- For information on using the Navigation arrows, see “Navigating History Records” on page 225.
- For information on using the File Navigation arrows, see “Navigating Transaction I/O Records” on page 227.
- To display information about the sixth and succeeding files, hyperlink on the **Files Used by Txn** field on the CHISTDIO view to display the CHFILE view. The CHFILE view displays information about each file—CICS, DB2, MQ Series—used by the task.

Hyperlinks

The default hyperlinks defined for the CHISTDQ1 view are as follows:

Field	Data Displayed
Target	EZCREGN
Task	CHISTQ

Related Views

You can review information about any of the first five records, not just the first record. Information about the second record is displayed in the CHISTDQ2 view, information about the third record is displayed in the CHISTDQ3 view, and so on.

To display information about the second record, use the second **Expand data for** hyperlink; to display information about the third record, click on the third **Expand data for** hyperlink, and so on.

You can use the Next (>) and Previous (<) File arrows on another CHISTDQ*n* view. See "Navigating Transaction I/O Records" on page 227.

You can also use the command

CHISTDQ*n* [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

where

n	Designates the view name
parameter_set_name	Is the name of a specific parameter set.
region_name	Is the name of a CICS region.
task_number	Is the task ID of a task.
task_timestamp	Is the 16-byte hexadecimal task dispatch timestamp.

View	Description
CHISTDQ2	Detail of the second queue used by the task
CHISTDQ3	Detail of the third queue used by the task
CHISTDQ4	Detail of the fourth queue used by the task
CHISTDQ5	Detail of the fifth queue used by the task

History File Views

CHFILE View

To display general historical information about a task's file usage:

- Hyperlink from the **File Data** field on the EZCSHIST view
- Hyperlink from the **Files Used by Txn** field on the CHISTDIO view
- Issue the command

  CHFILE [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

Note: [discuss interval re EZCHIZT]

The CHFILE view appears, as shown in Figure 202.

```
03MAY2002  12:39:50 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS-----------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHFILE===========(BCVDVPC==*=======)03MAY2002==12:39:45====MVCICS===D===4
Task    CICS   Lcl Task   Lcl Task Tran   File     File   Count   Time
Num    System  End Date   End Time  ID    Name     Type
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS16  CICS FCT   740    1.3615
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS12  CICS FCT   740    1.3602
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS19  CICS FCT   740    1.3406
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS08  CICS FCT   740    1.2217
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS14  CICS FCT   740    1.3735
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS06  CICS FCT   740    1.1813
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS22  CICS FCT   740    1.2464
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS10  CICS FCT   740    1.3412
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS18  CICS FCT   740    1.2275
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS17  CICS FCT   740    1.3668
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS03  CICS FCT   740    1.1954
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS07  CICS FCT   740    1.1159
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS15  CICS FCT   740    1.2449
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS13  CICS FCT   740    1.2897
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS04  CICS FCT   740    1.1348
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS01  CICS FCT   740    1.1378
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS21  CICS FCT   740    1.2444
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS20  CICS FCT   740    1.3541
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS05  CICS FCT   740    1.0606
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS09  CICS FCT   740    1.2450
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS11  CICS FCT   740    1.2195
 1330 BCVCD530 03MAY2002  12:38:01 PFIL CMRVS02  CICS FCT   660    1.3716
 1332 BCVCD530 03MAY2002  12:38:59 PFIX CMRVS08  CICS FCT   975    1.4777
 1332 BCVCD530 03MAY2002  12:38:59 PFIX CMRVS07  CICS FCT   975    1.3247
```

Figure 202. CHFILE View

Usage Notes

When hyperlinking on the **File Name** field, the actual view displayed depends on the record's file type as indicated in the **File Type** field:

- A value of CICS FCT displays the CHFILEDF view. See Figure on page 293.
- A value of MQSERIES displays the CHFILEDQ view. See Figure on page 295.
- A value of DB2 displays the CHFILEDD view. See Figure on page 296.

Hyperlinks

The default hyperlinks defined for the CHFILE view are as follows:

Field	Data Displayed
Task Num	CHFILEQ
CICS System	EZCREGN
Lcl Task End Date	CHFILED
File Name	CHFILEDF

Related Views

The following view is similar to the CHFILE view. It provides summarized information.

View	Description
CHFILEZ	A summary view of the files used by the selected task

CHFILEQ View

To display the Quick menu for history file views:

- Hyperlink from the **Task Num** field on the CHFILE view
- Issue the command

  CHFILEQ [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHFILEQ view appears, as shown in Figure 177.

```
03MAY2002  12:47:31 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHFILE===CHFILEQ=(BCVDVPC==BCVCD530)03MAY2002==12:43:40====MVCICS===D====1
   CICS Txn File History Detail Menu

  CICS Region ------------------------->      BCVCD530
  Task Number ------------------------->          1330
  Transaction Id ---------------------->          PFIL
  File Id ----------------------------->       CMRVS16    Other Menus
                                                        > Target Menu
  Detach Date (Local) ---------------->     03MAY2002 > Fullscreen Menu
  Detach Time (Local) ---------------->    12:38:01.0

     Txn File History Detail Forms
. Task Details
. File Details





          Related Views
. Full Task History Menu
```

Figure 203. CHFILEQ View

When hyperlinking on the **File Details** hyperlink, the actual view displayed depends on the record's file type.

- CICS FCT records are displayed in the CHFILEDF view. See Figure on page 293.
- MQ Series records are displayed in the CHFILEDQ view. See Figure on page 295.
- DB2 records are displayed the CHFILEDD view. See Figure on page 296.

Hyperlinks

The default hyperlinks defined for the CHFILEQ view are as follows:

Field	Data Displayed
Task Details	CHFILED
File Details	CHFILEDF. See Usage Notes.
Full Task History Menu	CHISTQ
Target Menu	EZCREGN
Fullscreen Menu	Primary Option Menu

CHFILED View

To display file usage detail information for the selected task:

- Hyperlink from the **Lcl Task End Date** field on the CHFILE view
- Hyperlink from the **Task Details** field on the CHFILEQ view
- Issue the command

  CHFILED [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHFILED view appears, as shown in Figure 177.

```
03MAY2002  14:17:58 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHFILE===CHFILED=(BCVDVPC==BCVCD530)03MAY2002==14:14:38====MVCICS===D====1
> Target...............           BCVCD530
< Task Number..........               1330
  Transaction ID.......               PFIL

  Detach Date (Local)..          03MAY2002  File Name..........      CMRVS16
  Detach Time (Local)..         12:38:01.0  File Type..........     CICS FCT

  Start Date (Local)...          03MAY2002  Wait Time..........      1.36149
  Start Time (Local)...         12:37:07.0  Wait Count.........          740

  Response Time........           54.30980  CICS APPLID........     BCVCD530
                                           User ID............         BCVM
  CPU Time.............            2.83349  Terminal ID........         L060
                                           Terminal Network ID     TCPBL060
  History User Data....
                                           Program Name.......     PATFILE0
  Originating System...  USBMCN01.TCPBL060
  Remote SYSID.........

  Unit of Work ID......   92965AE78E440001
  Unit of Recovery ID..   B792965AE78E4463
```

Figure 204. CHFILED View

When hyperlinking on the **File Type** field, the actual view displayed depends on the record's file type.

- CICS FCT records are displayed in the CHFILEDF view. See Figure on page 293.
- MQ Series records are displayed in the CHFILEDQ view. See Figure on page 295.
- DB2 records are displayed the CHFILEDD view. See Figure on page 296.

Hyperlinks

The default hyperlinks defined for the CHFILED view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Number	CHFILEQ
File Type	CHFILEDF

CHFILEDF View

To display CICS file usage details:

- Hyperlink from the **File Name** field on the CHFILE view
- Hyperlink from the **File Details** field on the CHFILEQ view
- Hyperlink from the **File Type** field on the CHFILED view
- Issue the command

  CHFILEDF [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHFILEDF view appears, as shown in Figure 177.

```
03MAY2002  14:19:39 ------ MAINVIEW WINDOW INTERFACE(V4.1.00)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHFILE===CHFILEDF(BCVDVPC==BCVCD530)03MAY2002==14:19:11====MVCICS===D====1
> Target...........   BCVCD530
< Task Number......       1330   I/O Operation    Avg Time Tot Time Count
  Transaction ID...       PFIL ------------------ -------- -------- -----
                                Reads.............
  Detach Date (Lcl)  03MAY2002   Into............   0.0015   0.0765    50
  Detach Time (Lcl) 12:38:01.0   Set.............
                                 For update into.   0.0015   0.0765    50
  File Name........    CMRVS16   For update set..
                                 Next into.......   0.0001   0.0130   101
  File Type........   CICS FCT   Next set........
                                 Next updt into..
  I/O Waits........              Next updt set...
   Time............      1.361   Prev into.......   0.0001   0.0144   101
   Count...........        740   Prev set........
                                 Prev updt into..
  VOLSER...........              Prev updt set...
   First...........     BAB348 Start browse......   0.0015   0.0015     1
   Second..........            Reset browse......
   Third...........            End browse........                        1
                               Write............   0.0065   0.6512   100
                               Rewrite..........   0.0047   0.2361    50
                               Rewrite Delete....
                               Delete...........   0.2923   0.2923     1
                               Unlock...........
                               Other............

                               Total I/O Requests   0.0030   1.3615   455
```

Figure 205. CHFILEDF View

Hyperlinks

The default hyperlinks defined for the CHFILEDF view are as follows:

Field	Data Displayed
Task Num	CHFILEQ
CICS System	EZCREGN
Lcl Task End Date	CHFILED
File Name	CHFILEDF

CHFILEDQ View

To display MQ Series queue usage details:

- Hyperlink from the **File Name** field on the CHFILE view
- Hyperlink from the **File Details** field on the CHFILEQ view
- Hyperlink from the **File Type** field on the CHFILED view
- Issue the command

  CHFILEDQ [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHFILEDQ view appears, as shown in Figure 206.

```
24MAY2002  11:31:08 ------ MAINVIEW WINDOW INTERFACE(V4.1.01)MVCICS------------
COMMAND  ===>                                                 SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
>W1 =CHFILE===CHFILEDQ(BCVDVPC==BCVCD530)24MAY2002==11:30:57====MVCICS===D====1
> Target...........   BCVCD530
< Task Number......        256
  Transaction ID...       CKTI

  Detach Date (Lcl)  06MAY2002
  Detach Time (Lcl) 10:25:49.9

  File Name........   INITIATI    Queue ID...  CSQ4SAMP.INITIATION.QUEUE

  File Type........   MQSERIES

  I/O Operation....   Avg Time Tot Time Count
  -----------------   -------- -------- -----
  Open.............    32.2646  32.2646     1
  Close............
  Get..............
  Put..............
  Put1.............
  Other............

  Total Reqs.......    32.2646  32.2646     1
```

Figure 206. CHFILEDQ View

Hyperlinks

The default hyperlinks defined for the CHFILEDQ view are as follows:

Field	Data Displayed
Target	EZCREGN

Field	Data Displayed
Task Num	CHFILEQ

CHFILEDD View

To display CICS file usage details:

- Hyperlink from the **File Name** field on the CHFILE view
- Hyperlink from the **File Details** field on the CHFILEQ view
- Hyperlink from the **File Type** field on the CHFILED view
- Issue the command

  CHFILEDD [*parameter_set_name* [*region_name* [*task_number* [*task_timestamp*]]]]

  where

  parameter_set_name Is the name of a specific parameter set.

  region_name Is the name of a CICS region.

  task_number Is the task ID of a task.

  task_timestamp Is the 16-byte hexadecimal task dispatch timestamp.

The CHFILEDD view appears, as shown in Figure 177.

```
24MAY2002  11:38:54 ------ MAINVIEW WINDOW INTERFACE(V4.1.01)MVCICS------------
COMMAND  ===>                                                SCROLL ===> CSR
CURR WIN ===> 1        ALT WIN ===>
 W1 =CHFILE===CHFILEDD(BCVDVPC==BCVCD530)24MAY2002==11:33:37====MVCICS===D====1
> Target...........   BCVCD530
< Task Number......        110   I/O Operation    Avg Time Tot Time Count
  Transaction ID...       TSN2 ----------------- -------- -------- -----
                                Open..............
  Detach Date (Lcl)  07MAY2002 Close.............
  Detach Time (Lcl) 07:05:27.9 Select............   0.0000   0.0000     1
                                Fetch.............
  File Name........   NOTAVAIL Insert............
                                Update............
  File Type........        DB2 Delete............
                                Commit............
                                Other.............

                                Total I/O Requests   0.0000   0.0000     1
```

Figure 207. CHFILEDD View

Hyperlinks

The default hyperlinks defined for the CHFILEDD view are as follows:

Field	Data Displayed
Target	EZCREGN
Task Num	CHFILEQ

Chapter 11. SERVICE Option: Application Tracing

This chapter describes the MAINVIEW for CICS application trace facility, which can be accessed from Option S, SERVICE, of the Primary Option menu.

Requesting a Trace

You can issue requests to

- Start a trace easily through data entry panels on which options can be specified and defaults are displayed. Submitting the request invokes the trace data collection service (ATRAC).
- Move quickly from summary trace displays to detail displays of a specific event.
- Start a trace from an AutoOPERATOR EXEC.
- Start a series of trace requests automatically when the system starts or at your request.
- Log a trace to one or more VSAM data sets for later online recall or batch printing.
- Print a trace display to the BBI-TS Image log or your BBISPRNT data set.

These methods are described in the following sections.

Starting a Trace

A trace can be started by

- Using Option S.3, **TRACES**, from the Primary Option Menu.
  a. Select Option S.3 for a list of current traces.
  b. On the **COMMAND** line, type **ST** (Start Trace) to display the trace data entry setup panel.
- Defining ATRAC requests in a member of your BBI-SS PAS BBPARM data set.
- Writing an EXEC to issue the SET command for the ATRAC service. A Boole & Babbage AutoOPERATOR product must be installed.

  Use the IMFEXEC IMFC command followed by the service name, optional parameters, and an identifier for the target CICS region:

  IMFEXEC IMFC SET REQ=ATRAC SUMTRC1 TYPE=SUMMARY ELAP=5.0 TARGET=*cicsid*

Displaying a Trace

To display an active trace of completed transactions:

1. Use Option S.3, **TRACES**, to select the list of current traces.
2. Use the S line command to select one of the current traces. A scrollable list of all traced transactions is displayed. You can access the two detail and summary displays from the scrollable list.

To display historical trace data from a trace log data set:

1. Use Option S.4, **HISTORY TRACES**, to select the list of historical trace data sets.
2. Use the S line command to select one of the trace data sets. A scrollable list of all traced transactions is displayed. From that display you can access all of the more detailed displays as well as those that summarize the information.

Printing a Trace

A trace that has been logged to a VSAM data set can be printed by

- Using Option S.4, **HISTORY TRACES**, from the Primary Option Menu.
    a. Select Option S.4 for a list of trace log data sets, including those for current traces saved.
    b. Use the P line command to access a data entry panel to create a print job (under ISPF only). See P (PRINT) on page 323.
- Creating and submitting a batch job, as described in "Printing Trace Log Data Sets" on page 353.

If the trace was not logged, selected screens can be printed by

- Logging a series of trace displays to your BBI-TS Image log.
    a. In the **LOG** field of the display, type **Y**.
    b. Navigate through the displays you wish to save. All displays are logged until the LOG field is set back to N.
    c. Use BBSAMP member ILOGJCL to print the Image log data set. Instructions to select only a subset of displays are in the *MAINVIEW Administration Guide*, "Selecting and Printing Image Log Records."
- Logging selected screen images to your BBI-TS BBISPRNT data set.
    a. Press Print (PF4/16) after the display is presented.
    b. Use BBSAMP member SLOGJCL to print the BBISPRNT data set.

Stopping a Trace

A trace service can be stopped by

- Stopping the trace request with a Z line command.

  Use the Z line command from the Current Traces application (Option S.3) as described in "Controlling Active Traces (Option S.3)" on page 314.

- Setting a stop time for automatic completion of data collection.

  Specify the STOP value (as a time stamp or interval count) on the Start or Modify panel for the trace request. The collected data remains available for viewing until the trace is purged.

  Note: The TRTIME parameter in BBPARM member CMRBEX00 can be used to set a default trace duration that is primed in the Start Trace data entry panel.

- Purging a request from the list of Current Traces with a P line command.

  Use the P line command from the Current Traces application (Option S.3) as described in "Controlling Active Traces (Option S.3)" on page 314.

Note: A stopped trace is marked complete and stops collecting trace data, but the data remains available for viewing until the request is purged. A purge both stops data collection and deletes any accumulated data.

Collecting Trace Data

CICS application traces are activated and terminated transparently to the user as needed to satisfy trace requests. The trace data collection is activated or deactivated whenever such requests are received from the BBI-SS PAS in the CICS region.

The type of records that are traced depends on whether the SUMMARY or DETAIL option is specified in the trace request.

For detail tracing the Command Level global user exits, XEIIN and XEIOUT, are utilized. Up to 20 traces can be activated for a CICS target. If any trace specifies detail tracing, these exits are enabled for the CICS target and disabled when such traces are stopped. For either type of tracing, the MAINVIEW for CICS extractor needs to be active.

For each active application trace, there is a set of data collection buffers:

- Internal buffers in extended CSA used to hold the trace data.

  MAINVIEW for CICS currently utilizes these buffers to hold the performance detail records that are passed to the BBI-SS PAS.

- A pool of data collection buffers maintained in the BBI-SS PAS.

  These buffers exist in the BBI-SS PAS extended private area storage for each active trace. The data collector function in the BBI-SS PAS inserts the formatted variable length data into the trace display buffer associated with each active application trace. For size specification of these buffers, see "Starting a Trace" on page 299.

Trace Logging

The trace facility allows you to log both summary and detail trace data to external VSAM data sets.

Each trace request is assigned its own data sets. This allows the data from ad hoc application testing traces to be managed separately from data from traces set up by database administrators or systems programmers for system wide continuous surveillance of the total workload or thread exceptions.

To allow flexible space management, each trace can be logged to a single or to multiple data sets, either preallocated by the requester or automatically allocated and managed by the trace facility.

A casual user of the trace can use trace logging very simply by accepting all defaults, while the system administrator has all the options needed for complete automation and control.

Trace logging provides the following flexible reporting capabilities:

- All data for an active trace can be viewed online.

  If the desired data is no longer available in the online buffers, a HISTORY expand button on the trace displays (LTRAC, STRAC, DTRAC) can be used to retrieve the data from the current log data set and placed online where it can be viewed and analyzed with all the online trace displays.

- Historical trace data can be viewed online at any time.

  All trace log data sets are tracked in an online trace directory. The History Traces application (Option S.4) displays these data sets and allows online recall with a simple line command, whether the trace was written the same day, last night, a year ago, or even on another system. This provides these benefits:

  – Data from completed traces is saved in the trace logs so that no data is lost during system interruptions.

  – The older data from an active trace with multiple log data sets can be accessed through this application.

  – When the current log data set for an active trace is accessed through this directory, a CURRENT expand button on the trace displays provides automatic switching to displays of the online buffer data.

  – Online administration of the trace logs simplifies the tracking of which traces are valuable enough to keep for later reporting and which should be deleted after review. An additional option allows the submission of a batch job to print any trace.

  – Traces can be kept as transaction profiles for later comparisons after application or system changes that may affect performance. A trace of an application on the development system can be compared to the same trace on production to easily spot access path changes or performance degradation.

- Very large applications can be traced.

  The logging facility also enables tracing of long-running applications without loss of data because of online buffer limitations.

CICS Application Trace (ATRAC)

Data collection must be activated by starting the trace before data can be displayed with the application trace services. There are several ways to activate a trace request as described in “Requesting a Trace” on page 299. The usual way is from the online data entry panels. These panels can be accessed by typing ST (Start Trace) on the command line of the list of current traces (Option S.3 from the Primary Option Menu).

The online data entry panels present all trace options. Specify the options you want and press Enter. The activation of any trace request initiates data collection from the specified target. Multiple trace requests with different selection criteria can run concurrently. Thus, you can tailor your trace data for specific needs.

Starting a Trace

When Start Trace (ST) is requested, the initial data entry panel displays a default request for a summary trace, as shown in the TYPE field of Figure 207. Changing TYPE to D provides the standard detail trace.

Start CICS Trace Request Panel: A trace can be started using only this panel. However, you can access additional data entry panels to override default settings to specify:

- Exception filters (to reduce the amount of data saved)
- Detail trace options (to trace additional events)
- Trace logging options (to specify additional data set allocation and processing options)

```
BMC SOFTWARE -----------  START CICS TRACE REQUEST -------- PERFORMANCE MGMT
COMMAND ===>                                                 TGT==> CICSPROD

PARM     ==>         (Trace identifier)     START ==>           &t1.
TYPE     ==> S       (S-Summary,D-Detail)   STOP  ==>           &t2.
STORAGE  ==> 500K    (Display buffer size)  WRAP  ==> Y       (Y/N wrap buffer)
LOGTRAC  ==> N       (Y/N log trace)        RST   ==> HOT     (HOT,PUR,QIS)
TITLE    ==> CICS APPLICATION TRACE

Specify Selection Criteria:
   TRANS ID ==>
   PROGRAM  ==>
   USER     ==>
   TERMINAL ==>

Specify additional trace options:    (*   = processed)
   Exception Filters          ==> N  (Y/N)
   Detail Trace Options       ==> N  (Y/N)
   Trace Log Data Set Options ==> N  (Y/N)

                                          Press ENTER to process; END to cancel
```

Figure 207. Start CICS Trace Request Panel.

Keyword	Operand/Description
PARM	***id***
	If you want to run multiple trace requests, specify an ID in the PARM field to make the trace unique. However, blank can also be used as an

identifier for one trace. The identifier is used to specify which set of trace data is to be displayed with the application trace services.

TYPE

S|D

S (the default) requests a summary application trace of completed transactions.

D requests a detail application trace that also collects major events in the life of the transaction.

STORAGE

n

Determines the size of the trace display buffer to contain the trace entries per active trace. The size is specified in K format, where K is the number of 1024 byte blocks; for example, 200K is

200*1024=204800 bytes

This value is primed from the default specified in CMRBEX00. If no value is specified, the value from BBIISP00 is used.

Note: For a detail trace, this value must be at least four times TRSIZE. If the specification is less than four times TRSIZE, it will be adjusted upward.

LOGTRAC

N|Y

Specifies whether to write all trace records for this request to a unique trace log data set (TLDS) for this trace. If Y is specified with no additional summary or detail trace logging options (see BMC SOFTWARE), a single data set is allocated dynamically using the defaults specified in CMRBEX00 for this CICS.

Note: You must be authorized to use dynamic allocation.

TITLE

c...c

Defines a title for the trace (1 to 24 characters). If you are logging the trace, Boole & Babbage recommends that you specify a more specific title to help identify the contents of this trace at a later time.

START

hh:mm:ss

Requests trace start time. If the time specified is more than 10 minutes prior to the current time, 24 hours are added to the specified time and the request is started the next day. To start a request at midnight, specify 24:00:00.

Default is the next full minute.

STOP

nnn|hh:mm:ss

Requests trace stop limit as a timestamp or number of minutes to process. The default is set from TRTIME in CMRBEX00.

Processing ends at the end of the last interval before the specified stop time. This time is displayed in the STOP field when the request is viewed

with the R, P, M, and W line commands from the Current Traces application.

WRAP **Y|N**

The buffer is used in a wraparound method to store the entries and the wrap can be automatic, WRAP=Y (default), or user-controlled, WRAP=N.

RST **HOT|PUR|QIS**

Defines the restart option to be used when a service is quiesced because of an inactive CICS region or BLK=RRR request.

HOT Restarts the trace automatically without the loss of previous data.

PUR Purges the trace automatically when the target CICS starts.

QIS Keeps the trace in a quiesced state until it is purged by an authorized user.

Selection Criteria Processing: A list of operands can be specified in each of the selection criteria fields; for example,

```
PROGRAM ===> PRGM01,PRGM02
```

Note: For the selection to match a trace record, selection criteria keywords are connected with an AND operation, and the operands within a keyword are connected with an OR operation.

TRANS ID ***id***

Qualifies a workload trace by the transaction ID used to process the task.

PROGRAM ***program name***

Qualifies a workload trace by the program used to process the task.

USER ***id***

Qualifies a workload trace request by the user ID used to process the task.

A 1- to 3-character CICS OPID or a 1- to 8-character user ID can be specified.

TERMINAL ***id***

Qualifies a workload trace request by the 1- to 4-character terminal ID or the 1- to 8-character netname used to process the task.

Additional Trace Options Processing: You can access additional data entry panels to override default settings to specify exception filters, detail trace options, or trace log data set options by specifying Y for one or more of the additional trace options.

When you select Y for an option, you are presented with an additional menu. Once you are finished with that screen, press the Enter key to process. If there are more extension screens to be processed, you are presented with the next screen without returning to the Start CICS Trace Request panel.

When all extension screens are processed, the Start CICS Trace Request panel displays an asterisk (*) next to each processed option. The request is not submitted until all the options display either N or *. This gives you the opportunity to review and change your options before sending the request; for example,

- If you change * to N, the items specified on that extension menu are dropped.
- If you change * to Y, that extension menu is displayed primed for update with the values previously specified.
- If you change N to Y, that extension menu is displayed.

Note: Once a trace is activated, only certain options can be changed. To change the others, the trace must be stopped and reactivated. See "Modifying a Trace" on page 316.

Selecting Trace Data for Retention

The Exception Filters are keywords that retain only the required data in the online trace buffer or the trace log data set (TLDS). They can be used to

- Detect occurrences of specific exception conditions
- Limit the amount of buffer or DASD storage required by retaining only the most interesting transactions for analysis

If you specified Y in the Exception Filters field on the Start CICS Request panel, the data entry panel shown in Figure 208 is displayed.

Note: Data that causes a trace entry to be filtered is highlighted in the STRAC display (see "STRAC - Summary Trace Entry" on page 331).

```
BMC SOFTWARE ---------- CICS TRACE EXCEPTION FILTERS ----- PERFORMANCE MGMT
COMMAND ===>                                                 TGT -- CICSPROD

Specify Exception Filters:
 RESPONSE     =>            CPU TIME     =>           SUSPEND TIME =>
 FC CALLS     =>            IRC WT CNT   =>           DSA STG HWM  =>
 FC I/O CNT   =>            IRC WT TIME  =>           DSA STG OCC  =>
 FC I/O TIME  =>            DB I/O CNT   =>           EDSA STG HWM =>
 FC XCPT CNT  =>            DB I/O TIME  =>           EDSA STG OCC =>
 FC XCPT TIME =>            ABENDS ONLY  =>

Specify Exception Resource Names:
 FILE         =>
 4th GL       =>
 PLAN         =>
 PSB          =>
```

Figure 208. CICS Trace Exception Filters Panel

Exception Filter Keyword Descriptions: The keywords and their values are described below. The keyword values are user-defined. A < prefix can be used with a numeric value to define a less-than condition. If a numeric value is not defined as a less-than condition, it is compared to a greater-than or equal-to condition. The specified keywords are ORed; a trace record is retained if any one of the comparison conditions is valid.

For example,

RESPONSE => 5.5

Collects only records with a response time equal to or greater than 5.5 seconds.

FC CALLS => <5

Collects only records that have less than 5 file control calls.

Table 17 is a listing of the keywords with a description of each value that can be used. Time can be specified either in hours, minutes, and seconds as ***hh:mm:ss*** or in seconds as ***ss*** (maximum of three decimals). Other numeric keywords can be specified in K; for example, 100K.

Table 17. Exception Filter / Resource Name Keyword Descriptions

Keyword	**Description**
RESPONSE	Transaction response time
FC CALLS	Number of File Control calls
FC I/O CNT	Number of File Control I/O waits
FC I/O TIME	File Control I/O time
FC XCPT CNT	Number of File Control exceptions
FC XCPT TIME	File Control exception wait time
CPU TIME	Transaction CPU time
IRC WT CNT	Number of inter region waits
IRC WT TIME	Inter region wait time
DB I/O CNT	Number of database I/O waits
DB I/O TIME	Database I/O time
ABENDS ONLY	Only transactions that have ABENDed (Y or N)
SUSPEND TIME	Suspend time
DSA STG HWM	DSA storage high-water mark
DSA STG OCC	DSA storage occupancy
EDSA STG HWM	EDSA storage high-water mark
EDSA STG OCC	EDSA storage occupancy
FILE	Filename
4GL	4GL name
PLAN	DB2 plan name
PSB	PSB name

Starting a Detail Trace

To start a detail trace, specify D in the TYPE field on the Start CICS Trace Request panel shown in Figure 207 on page 303.

A maximum of 20 detail traces can be activated per target. An ID must be specified as a parameter to make each request unique. Tracing begins immediately even for currently active threads. If a transaction is already executing, the data for events that occurred before the trace started will be missing.

Note: You must be authorized to make detail trace requests. An entry of TRACE=D in member $USERID of the BBPARM data set authorizes detail trace requests if no external security package is installed. Consult your site security administrator for an equivalent authorization with an external security package.

Detail Trace Options: To change the default options, access the following extension data entry panel by specifying Y in the Detail Trace Options field on the Start CICS Trace Request panel shown in Figure 207 on page 303. After changing this panel, press the Enter key to process the options.

```
BMC SOFTWARE ----------- DETAIL TRACE OPTIONS ------------- PERFORMANCE MGMT
COMMAND ===>                                                  TGT -- CICSPROD


Specify trace entries to include:
     File / Database  ===> Y      Temp Storage     ===> Y
     Storage Control  ===> Y      Terminal / APPC  ===> Y
     Program Control  ===> Y      Task Control     ===> Y
     Interval Control ===> Y      Transient Data   ===> Y
     Journal / Sync   ===> Y      Error Handling   ===> Y

Specify event compression:
    GROUP EIP   ===> N  (Y/N)

Specify data collection buffer options:
    TRSIZE      ===> 400K     (Trace buffer size)
    TRBUFF      ===> 20       (# of trace buffers)
```

Figure 209. Detail Trace Options Panel

Event Selection:

A default application trace request collects all events in the life of the transaction, including all exception events.

To collect only certain types of events, specify N for those categories you want to exclude.

See “Event Data” on page 343, for a list of the events collected in each of these categories.

Event Compression:

GROUP EIP **Y|N**

Groups identical EIP calls into one call to reduce storage usage.

Data Collection Buffer Options:

TRSIZE ***nnn*K**

Is the size of the trace collection buffer. Buffer size can be set in a range from 100K to 400K. You may need to increase the size to trace long-running applications.

This number is rounded to a multiple of 4K. This buffer is allocated to individual tasks to receive trace data from CICS. At buffer overflow or task termination time, the content of the buffer is transferred to the display buffer (defined by the STORAGE parameter) and to the trace log data set if logging is requested.

The default is obtained from member CMRBEX00 of the BBPARM data set. Boole & Babbage recommends a starting size of 400K that should not be reduced below 100K.

Storage constraints dictate that the size of the trace buffers must be balanced with the number of trace buffers. A given transaction (task) can use several buffers simultaneously if the size of the buffers is relatively small. In this case, you may lose some trace data if a trace buffer overflow occurs and trace logging is not active. On the other hand, fewer very large trace buffers can result in a complete loss of transaction data when there are not enough trace buffers for all concurrent transactions.

TRBUFF ***nnn***

Is the number of trace buffers to allocate for a trace request. This determines how many concurrent tasks can be traced.

TRBUFF and TRSIZE together define the total capacity for receiving trace data from CICS. (STORAGE defines the real-time display capacity.)

The number of trace buffers should be at least double the number of concurrent active tasks being traced in CICS plus 20%. Preferably, it should triple that number. The extra capacity is needed to handle buffer overflow and the turnaround delay in unloading data into the display buffer.

The default is obtained from member CMRBEX00 of the BBPARM data set.

For example, to trace a long-running application, qualify the request so that only one task is traced at a time. Then set TRBUFF to 3 and increase TRSIZE to hold more events.

If you specify logging, each filled buffer is written to VSAM. You can use online recall from the trace log (History Trace) to see the complete task activity. TRSIZE can therefore be kept smaller.

Conversely, if you are tracing online transactions, you will probably need to set TRBUFF higher to capture multiple concurrent tasks, but the number of events (and TRSIZE) is smaller.

Specifying Trace Logging Options

To specify additional trace logging options, type Y in the Trace Log Data Set Options field of the Start CICS Trace Request panel shown in Figure 207 on page 303 . Figure 210 shows the Trace Log Data Set Options menu that specifies additional trace logging options.

```
BMC SOFTWARE --------- TRACE LOG DATA SET OPTIONS ------- PERFORMANCE MGMT
COMMAND ===>                                                 TGT -- CICSPROD

Number of Logs   ===> 1          (# data sets; >1 for auto switch when full)
First Log DSN    ===>
                  Low level qualifier of DSN must be V01
                  Blank for default: CMR1X.CICSPROD.BLANK.mmmdd.Thhmm.V01
                  Names without quotes will be prefixed with CMR1X

Overwrite logs   ===> Y    (Y/N) (Action when all logs used)
Archive PROC     ===>            (Blank for none/PROCLIB member name)
Log switch time  ===>            (HH:MM that a log switch is requested)

Disposition      ===> NEW  (OLD/NEW)  If NEW, specify options below:

 Volumes         ===> (V00001,V00002,V00003)
 Primary CYLS    ===> 3                SMS Storage Class    ===> SMSSTOR
 Data DSN Suffix ===> D                SMS Data Class       ===> SMSDATA
                                       SMS Management Class ===> SMSMGMT
```

Figure 210. Trace Log Data Set Options Panel

Number of Logs

Is the number of allocated trace log data sets. Specify more than one for continuous traces. This allows automatic switching when a log data set is full.

First Log DSN

Is the name of the first log data set to be allocated.

If left blank, a default name is constructed as &TRPREFIX.&CICSID.&TRACEID.mmmdd.Thhmm.V01 where

- &TRPREFIX is your user ID or the prefix specified in CMRBEX00.
- &CICSID is the target CICS region ID.
- &TRACEID is the identifier specified in the PARM field on the first Start CICS Trace Request panel.
- mmmdd is the current month and day.
- Thhmm is the current time.
- V01 is the required suffix.

If quotation marks are omitted for the log data set name, the specified value is prefixed with TRPREFIX as specified in CMRBEX00. If TRPREFIX is not specified, your user ID is used for the prefix. If quotation marks surround the name, it is allocated exactly as specified.

For example, if there is no TRPREFIX specification in CMRBEX00, you can specify

TEST.V01

to allocate userid.TEST.V01.

You can specify up to an 8-character suffix for the data component (see the Data DSN Suffix description on page 312). However, if you want a name totally different from the cluster data set name, you must preallocate the data set.

Overwrite logs

Y|N

Indicates the action to be taken when a log data set is about to be used for trace data without having been reset. Y means that existing data can be overwritten; N means that logging should be quiesced.

Note: This field has no effect if the data set has been reset.

Archive PROC

Is the name of the entry in PROCLIB to archive a log data set when it is full, logging is switched to the next data set, or the trace completes normally. (See the sample archive job in BBSAMP member CMRBARC; see "Trace Log Data Set Jobs" on page 326.)

Log switch time

hh:mm

Specifies the time an automatic log switch from the current log to the next log will occur. Valid only if Number of Logs > 1.

Note: If another log is not available at that time (status of EMPTY or RESET), the switch cannot be made.

Disposition

OLD|NEW

OLD indicates all the data sets exist and are valid trace data sets. (See the sample job for allocating a trace log data set in BBSAMP member JXT011; see "Trace Log Data Set Jobs" on page 326.) Existing data is overwritten if Overwrite logs = Y.

NEW (the default) indicates none of the data sets exist. All the data sets are allocated when the trace request is processed. If any of the data sets cannot be allocated, the trace request fails and the data sets successfully allocated are deleted.

Note: If your user authorization specifies TRALLOC=NO, only OLD is accepted.

Volumes

Identifies the volume(s) to use when allocating a trace log data set. You can specify up to 7 volumes. The default value specified in CMRBEX00 with the TRVOLS keyword is SYSDA.

When the number of logs is 1, the data set is allocated on the first volume. When the number of logs is greater than 1, the data sets are allocated alternately on each specified volume (if there is enough space) until all data sets are allocated.

Note: A volume specification replaces any SMS class specification. However, if your data center is SMS-controlled, the volume specified may be overridden by your SMS criteria.

SMS-controlled sites do not need to specify volume(s). Non-SMS-controlled sites must specify volume(s) to avoid an IDCAMS-defined cluster error.

Primary CYLS Is the primary allocation in CYLS for trace log data sets. The default value specified in CMRBEX00 with the TRCYL keyword is 3.

Data DSN Suffix Is the suffix to be appended to the cluster DSN to make the DSN of the data component. The default value specified in CMRBEX00 with the TRSUFFIX keyword is D.

SMS Storage Class Is the name of the SMS Storage Class to be used when allocating this trace data set. The default is specified in CMRBEX00 with the TRSMSSCL keyword.

SMS Data Class Is the name of the SMS Data Class to be used when allocating this trace data set. The default is specified in CMRBEX00 with the TRSMSDCL keyword.

SMS Management Class Is the name of the SMS Management Class to be used when allocating this trace data set. The default is specified in CMRBEX00 with the TRSMSMCL keyword.

Log Switching Considerations

You can assign a set of logs for each trace when submitting a trace request. Log switching to the next available data set occurs when

- A log data set is full.
- At a time, such as midnight, specified with the trace request.
- You request an immediate log switch with the I command on the Current Traces display.

If an archive started task was specified on the trace request, that STC is run. It can

- REPRO a copy of the data to tape or another disk data set.
- Execute a step to flag the data set for reuse.

If no data set is available and overwriting logs was specified on the trace request, logging switches to the oldest trace data set.

Replicating a Trace Request

Once you have activated a trace request from the data entry panels, you can easily submit another request with similar options. To replicate an existing request:

1. Access the Current Traces application (Option S.3).
2. Use the R line command to select an active trace that is similar to the one you want to activate.
3. Specify a unique identifier in the PARM field.
4. Modify, as needed, any values that are prefixed with ==>.
5. Submit the new request.

Controlling Active Traces (Option S.3)

To control active traces using the Current Traces application, either

- Select Option S.3, **TRACES**, from the Primary Option Menu
- Select **Application Trace** from the EZCICS or EZCFAST view in windows mode.

```
BMC SOFTWARE  -------------- CURRENT TRACES --------------  PERFORMANCE MGMT
COMMAND ===>                                                 TGT ===> CICSPROD
                                  INPUT    INTVL ==> 3      TIME --  14:31:36
COMMANDS: ST (START APPLICATION TRACE), HT (HISTORY TRACES)
LC CMDS:  S (SELECT), W (SHOW),      M (MODIFY), I (SWITCH), Z (STOP)
          P (PURGE),  R (REPLICATE), H (HELP),   Q (QUIESCE LOGGING)
LC  PARM     TITLE                      USER ID  TARGET  SEC AREA  STAT  LOG
    TRACE1   CICS APPLICATION TRACE     CMR1X    CICSPROD A  WKLD  ACTV  ACT
    TRACE2   TROUBLESOME TRANSACTION    CMRIX    CICSPROD A  WKLD  ACTV  QIS
    TRACE3   MORE TROUBLE SHOOTING      CMR1X    CICSPROD A  WKLD  ACTV
    ***************************** END OF REQUESTS ***************************
```

Figure 211. Current Traces Application

This application is similar to the Active Timer Requests application (Option S.1), except the list of services shows only current trace requests. This chapter discusses the uses of this application that apply only to current traces. For a complete description of all line commands and field names.

The following additional column shows the logging status:

LOG The status of logging for this trace request.

- **ACT** Logging is active.
- **QIS** Logging is quiesced.
- **SUSP** Logging is suspended because the trace is quiesced. Logging resumes when the trace restarts.
- **blank** Logging was not requested for this trace.

The ST command accesses the Start CICS Trace Request panel and each of the additional options panels. Use this command when you want to start a trace. (See “CICS Application Trace (ATRAC)” on page 303.)

The HT command accesses the History Traces application. Use this command to access and control the current and historical trace logs. (See “Managing History Traces (Option S.4)” on page 319.)

From this list of current traces you also can use line commands to

- Display the collected trace data
- Show the trace options
- Modify a trace
- Purge a trace
- Switch log data sets
- Quiesce logging

Displaying Trace Entries

Use the S (Select) line command to access a scrollable list of traced transactions held in the online storage buffer. The LTRAC display for the selected trace is shown. From here, all other trace displays can be accessed with EXPAND. (See “Application Trace Displays” on page 327, and “LTRAC - CICS Trace Entries” on page 329.)

Showing Trace Options

To view the options that were specified with a trace request, use the W (Show) line command. The W line command can be invoked from either the Current Traces application (Option S.3) or the History Traces application (Option S.4).

The Start CICS Trace Request panel and each of the additional options panels are shown for the selected trace. (See “CICS Application Trace (ATRAC)” on page 303.)

Each of these panels show the options specified when the trace request was submitted. However, the Show Resource Monitor Request panel has additional fields that are obtained by reading the current trace log data set.

```
BMC SOFTWARE --------- SHOW RESOURCE MONITOR REQUEST ------ PERFORMANCE MGMT
COMMAND ===>                                                 TGT ===> CICSPROD

                       SDCT - CICS STORAGE DUMPS

PARM:                                      (Resource Selection Parameter)

INTERVAL:   00:01:00  START:   09:18:00   STOP:                   QIS:   YES

WMAX:       3         WMSG:                WLIM:   10   WIF:   1    WIN:   1

RST:        HOT                            (Restart Option: HOT,COLD,PUR,QIS)

TITLE:      CICS STORAGE DUMPS             (Title)

PLOTMAX:                                   (Maximum PLOT X-Axis Value)

RANGES:                                    (1-4 Range Distr. Upper Limits)

LOG:        NO                             (NO,ATSTOP,ATPD,ATINTVL,ATWARN)
```

Figure 212. Show Trace Logging Specification Panel

The Log DSN field shown in Figure 212 is changed to be either the DSN of the current log data set if the trace is active or the last data set used if the trace is complete.

The additional fields are:

Recording Start Is the date and time that this data set was activated for logging.

Recording Stop Is the date and time of the last record written to this data set.

Percent Used Is the number of pages used divided by the number of pages allocated, expressed as a percent, for this data set.

Data Lost Indicates whether any data was lost while writing to this log data set.

Status The status of the log data set.

EMPTY Contains no trace records.

UPDATE Is being updated.

USED Contains valid trace data.

RESET Contains valid trace data and has been flagged for reuse.

INCOMP Was not successfully closed (or archived) after an update; for example, in a system failure.

Modifying a Trace

To modify some of the options for an active trace, use the M (Modify) line command.

The Start CICS Trace Request panel and each of the additional options panels are shown for the selected trace. (See "CICS Application Trace (ATRAC)" on page 303.)

All values prefixed with ==> can be modified.

Note: You cannot modify the LOGTRAC option after the trace has started. Thus, you cannot start or stop logging in the middle of a trace with a Modify command.

The following table describes several modifiable options you might want to change after starting a trace where logging is already active:

Table 18. Modifiable Logging Options

Panel Option Name/Keyword	Possible use
Overwrite logs/TRREUSE	Changing from Y to N prevents overlaying data that has not been archived. Changing from N to Y assures that a data set is always available for new trace data, but old trace data may be overlaid before it can be archived.
Log switch time/TRSWTIME	Allows you to change the time when a log switch occurs. For instance, you might want to add a data set by increasing TRNUMDS and then force a switch to free up the current data set.
Archive STC/TRARCSTC	Allows you to change the name of the archive job, perhaps to archive to a different set of archive data sets.

Table 18. Modifiable Logging Options (Continued)

Panel Option Name/Keyword	Possible use
Number of logs/TRNUMDS	Allows you to increase or decrease the number of log data sets. If TRNUMDS is increased and TRDISP=NEW, the additional data sets are allocated before the modify request is considered successful.
Volumes/TRVOLS, Primary CYLS/TRCYL, SMS Storage Class/TRSMSSCL, SMS Management Class/TRSMSMCL, SMS Data Class/TRSMSDCL	If TRDISP=NEW and you are adding log data sets by increasing TRNUMDS, you may want to change the allocation parameters for these new data sets to cause them to be allocated on different volumes, or to increase their size.

Note: If the number of logs is increased using the Modify command, the additional log data sets must be successfully allocated before the request is considered successful. If they cannot all be allocated, the request fails and any additional data sets that were dynamically allocated (DISP=NEW) are deleted. Logging continues with the original number of log data sets.

Stopping a Trace

To stop an active trace, use the Z (Stop) line command.

Note: To issue the Z line command for traces other than your own, you must have the authority to purge any request. This is specified in the user authorization member as PMACC=#.

Purging a Trace

To purge an active trace, use the P (Purge) line command.

Note: To issue the P line command for traces other than your own, you must have the authority to purge any request. This is specified in the user authorization member as PMACC=#.

Switching Log Data Sets

To switch from the current log data set to the next available one, use the I (Switch) line command.

An archive request for the log data set just inactivated is started if one was specified on the trace request. If the switch command is issued and only one log data set is defined, logging either reuses the same data set (TRREUSE=Y) or quiesces (TRREUSE=N).

Note: To issue the I line command for traces other than your own, you must have the authority to purge any request. This is specified in the user authorization member as PMACC=#.

Quiescing Logging

To quiesce logging for a trace, use the Q (Quiesce Logging) line command.

Once quiesced, logging cannot be restarted. The trace continues to run, but no data is written to the log. To restart logging, you must purge and reset the trace.

Note: To issue the Q line command for traces other than your own, you must have the authority to purge any request. This is specified in the user authorization member as PMACC=#.

Replicating a Trace

To replicate a trace, use the R (Replicate) line command.

The Start CICS Trace Request panel and each of the additional options panels are shown for the selected trace. (See "CICS Application Trace (ATRAC)" on page 303.)

Each of the panels show the options specified when the original trace request was submitted. All values prefixed with ==> can be modified.

Managing History Traces (Option S.4)

The History Traces application allows you to access and control the current and historical trace logs for all CICS regions managed by a BBI-SS PAS. This application can be accessed by

- Option S.4, **HISTORY TRACES**, from the Primary Option Menu
- The HT application transfer command

It provides

- Online recall of trace data
- Review of trace options
- Online administration of the data sets (purge, free, verify, reset, archive)
- Registering of trace log data sets created on other systems

Trace Directory

The trace directory is a VSAM data set that contains an entry for every trace log data set that is known to the BBI-SS PAS. The DSN of the directory must be specified in PARMLIB member BBIISP00 with the keyword TRDIR=; there is no default. The trace directory is allocated dynamically at BBI-SS PAS start. Trace logging can occur only when a trace directory is allocated successfully.

Trace log data sets are tracked as long as the data sets exist, but entries can be deleted or added to the directory to allow logs to be moved between systems or restored after being archived.

There is no automatic updating of the directory from events outside the BBI-SS PAS system. There is a batch utility to update your directory for data sets that have been deleted or archived. For more information on managing the trace directory, see the *MAINVIEW for CICS Customization Guide*.

Displaying Historical Trace Data

The History Traces application lists current and historical trace log data sets and allows them to be selected and loaded. You are then presented with the standard LTRAC display and can navigate through the various displays in the same way as for a current trace. The message in line 4 specifies ENTRIES IN DATASET instead of ENTRIES IN BUFFER.

In addition, for active or complete traces that have not yet been purged, it is possible to move between the display of active trace data in the buffers and the display of trace history data that has already been written to the current trace log data set. This option is available on LTRAC, STRAC, and DTRAC, and is effected with a select button on the EXPAND line.

- The button displays HISTORY if the display is from a current trace with logging. You can view the history trace data set for that trace by selecting the HISTORY button.
- The button displays CURRENT if the display is from a trace log data set for a still-active trace or a complete trace that has not yet been purged. You can view the active trace data still in the buffers by selecting the CURRENT button.

Note: In most cases, HISTORY will show more data than CURRENT. But just after a log switch, there can be more data in the online display buffers than is available on this new data set. However, the History Traces application also allows you to go back to read the previous log data set.

Target Specification

The target for the History Traces application can be any target that is controlled by this BBI-SS PAS. If the target of the trace in the selected data set is different from the current application target, LTRAC, STRAC, and DTRAC show the historical target in the HIST TGT field. The standard TGT field continues to show the target value from the History Traces panel.

Using the History Traces Application

The History Traces application displays a menu with one row per log data set in the directory. The initial display is in descending order of date and time but can be sorted by any column. For example, sort by TRACEID if you want to see all the data sets for one trace together. Sample displays are shown in Figure 213 and Figure 214 on page 321.

```
BMC SOFTWARE  ------------ HISTORY TRACES  ---------------  PERFORMANCE MGMT
COMMAND ===>                                                 TGT ===> CICSPROD
                                        TIME --  09:36:34  SCROLL ===> CSR
COMMANDS: SORT, LOCATE, NEW, STOP, START
LC CMDS:  S (SELECT), W (SHOW), P (PRINT), D (DELETE), E (RESET)
          V (VERIFY), N (NEW), A (ARCHIVE), F (FREE)

DIRECTORY:    CIR4.LL1X.TRACEDIR
ENTRIES USED: 1,209  FREE:   201
                                                              SCROLL RIGHT >>>
LC  DATE------TIME  TRACEID  TITLE                USERID   TARGET   STAT   ACTV
    97/09/08 22:00  LEOTST01 LEOS DETAIL TRACE    CIR4     CICSPROD  INV
    97/09/07 21:00  DET1     WORKLOAD DETAIL 1    CIR2     CICSPROD  USE   READ
    97/09/05 00:00  TASKHIST TASK HISTORY         BABUSERS CICSPROD  UPD   WRIT
    *************************** END OF DATA ********************************
```

Figure 213. History Traces Application (Before Scrolling Right)

Scroll right to see additional data:

```
BMC SOFTWARE  ------------- HISTORY TRACES ---------------  PERFORMANCE MGMT
COMMAND ===>                                                 TGT ===> CICSPROD
                                          TIME --  09:36:34  SCROLL ===> CSR
COMMANDS: SORT, LOCATE, NEW, STOP, START
LC CMDS:  S (SELECT), W (SHOW), P (PRINT), D (DELETE), E (RESET)
          V (VERIFY), N (NEW), A (ARCHIVE), F (FREE)

DIRECTORY:    CIR4.LL1X.TRACEDIR
ENTRIES USED: 1,209  FREE:   201
                                                            SCROLL LEFT <<<
LC  DATE------TIME  TYPE  DSN                                      VOLSER
    97/09/08 22:00  DET   CIR4.LL1X.CICSPROD.LEOTST01.JUN28.T2200.V01  ARCHIV
    97/09/07 21:00  DET   CIR21234.WORKLOAD.DETAIL1X.TEST1234.V02      BAB001
    97/09/06 00:00  SUM   CIR2.BL1X.CICSPROD.TASKHIST.JUN01.T0000.V01  BAB303
    **************************** END OF DATA ***********************************
```

Figure 214. History Traces Application (After Scrolling Right)

Field Definitions

DIRECTORY Is the DSN of the directory.

ENTRIES USED Is the number of entries in the directory that have been used.

FREE Is the number of entries in the directory that have not been used. This field is highlighted if fewer than 10 entries remain.

Note: You can then use the batch maintenance jobs described in the next section to clean up or expand the directory.

DATE----TIME Is the date and time that logging was activated on this data set.

TRACEID Is the trace identifier that was specified when the trace was requested.

TITLE Is the title specified when the trace was requested.

USERID Is the ID of the user that requested the trace.

TARGET Is the target that was specified when the trace was requested. This is the CICS region or DB2 subsystem (if MAINVIEW for DB2 is installed) on which the trace was made.

STAT Is the status of the log data set contents.

- **INV** Is not a valid trace log data set. The exact reason for the failure is contained in a message written to the BBI journal.
- **NOC** Is not cataloged.
- **RES** Contains valid trace data and has been flagged for reuse.
- **UPD** Is being updated.
- **USE** Contains valid trace data and was closed successfully.
- **INC** Was not successfully closed (or archived) after an update; for example, in a system failure.

	EMP	Is empty.
ACTV	Is the status of log data set activity. Possible values are:	
	READ	Is being read by one or more users, but is not being written to.
	WRITE	Is being written to by an active trace.
	R/W	Is being written to by an active trace and is being read by one or more users.
	ALLC	Is allocated to a currently active trace.
	blank	Is not currently in use.
TYPE	Is the type of trace, either SUM (summary) or DET (detail).	
DSN	Is the log data set name.	
VOLSER	Is the volume serial name of the first volume used for this data set.	

Primary Commands

The following primary commands can be typed on the **COMMAND** line:

- **SORT** by any column. Any of the column data in the display can be sorted by specifying the first two characters of the column heading with the SORT command.

  DA By the date and time that logging was activated on this data set.

  Note: DATE-TIME is treated as one field so you cannot sort by time without also sorting by date.

  TR By trace identifier.

  TI By title.

  US By user ID.

  TG By target.

  ST By status of log data set contents.

  AC By status of log data set activity.

  TY By type of trace.

  DS By log data set name.

  VO By volume serial name.

- **LOCATE** an entry by the current sort column (similar to ISPF LOCATE member command).

- **NEW** presents a data entry screen to manually add other trace data sets to the directory. For example, you can move them from one system to another. Specify the DSN only; the application verifies automatically each log DSN entered.

Figure 215 shows a sample data entry panel that has been updated with four data sets to be added to the directory. The RESPONSE field shows the results of the processing after Enter is pressed.

```
BMC SOFTWARE  ------ CREATE TRACE DSN ENTRIES ------------  PERFORMANCE MGMT
COMMAND ===>                                                 TGT ===> CICSPROD
                                                             TIME --  09:36:34

 DIRECTORY: CIR4.LL1X.TRACEDIR

 SPECIFY TRACE DATASET NAME(S), ONE NAME PER ROW.
 THE HEADER RECORD IN EACH DATA SET WILL BE READ TO CREATE THE DIRECTORY ENTRY.

        LOG DATA SET NAME                              RESPONSE
        --------------------------------------------   -----------------------
    1.  CIR4.LL1X.CICSPROD.LEOTST01.NOV28.T2200.V02    OK
    2.  CIR4XXXX.NODE2XXX.NODE3XXX.NODE4XXX.V03        WARN - NOT TLDS
    3.  CIR4.DUPLICATE.ENTRY.V01                       ERROR - DUPLICATE
    4.  CIR4.TEST.DO.NOT.EXIST.V91                     WARN - DOES NOT EXIST
    5.
    6.
    7.
    8.
    9.
    10.

Press ENTER to confirm; END to cancel.
```

Figure 215. Panel for New Primary Command

- **STOP** to close/deallocate the directory; all commands except START are disabled; no new logging request can be initiated. Currently active trace logging is allowed to continue.

  Note: PMACC=# authorization is required to use this command.

- **START** causes the directory to be allocated and opened as old. If successful, functions are (re)enabled and new logging requests can be initiated. If not, the application remains in a quiesced state.

  Note: PMACC=# authorization is required to use this command.

Line Commands

Line commands apply to a specific entry within the directory.

Note: Certain line commands are restricted based on your authorization. PMACC=# is required for the following line commands if your user ID does not match the user ID of the trace:

- Delete
- Free
- Reset
- Archive

- **S (Select)** loads the selected log data set and displays the LTRAC trace listing. From the LTRAC display, you can access all other trace displays.
- **W (Show)** displays the selected log data set information. The directory entry is updated if necessary.
- **P (Print)** generates the print JCL you can submit to print trace reports from the log data set.

The print job accepts many options to tailor the output to your needs. Only one report can be specified. The following panel is displayed to allow specification of these options.

Note: This command is available only with a terminal session under ISPF. For instructions on how to create a batch job to produce multiple reports, see "Printing Trace Log Data Sets" on page 353.

```
BMC SOFTWARE  ------ BATCH TRACE PRINT -----------------  PERFORMANCE MGMT
COMMAND ===>                                                   TIME --- 15:00

Update job ==> N (Y/N - update job statement)               (END to edit JCL)
Title line 1 ==>
Title line 2 ==>

Data Selection:
 From date ==>           (DDMMMYYYY)   Time  ==>        (HHMM)
 To   date ==>                         Time  ==>

   TRAN ID  ==>
   PROGRAM  ==>
   USER     ==>
   TERMINAL ==>

REPORT SELECTION:
   LTRAC ==> NO                          (YES/NO)
   STRAC ==> NO                          (YES/NO)
   DTRAC ==> NO                          (YES/NO)
```

Figure 216. Batch Trace Print Panel

The following optional panel to provide/update the job statement is shown if the Update job field is set to Y:

```
BMC SOFTWARE  -- BATCH TRACE PRINT JOB STATEMENT -------  PERFORMANCE MGMT
COMMAND ===>                                                   TIME --- 15:03


     JOB STATEMENT:

===> //          JOB
===> //*
===> //*
===> //*

    SYSOUT CLASS ===> *

    STEPLIB DSN PREFIX ===>
```

Figure 217. Batch Trace Print Job Statement

The date and time selection fields are primed with the start and end date-time of the trace. All other fields are primed with the default value when first used. These fields are saved in your profile for later redisplay.

When you press Enter, the data is validated and redisplayed.

The selections made are saved in your profile and used to initialize the fields the next time this panel is requested.

When you exit from this panel, the options specified are inserted into a pattern job stream using the ISPF file tailoring facility. The skeleton JCL can be found in member CMRJPTRA in the BBPROF data set. This member can be tailored to an individual user (UBBPROF data set) or site (SBBPROF data set). The result of this customization is shown in edit mode, allowing you to make any further changes needed.

You can then save this JCL, submit it to the local reader, or cancel the edit session.

Note: To execute the job, you must type **SUBmit** while in edit mode. This is not done automatically for you.

- **D (Delete)** deletes the entry from the trace directory. If the entry is for a data set that is not cataloged, no confirmation is required. If the data set is cataloged, a confirmation screen similar to the sample in Figure 218 is displayed:

```
BMC SOFTWARE  ---- TRACE DIRECTORY PURGE CONFIRMATION ----- PERFORMANCE MGMT
COMMAND ===>                                                 TGT ===> CICSPROD
                                                             TIME --  09:36:34

 LOG DATA SET NAME:   CIR4.LL1X.TEST1.V02
 TARGET:              CICSPROD
 USERID:              CIR4
 TRACEID:             BIGELAP
 VOLUME:              ARCHIV
 START DATE-TIME:     1997/09/08 22:00
 STATUS:              INV

 Do you wish to also delete the log data set? ===> Y  (Y/N)


 Press ENTER to confirm; END to cancel
```

Figure 218. Trace Directory Purge Confirmation Panel

- **E (Reset)** flags the log data set for reuse.
- **V (Verify)** matches the directory against the log data set and updates the directory with the log data set fields. If the data set is not cataloged, the status is changed to NOCAT. If there is any error reading the header information, the status is changed to INV (invalid).
- **N (New)** acts like NEW primary command, except the data entry screen is primed with the selected log DSN.
- **A (Archive)** starts the archive started task (STC) specified in the trace request (TRARCSTC=) for the specified log data set. If TRARCSTC has not been specified, the request is ignored.
- **F (Free)** closes and deallocates a log data set that is not in WRITE status. This can be used to deallocate a log data set when another user is viewing it.

Batch Maintenance Jobs

The trace logging facility includes several sample jobs provided in BBSAMP. The sample jobs to manage the trace directory are described in the *MAINVIEW for CICS Customization Guide*. The jobs to manage individual TLDSs are defined here.

Trace Log Data Set Jobs

Use the following members to:

- Define a trace log data set
- Archive a trace log data set
- Restore an archived trace log data set
- Print trace log data sets

Defining a Trace Log Data Set: Use BBSAMP member JXT011 to define a trace log data set as an LDS using IDCAMS. This preallocates a TLDS that can then be referenced when starting the trace. You will need to use the job if you do not have authority for dynamic TLDS allocation by the BBI-SS PAS. (See the Disposition field description on page 311.)

Archiving a Trace Log Data Set: Use BBSAMP member CMRBARC to set up a started task for automatic archiving of a TLDS. It is executed when a data set is full, when logging is switched to another data set, or when the trace completes. This procedure has two steps:

1. Unload the trace log data set to a GDG data set.
2. Type PGM=JXTRES to mark the trace log data set as RESET in header.

You can add a step to print the trace if desired.

You also can use this member as a pattern to create a job to archive or reset a log data set. It can be invoked from the History Traces panel if previously defined for a trace. Otherwise, it must be submitted manually.

Restoring an Archived Trace Log Data Set: Use BBSAMP member CMRBRLOD to restore an archived trace log data set. This job has two steps:

1. Define a VSAM linear data set.
2. Load the archived data to the defined linear data set.

You can add the linear data set to the online trace directory to view the contents online. Use the NEW command on the History Traces application (see “Using the History Traces Application” on page 320).

Printing Trace Log Data Sets: Use BBSAMP member CMRTBTRA to request the batch printing of trace log data sets. The JCL executes a batch utility job called CMTBPRNT, which enables you to process multiple data sets and produce multiple reports in one pass of the data. For a complete description of this job and the options it supports, see “Printing Trace Log Data Sets” on page 353.

Application Trace Displays

All trace displays described in this section are available for both current traces where the data is still in online buffers and history traces that have been saved in the trace log data sets. The first display shown, LTRAC, provides access to all other trace displays through EXPAND or line selection.

A current application trace can be viewed by

1. Selecting Option S.3, **TRACES**.
2. Using the S line command to select the LTRAC display of trace entries in the online buffers for one trace. If the trace is still active, only completed transactions are shown.

A historical application trace can be viewed by

1. Selecting Option S.4, **HISTORY TRACES**.
2. Using the S line command to select the LTRAC display of trace entries in a trace log data set.

Trace Display Summary

The trace displays comprise the following:

- LTRAC provides a scrollable list of trace entries. Each entry corresponds to a completed task.
- STRAC provides summary information for one transaction.
- DTRAC provides a scrollable list of trace events (detail trace only) that can be viewed at two levels.

  LEVEL=1
  : All program LINK, XCTL, and RETURN calls are identified from start to end task.

  LEVEL=2
  : All events in a task's lifetime are identified (default).

  Note: A parameter of PGM=xxx limits the display to events from one program.

  Each event line contains elapsed and CPU times plus additional information to aid in problem determination.

Navigating between Trace Displays

You can use the following techniques to move from one display to another:

- EXPAND

  This feature provides access to the next level of detail. Any display with an EXPAND selection bar can be expanded. For trace displays, you can use it to move from:

  – LTRAC to STRAC (Summary Trace Entry) for a single entry by cursor selection on an LTRAC entry to see the summary data for one transaction.

  – STRAC to DTRAC by cursor selection of the DETAIL EXPAND bar button to see the detail chronological events.

- LEVEL parameter

  There are two DTRAC display levels available (LEVEL = 1|2) for an active detail trace request. Level 1 shows program entry and exit calls; level 2 shows all events in a program. Overtype the value in the LEVEL=n parameter field to change levels.

- PF7/8

  Use the SCROLL keys (PF7 and PF8) to scroll up and down in any of the following scrollable displays:

  LTRAC List of trace entries
  DTRAC List of events

- PF10/11

  Use the LEFT and RIGHT keys (PF10 and PF11) to move to previous or next entries of a like kind. This includes:

  STRAC One trace entry (transaction) to the next
  DTRAC One trace entry (transaction) to the next

LTRAC - CICS Trace Entries

The CICS Trace Entries panel is a scrollable list of trace entries currently in the trace buffer.

```
BMC SOFTWARE----------   CICS TRACE ENTRIES    -----------PERFORMANCE MGMT
SERV ==> LTRAC           INPUT    06:44:45  INTVL=> 3  LOG=> N  TGT==> CICSPROD
PARM ==> DETL01                                       ROW 1 OF 19 SCROLL=> CSR
EXPAND: MON(WKLD),HISTORY,                        ENTRIES IN BUFFER 1 - 19
        LINESEL(STRAC)
  08FEB97                   LOGGIT TRACE
 END TIME   TRAN ID  PROGRAM  USERID   RESPONSE   CPU    WAITS   #STMT  NETNAME
----------- -------- -------- -------- -------- -------- ------- ----- --------
22:44:11.21 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:15.00 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:16.80 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:18.79 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:22.30 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:24.10 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:26.11 T070     CMRP070  USR1        0.008    0.004   0.000     8   N01A03
22:44:27.90 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:29.54 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:30.90 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:44:59.74 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:45:01.83 T070     CMRP070  USR1        0.006    0.004   0.000     8   N01A03
22:45:03.80 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:45:05.64 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:45:07.40 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:45:09.20 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:45:10.92 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:45:12.84 T070     CMRP070  USR1        0.005    0.004   0.000     8   N01A03
22:45:14.40 T070     CMRP070  USR1        0.006    0.004   0.000     8   N01A03
**************************** END OF TRACE ENTRIES ****************************
```

Figure 219. CICS Trace Entries Panel

Select Code:

LTRAC

Parameter:

trace id

Is a unique identifier for the trace. A blank can be an identifier.

Description:

This service provides a scrollable list of all the active entries for the selected trace. Each entry corresponds to a completed task.

Note: If the target for a historical trace is not equal to the current TGT field, it is displayed in a HIST TGT field.

Scrolling:

Is available. Active entries are copied to a separate storage area in the BBI-SS PAS extended private area when this service is first invoked. Thus, you can scroll the data and it does not change.

This scrollable buffer is refreshed whenever Enter is pressed in the LTRAC service and no line is selected by cursor placement.

Service Message(s):

A message in the parameter field of the service shows the sequence number of the first trace entry displayed and the total number of entries that can be displayed in a scrollable

list. A message just below it shows the sequence number of the first and last trace entries currently available in the buffer. When displaying a history trace, this is the number of trace entries in that data set.

Note: These sequence numbers are assigned internally, in sequence, to each trace entry from the start of tracing. If the entries have wrapped in the buffer (WRAP=YES) and have overlaid earlier entries, the first sequence number in the buffer is no longer 1.

EXPAND:

The LTRAC display can be expanded to the following displays:

HISTORY

Shows the data from the current trace log data set for this trace (if you are viewing a current trace with logging, this provides access to data no longer in the online buffer). It is shown only when logging is active.

CURRENT

Shows the active trace data still in the buffers (if you are viewing a trace log data set for a still-active trace or a complete trace that has not yet been purged).

STRAC

Shows a detailed display of information about a specific entry (STRAC) can be selected from this list by positioning the cursor anywhere in the line for that entry and pressing Enter.

Display Fields:

This display shows trace entries currently in the trace buffer.

END TIME

Is the time the transaction ended. The date displayed above END TIME is the date of the first data line shown.

Note: If there is only one day's data in the trace buffer, the format of the timestamp is *hh:mm:ss.th*. If there is more than one day's data, the format is *dd-hh:mm:ss* where *dd* is the relative day number from the date of the first task in the trace buffer.

TRAN ID

Is the CICS transaction ID.

The ID is displayed as a 4-character field except in these cases:

- The transaction contains unprintable hexadecimal characters. In this case, the transaction ID is printed as an 8-byte hexadecimal value.
- The transaction was started using a PF or PA key. In this case, the transaction ID is printed in the form #PFxx or #PAxx.

Transaction IDs CSMI, CSM1, CSM2, CSM4, and CSM5 are CICS-supplied mirror transactions for MRO function shipping requests.

PROGRAM

Is the program associated with the transaction.

For CICS programs, this is the first program executed, the one defined in the Processing Control Table (PCT). For programs that use one of the 4GLs supported by MAINVIEW for CICS, this field can be the name of the user program, panel, or process.

USERID

Is the user identification obtained at the time the user signed onto CICS. This value represents the user in external security systems, such as RACF.

This field is helpful in identifying transactions executed by a particular user. When this field is blank, it indicates the transaction ran without a signed-on user.

The information in this field is obtained at the time the task is attached. When the user identification changes during a transaction, the original value from this field does not change.

For background transactions (non-terminal attached) initiated by terminal associated tasks with a WRITEQ TD or START command, this field displays the user ID of the originating task.

RESPONSE

Is the transaction response time. It adjusts to either seconds (s), milliseconds (ms), or microseconds (us) depending on the value. If the time exceeds 60 seconds, it is shown in the format hh:mm:ss.

CPU

Is the transaction CPU time. It adjusts to either seconds (s), milliseconds (ms), or microseconds (us) depending on the value. CPU time includes all TCB and SRB time in all address spaces for processing the transaction, as seen by CICS.

FC I/O

Is the file control I/O time. It adjusts to either seconds (s), milliseconds (ms), or microseconds (us) depending on the value.

STMTS

Is the number of CICS and database statements issued by the transaction.

STRAC - Summary Trace Entry

The Summary Trace Entry panel displays summary data for a specific transaction.

```
BMC SOFTWARE----------  SUMMARY TRACE ENTRY    -----------PERFORMANCE MGMT
SERV ==> STRAC           INPUT    06:45:02  INTVL=> 3  LOG=> N  TGT==> CICSPROD
PARM ==> DETL01,SEQ=1                                ROW 1 OF 18 SCROLL=> CSR
EXPAND: MON(WKLD),DETAIL,HISTORY

TRAN ID        T070      START TIME  22:44:11.20  -- RESPONSE TIME ANALYSIS ---
PROGRAM ID     CMRP070   STOP TIME   22:44:11.21  DISPATCHED          1   0.004
TASK NUMBER         130  RESPONSE          0.005  DISPATCH QUEUE      1   0.001
TERM ID        CON2      CPU TIME          0.004  FC I/O WAIT         0   0.000
USER ID        USR1      FC CALLS              4  FC EXCEPTION        0   0.000
NETWORK ID               DL/I CALLS            0  DL/I IO WAIT        0   0.000
                         OTHER DB TYPE            OTHER DB REQ        0   0.000
USER STORAGE     31,440  EXCPN TYPE               SUSPEND             0   0.000
PGRM STORAGE      2,328                           TERMINAL CNTL       0   0.000
                         BMS MAPSET               INTERREGION         0   0.000
DL/I PSBNAME             MESSAGES IN           1  TEMP STORAGE        0   0.000
DB2 PLAN ID              MESSAGES OUT          0  TS EXCEPTION        0   0.000
DB2 CORR ID              THINK TIME        0.000  JOURNAL CNTL        0   0.000
DB2 AUTH ID                                       TRANSIENT DATA      0   0.000
                                                  PROGRAM LOADER      0   0.000
ORIGIN ID      USBOOL01.CICS331B                  USER ECB WAITS      0   0.000
UNIT OF WORK   4BC119E186B90002                   OTHER WAIT              0.000
********************************* END OF DATA *********************************
```

Figure 220. Summary Trace Entry Panel

Select Code:

STRAC

Parameters:

trace id

Is a unique identifier for the trace.

A blank can be an identifier. Therefore, this parameter is positional and a comma delimits the next parameter. For example, if there is no identifier, a comma must precede any other parameter. However, if there is an ID, it must be in the first position.

,SEQ=

Is a unique internal sequence number assigned to each trace entry. The number is assigned sequentially throughout the trace, across multiple log data sets. If this keyword is not specified, the first entry in the trace buffer is displayed. The value after the equals sign can be overtyped to jump directly to any valid trace entry.

Description:

This service displays statistics on the activity generated by one transaction. It is invoked by cursor selection from the LTRAC scrollable list display.

Note: A record is written for each CICS transaction and is available to the trace facility when the transaction terminates.

Scrolling:

Is available. By using the LEFT (PF10/22) and RIGHT (PF11/23) keys, you can scroll backwards or forwards one trace buffer entry (transaction) at a time. The current entry number is displayed in the SEQ= field.

EXPAND:

The STRAC display can be expanded to the following displays:

DETAIL

Is the Detail Trace Entry display.

HISTORY

Shows a historical trace data set for this trace (if you are viewing a current trace with logging, this provides access to data no longer in the online buffer).

CURRENT

Shows the active trace data still in the buffers (if you are viewing a trace log data set for a still-active trace or a complete trace that has not yet been purged).

Display Fields:

This display shows summary data for a specific transaction.

TRAN ID

Is the CICS transaction ID.

The ID is displayed as a 4-character field except in these cases:

- The transaction contains unprintable hexadecimal characters. In this case, the transaction ID is printed as an 8-byte hexadecimal value.
- The transaction was started using a PF or PA key. In this case, the transaction ID is printed in the form #PFxx or #PAxx.

Transaction IDs CSMI, CSM1, CSM2, CSM4, and CSM5 are CICS-supplied mirror transactions for MRO function shipping requests.

PROGRAM
Is the program associated with the transaction.

For CICS programs, this is the first program executed; the one defined in the Processing Control Table (PCT). For programs that use one of the 4GL Languages supported by MAINVIEW for CICS, this field can be the name of the user program, panel, or process.

TASK NUMBER
Is the sequential number assigned by CICS to the task at task attach time.

The maximum task number assigned by CICS is 99999, after which the next task is assigned a task number of 1.

For conversational transactions, the task number is the same for all iterations of the transaction.

For MRO mirror transactions, the task number is the same when the mirror is reused before terminating.

TERM ID
Is the 4-character ID assigned to the terminal associated with this transaction.

If this field is blank, this transaction ran without an associated terminal.

USERID
Is the user identification obtained at the time the user signed onto CICS. This value represents the user in external security systems, such as RACF.

This field is helpful in identifying transactions executed by a particular user. When this field is blank, it indicates the transaction ran without a signed-on user.

The information in this field is obtained at the time the task is attached. When the user identification changes during a transaction, the original value from this field does not change.

For background transactions (non-terminal attached) initiated by terminal associated tasks with a WRITEQ TD or START command, this field displays the user ID of the originating task.

NETWORK ID
Identifies the symbolic node name of the terminal when the terminal is connected to CICS through VTAM. It is blank otherwise.

This field is particularly useful when using auto-installed terminals. This ID allows tracking the activity of a particular terminal although the auto-install process may assign different CICS terminal IDs each time the terminal connects.

In an MRO environment, the network name for the terminal in the terminal-owning region is not available in the application-owning region and is not present in these records.

USER STORAGE
Represents the largest amount of user storage that was ever in use by this transaction. It does not include program storage. The value shown is in bytes.

This field is calculated by adding the size of the storage obtained for a task, subtracting the size of the storage released by a task, and saving the highest value during the transaction execution.

PGM STORAGE

Represents the greatest amount of program storage in use by this task at any time.

When a program links or loads another program, the in-use program storage increases. When a program transfers control, the in-use program storage is subtracted and the size of the new program added. The high-water mark is the largest amount of program storage in use at any point during the execution of the transaction.

Remember, several tasks may be using the same program at the same time. Because of this, totaling this value for multiple transactions does not necessarily produce a meaningful value. If a transaction issues loads for the same program multiple times without intervening deletes, the storage for each load is added to the total.

DL/I PSBNAME

Is the name of the DL/I Program Specification Block (PSB) used to control DL/I access by this transaction.

DB2 PLAN ID

Is the name of the first DB2 plan used by this transaction. If the transaction did not use DB2, this field is blank.

DB2 CORR ID

Is the correlation ID associated with the first DB2 plan used by this transaction. If the transaction did not use DB2, this field is blank.

DB2 AUTH ID

Is the authorization ID associated with the first DB2 plan used by this transaction. If the transaction did not use DB2, this field is blank.

ORIGIN ID

Contains the fully qualified node of the origin system of the transaction.

For remote processing, this field identifies the VTAM symbolic node name of the system that originated the transaction and is contained in all transactions for all regions that process components of the transaction.

UNIT OF WORK

Uniquely identifies, along with the ORIGIN ID, each task that executed.

This value is composed of two parts:

- The first 6 bytes (12 hex digits) are taken from the STCK value at task attach time.
- The remaining 2 bytes (4 hex digits) are set initially and incremented whenever a syncpoint request is issued.

When using the SEARCH command, related tasks are determined by comparing only the first 6 bytes, ignoring the syncpoint bytes.

START

Is the time of day the designated transaction started.

The time is displayed as *hh:mm:ss.th* using a 24-hour clock. For a transaction started before the MAINVIEW for CICS Extractor became active, this field contains a zero.

STOP
: Is the time the transaction ended.

  If there is only one day's data in the trace buffer, the format of the timestamp is *hh:mm:ss.th*. If there is more than one day's data, the format is *dd-hh:mm:ss* where *dd* is the relative day number from the date of the first task in the trace buffer.

RESPONSE
: Is the elapsed internal time in seconds to complete the transaction. This value does not include time spent in the network.

  For most transactions, the time shown is from task attach to task detach. In the case of conversational transactions, the time shown represents the time to complete each iteration of the transaction, but does not include the user think time spent when entering data for the transaction.

CPU TIME
: Represents the CICS CPU time consumed by the transaction.

  The value represents TCB seconds of CPU time. It includes the CPU spent within the application programs as well as some CPU spent within CICS management modules such as file control. It does not include CICS overhead such as task control. It also does not include any time spent in other TCBs, such as the VSAM subtask or DB2 subtasks.

  CICS tracking of CPU time is highly accurate. Thus, a given transaction doing the same process results in very similar numbers. If a transaction's CPU time varies greatly from one execution to the next, the application should be reviewed.

DL/I CALLS
: Is the number of logical calls issued by the specific transaction to DL/I.

  This does not represent the number of I/Os that were generated. Those are represented by the DL/I I/O wait count in the RESPONSE TIME column.

OTHER DB TYPE
: Identifies databases accessed by the task (other than DL/I).

  - DB2
  - ADABAS
  - DATACOM
  - IDMS
  - SUPRA

EXCPN TYPE
: Identifies the exception types incurred by the task.

  STG Storage
  FST File String
  FBF File Buffer
  TST Temporary Storage String
  TBF Temporary Storage Buffer

BMS MAPSET
: Is the name of the Basic Mapping Support (BMS) map set used by this transaction. This field is present only if the transaction used BMS and the MAINVIEW for CICS BMS exit is active.

MSGS IN

Indicates the total number of messages from the terminal to CICS. A normal transaction consists of a single message in from the terminal.

This field also contains the number of inputs from LUTYPE6.1 alternate terminal facilities.

MSGS OUT

Indicates the number of messages from CICS to the terminal. A normal transaction consists of a single message output to the terminal. Transactions connected to printers or that send segmented messages to the device may show additional counts.

This field also contains the number of outputs from LUTYPE6.1 alternate terminal facilities.

THINK TIME

Is recorded for conversational tasks only. It represents the elapsed time between the send of the request from CICS to the terminal and the subsequent response from the terminal to CICS.

DISPATCHED

Is the response time attributed to program execution. The count represents the number of times the task was given control. This is equivalent to the number of EXEC CICS calls or macros that returned control to CICS. The time is the wall clock time that elapsed while dispatching. (CPU time is the actual CPU consumed during dispatched periods.)

If a task spends a significant amount of time in CPU processing, it may prevent other tasks from executing. If this is the case, you may want to lower the priority of this transaction to get other work through CICS.

DISPATCH QUEUE

Indicates the amount of time elapsed between the task attach and the initial dispatch. The count is always 1.

If transactions are spending significant time waiting for dispatch, this indicates that other transactions are preventing it from executing. The transactions which were running at the same time should be reviewed for any which have large dispatch times. The presence of this value may also indicate that maximum values for active tasks (AMXT) or for a given class (CMXT) are being reached. If resource constraint prevents the adjustment of the maximum values, it may be necessary to increase the priority of some tasks to allow them to execute.

FC I/O WAIT

Is the response time attributed to File Control I/O activity. The count represents the number of I/Os generated by the task. The time is the I/O time.

Lower the I/O count by putting VSAM data sets into a Local Shared Resource pool or changing CI sizes for data and index Control Intervals (CI). I/O time can be lowered by moving the data sets used by this application to a lower utilized device or channel.

FC EXCEPTION

Is the response time attributed to waiting within file control other than for an I/O. This includes waiting for a VSAM string, waiting for a buffer, or waiting for exclusive control of a record or control interval. The count represents the number of waits that occurred. The time represents the time spent waiting for the resource.

DL/I I/O WAIT

Is the response time attributed to DL/I I/O activity. The count represents the number of DL/I I/Os generated by the task. The time is the I/O time.

Reduce the I/O count and time by tuning DL/I databases (CI size) or by increasing the number of buffers available. I/O service time can be lowered by moving the data sets used by this application to a lower utilized device or channel. For CICS/MVS 2.1.2, HIPERSPACE for DL/I buffers should be considered when using IMS 2.2.

OTHER DB RQSTS

Is the response time attributed to waits for database calls (other than DL/I). The number of waits and the resulting time spent waiting for the calls to complete are shown.

If this elapsed time is a large percentage of the transaction response time, you will want to evaluate the calls being made and the environment within the database processor. This may require the use of a monitor specifically for the database being used. MAINVIEW for CICS cannot monitor the internal working of the database but rather monitors the effect the database has on the CICS system processing the transaction.

SUSPEND

Is the response time attributed to the transaction being placed in the suspend state. The count represents the number of times the task was suspended. The time represents time spent by the task in this state.

Suspend time is caused by requesting a resource that is not available (versus waiting for an event to occur). Common causes of suspend include waiting for storage, enqueue requests within the application, lock out when updating the same record, and interval control delays. For CICS/ESA 3.3 and later, suspend time also includes file and temporary storage string and buffer waits as well as program load waits. The actual cause of the suspend may be seen in the TASK view.

In mirror transactions for MRO function shipping, the suspend time may also represent time the mirror spends waiting to be reused before terminating. This can be a maximum of two seconds. If no other suspends occur for this task, the suspend count is one.

TERMINAL CNTL

Is the response time attributed to terminal activity. The count represents the number of terminal control requests made that required the application to wait. The time represents the time spent on these requests.

For BTAM, this represents the time within CICS terminal control for send and receive processing to the device.

For most VTAM transactions, the time shown should be small as CICS simply transfers the request to VTAM. However, applications which require definite response from terminals show the time required to obtain the definite response in this field.

INTERREGION

Is the response time attributed to waiting for completion of an IRC request. Function shipping to MRO regions is recorded in this component for all remote requests (such as a remote file).

To locate corresponding work on the associated links, the SEARCH command can be used. SEARCH interrogates other CICS regions managed by the same BBI-SS PAS and reports on any tasks with the same origin and unit of work ID.

TEMP STORAGE

Is the response time attributed to temporary storage activity. The count represents the number of I/O waits in temporary storage. The time represents the time spent within temporary storage waiting for I/O to complete. This field does not provide a count of temporary storage requests. Counts can be seen in the History Call Type display.

Temporary storage optimizes I/O as much as possible. It does not write a buffer to the temporary storage data set unless it needs to obtain another buffer and all buffers are in use or unless a syncpoint is issued for a transaction writing to a recoverable temporary storage ID. Thus, not all transactions which use temporary storage incur I/O waits.

If the time is excessive, it may represent I/O problems in temporary storage. You may be able to get better utilization of the temporary storage buffers and do less I/O by increasing the control interval size. The temporary storage data set also can be moved to a lower utilized device.

TS EXCEPTION

Is the response time attributed to waiting for a string or a buffer within temporary storage control. The count represents the number of string waits that occurred. The time represents the time spent waiting for processing due to lack of an available string or buffer. (See the EXCPN TYPE field for the exception condition.)

Some string waits may occur at busy periods of the day in temporary storage. It should not be a common occurrence. The number of strings is defined in the System Initialization Table (SIT).

The TEMPSTRG service provides usable information for understanding how Temporary Storage is performing.

JOURNAL CNTL

Is the response time attributed to journal activity. The count represents the number of journal I/O waits. The time represents the time spent within Journal Control waiting for I/O to complete. Very few journal waits should occur for normal CICS activity.

If the time is excessive, it may represent I/O problems in Journal Control. The JOURNAL service provides usable information that can help you tune your CICS journal activity.

TRANSIENT DATA

Is the response time attributed to transient data activity. The count represents the number of I/O waits for transient data calls. The time represents the time spent in Transient Data waiting for I/O.

Action required depends on whether the application is using intra- or extrapartition transient data. Intrapartition data is maintained on a BDAM or VSAM data set, and a large amount of time in transient data may represent an I/O problem. Extrapartition data represents I/O time to sequential data sets. Since this is synchronous, it impacts the entire CICS region and should be avoided.

PROGRAM LOADER

Is the response time attributed to program control spent loading application programs. The count represents the number of program load I/Os versus the number of programs loaded. The time represents the time spent loading programs.

Try to avoid program loading for response time sensitive applications. This can be done by making highly used programs resident. Modular design of applications can reduce the total program size requirements. Refer to statistics from the MAINVIEW for CICS PPT record to see the number of times individual programs were loaded. Remove USAGE=MAP from BMS map sets if defined in the Processing Program Table (PPT). The RDO Mapset designation is not equivalent to USAGE=MAP and need not be changed.

USER ECB WAIT

Is the response time attributed to waiting for user ECBs to be posted. The count represents the number of times that a wait for a user ECB was issued. The time represents the time spent waiting for ECBs to be posted.

The reason for a user ECB wait should be investigated. Some database systems, for example, use user ECBs to control database calls. Tune your database I/O requests to minimize the amount of time spent between waiting and posting.

OTHER WAIT

Represents the time spent by the transaction that was not recorded by MAINVIEW for CICS. This field is a computed value to show what amount of time could not be accounted for. It should normally be small but may be significant if the transaction incurs CICS waits that are not reported by MAINVIEW for CICS.

MAINVIEW for CICS collects many aspects of CICS response time but not all. The total response time represents the actual response time and the displayed areas report a majority of the components of that response time.

DTRAC - Detail Trace Entry

The DTRAC Trace Entry Display shows all the traced events for a specific transaction entry in the trace buffer. Two levels of display (shown in Figure 221 and Figure 222) can be specified. Levels 1 or 2 are typed in the LEVEL= field of the DTRAC display. Each succeeding level shows more detail trace events.

```
BMC SOFTWARE----------   DETAIL TRACE ENTRY    -----------PERFORMANCE MGMT
SERV ==> DTRAC            INPUT   11:59:40  INTVL=> 3  LOG=> N  TGT==> CICSPROD
PARM ==> TRACE3,SEQ=1,LEVEL=1                          ROW 1 OF 13 SCROLL=> CSR
EXPAND: HISTORY
START: 22:44:11 TRAN: T070 PROG: PGRM01   TERM: CON2 USER: USR1
================================================================================
    EVENT                   AT   ELAPSED   CPU   STG  DETAIL
------------------------ ------ -------  ----- ----- --------------------------
START PROGRAM PGRM01      0.000     0us           10k
LINK                1224  1.414   620us     50ms      PGRM02
 LINK                120  2.750   171us    100ms  24k PGRM03
  LINK              1050  3.001     5us     40ms  45k PGRM04
   LINK             2000  3.978   250us     79ms  65k PGRM0P5
   LINK             3000  4.005     5us     45ms  76k PGRM0002
   XCTL             1248  4.556   417us     23ms  80k PGRM003B
   RETN              410  4.996     5us     10ms      PGRM05
   RETN             2050  5.404   292us     50ms      PGRM04
  RETN              1096  5.556     5us     60ms      PGRM03
 RETURN              510  5.600   356us     80ms      PGRM02
RETURN               178  7.001     5us    100ms      PGRM01
END PROGRAM PGRM01        7.455   305us      5us
************************ END OF DETAIL TRACE ENTRIES ************************
```

Figure 221. Detail Trace Display for a Transaction (Level 1)

```
BMC SOFTWARE----------   DETAIL TRACE ENTRY    -----------PERFORMANCE MGMT
SERV ==> DTRAC           INPUT    06:45:10  INTVL=> 3  LOG=> N  TGT==> CICSPROD
PARM ==> DETL01,SEQ=1,LEVEL=2                         ROW 1 OF 17 SCROLL=> CSR
EXPAND: HISTORY
START: 22:46:13 TRAN: T070 PROG: PGRM01   TERM: CON2 USER: USR1
================================================================================
    EVENT                   AT  ELAPSED    CPU   STG DETAIL
------------------------ ------ -------  ------ ---- --------------------------
START-PROGRAM PGRM01      0.001     0us     0us   4K
GETMAIN             56BC  0.002   620us     0us  17K LEN=16352
RESP                      0.002   171us     0us  33K OK
HANDLE-CONDITION    032A  0.002     5us     0us  33K ERROR
RESP                      0.002   250us     0us  33K OK
READ                03D6  0.002     5us     0us  33K FILEA,LEN=80
RESP                      0.003   417us     0us  33K OK
READ                0446  0.003     5us     0us  33K FILEA,LEN=80
RESP                      0.003   292us     0us  33K OK
READ                04B6  0.003     5us     0us  33K FILEA,LEN=80
RESP                      0.003   356us     0us  33K OK
READ                0526  0.003     5us     0us  33K FILEA,LEN=80
RESP                      0.004   305us     0us  33K OK
RETURN              0556  0.004     5us     0us  33K
FREEMAIN                  0.004     4us     0us  33K
RESP                      0.005   968us     0us   4K OK
```

Figure 222. Partial Detail Trace Display for a Transaction (Level 2)

Note: The ELAPSED and CPU time adjusts to *us* (microseconds), *ms* (milliseconds), or *hh:mm:ss* (hours, minutes, seconds) depending upon the measured time.

Select Code:

DTRAC

Parameter:

trace id

Is the unique identifier for the trace. It must match the ID of the request that started the trace. This parameter is positional and a comma delimits the next parameter. If the ID is blank, a comma must precede any other parameter.

,LEVEL=1|2

1 Displays all program LINK, XCTL, and RETURN calls from start to end task.

2 Displays all events in a task's lifetime. This display is the default and is the initial display shown when DTRAC is invoked.

,SEQ=

Is a unique internal sequence number assigned to each trace entry. The number is assigned sequentially and wraps at 32768. If DTRAC is selected from the STRAC display by cursor positioning within the STRAC display, the transaction displayed is identified in the SEQ field. Any valid trace buffer entry can be displayed by typing its trace sequence number in the SEQ field.

Description:

The DTRAC display shows all the traced events for one transaction at two succeeding levels by using the LEVEL= parameter field. The entries shown at each level depend upon the type of detail trace started (see "Event Data" on page 343).

Note: If the target for a historical trace is not equal to the current TGT field, it is displayed in the HIST TGT field.

Scrolling:

Is available. Each display can be scrolled up (PF7/19) or down (PF8/20). Data for only the current entry in the trace buffer is scrolled. A new transaction in the trace buffer can be displayed by using the left and right PF scroll keys. PF10/22 (left) moves backwards through the transaction entries in the buffer. PF11/23 (right) moves forwards through the transaction entries. The transaction displayed is identified in the SEQ field of the display.

EXPAND:

The DTRAC display can be expanded to the following displays:

HISTORY

Shows the historical trace data set for this trace. If you are viewing a current trace with logging, this provides access to data no longer in the online buffer.

CURRENT

Shows the active trace data still in the buffers. If you are viewing a trace log data set for a still-active trace or a complete trace that has not yet been purged.

Display Fields

Each display level shows the detail trace data in the fields shown in Figure 223.

```
BMC SOFTWARE----------   DETAIL TRACE ENTRY    -----------PERFORMANCE MGMT
SERV ==> DTRAC            INPUT   11:59:40  INTVL=> 3  LOG=> N  TGT==> CICSPROD
PARM ==> TRACE3,SEQ=1,LEVEL=1                         ROW 1 OF 13 SCROLL=> CSR
EXPAND:  HISTORY
START: 12:31:17 TRAN: TRN3     PROG: PRGM01   USER: USER02
================================================================================
    EVENT                  AT   ELAPSED   CPU   STG  DETAIL
------------------------ ------ -------  ----- ----- --------------------------
START PROGRAM PGRM01      0.000                  10k
```

Figure 223. DTRAC Display Fields

DTRAC displays each traced event in a row. Subordinate events are indented by event name to a maximum of four. The data collected is shown by:

Field Name	Description
EVENT	Type of event (see “Event Data” on page 343).
AT	Time in seconds relative to the task attach time.
ELAPSED	Elapsed time for the event if applicable.
CPU	CPU time for the event if applicable.
STG	Storage utilization of the task.
DETAIL	Detail data specific to the type of event.

Note: The ELAPSED and CPU time adjusts to *us* (microseconds), *ms* (milliseconds), or *hh:mm:ss* (hours, minutes, seconds) depending upon the amount of time measured.

Group EIP

When a user issues a trace request (GROUPEIP=Y|N), multiple EIP calls can be merged into one displayed line with no intervening traced events.

Field Name	Description
Event	Grouped EIP calls with a numeric indicator (n) as to the number of grouped events.
AT	Time in seconds relative to the first event.
ELAPSED	Total of all elapsed events.
CPU	Total of all CPU time for individual events.
STG	Total storage utilization for individual events.
DETAIL	If any value changes and if that value stops a grouping, that value is shown.

Event Data

The following tables summarize the events collected for a detail trace. The responses for these events can be

- OK
- Abnormal condition
- Waits (I/O, IRC, EXC)

File Control Trace Data: To collect these events, specify Y in the File / Database field on the Detail Trace Options panel when starting a trace.

Table 19. Detail Trace Data for File Control Requests

Event	Detail data
READ	DATASET ID UPDATE SYSID KEYLENGTH
WRITE	DATASET ID MASSINSERT SYSID KEYLENGTH
REWRITE	DATASET ID LENGTH SYSID
DELETE	DATASET ID SYSID
UNLOCK	DATASET ID SYSID
STARTBR RESETBR	DATASET ID SYSID GTEQ KEYLENGTH
READNEXT READPREV	DATASET ID SYSID
ENDBR	DATASET ID SYSID

Possible abnormal conditions for File Control requests are

- DISABLED
- DUPKEY
- FILENOTFND
- ILLOGIC
- INVREQ
- IOERR
- LENGERR
- NOTAUTH
- NOTFND
- NOTOPEN
- SYSIDERR

Database Trace Data: To collect these events, specify Y in the File / Database field on the Detail Trace Options panel when starting a trace.

Table 20. Detail Trace Data for Database Requests

Event	Detail data
DB2	SQL REQUEST PLAN NAME
SUPRA	DATABASE ID
ADABAS	DATABASE ID
DATACOM	DATABASE ID

Storage Control Trace Data: To collect these events, specify Y in the Storage Control field on the Detail Trace Options panel when starting a trace.

Table 21. Detail Trace Data for Storage Control Requests

Event	Detail data
GETMAIN	LENGTH SHARED ANY BELOW
FREEMAIN	

Program Control Trace Data: To collect these events, specify Y in the Program Control field on the Detail Trace Options panel when starting a trace.

Table 22. Detail Trace Data for Program Control Requests

Event	Detail data
LINK	PROGRAM ID COMMAREA LENGTH
XCTL	PROGRAM ID COMMAREA LENGTH
LOAD	PROGRAM ID HOLD
RETURN	TRANSID COMMAREA LENGTH
RELEASE	PROGRAM ID
ABEND	ABCODE NODUMP
HANDLE-ABEND	LABEL PROGRAM

Possible abnormal conditions for Program Control requests are

- INVREQ
- PGMIDERR
- LENGERR
- NOTAUTH

Interval Control Trace Data: To collect these events, specify Y in the Interval Control field on the Detail Trace Options panel when starting a trace.

Table 23. Detail Trace Data for Interval Control Requests

Event	Detail data
ASKTIME	
DELAY POST	INTERVAL TIME REQID
START	TRANSID TERMID SYSID
RETRIEVE	WAIT
CANCEL	REQID TRANSID SYSID

Possible abnormal conditions for Interval Control requests are

- INVREQ
- NOTFND
- ENDDATA
- ENVDEFERR
- ISCINVREQ
- LENGERR
- NOTAUTH
- TRANSIDERR
- TERMIDERR

Journal Control Trace Data: To collect these events, specify Y in the Journal / Sync field on the Detail Trace Options panel when starting a trace.

Table 24. Detail Trace Data for Journal Control Requests

Event	Detail data
JOURNAL	JFILEID
WAIT JOURNAL	JFILEID

Syncpoint Trace Data: To collect these events, specify Y in the Journal / Sync field on the Detail Trace Options panel when starting a trace.

Table 25. Detail Trace Data for Syncpoint Requests

Event	Detail data
SYNC POINT SYNCPOINT ROLLBACK	

Temporary Storage Trace Data: To collect these events, specify Y in the Temp Storage field on the Detail Trace Options panel when starting a trace.

Table 26. Detail Trace Data for Temporary Storage Requests

Event	Detail data
READQ TS	QUEUE ID SYSID
WRITEQ TS	QUEUE ID AUX|MAIN REWRITE SYSID
DELTEQ TS	QUEUE ID SYSID

Possible abnormal conditions for Temporary Storage requests are

- INVREQ
- IOERR
- ISCINVREQ
- ITEMERR
- LENGERR
- NOTAUTH
- QIDERR
- SYSIDERR

Terminal Control Trace Data: To collect these events, specify Y in the Terminal / APPC field on the Detail Trace Options panel when starting a trace.

Table 27. Detail Trace Data for Terminal Control Requests

Event	Detail data
ALLOCATE	SESSION ID SYSID
BUILD ATTACH	ATTACHID PROCESS / RESOURCE NAME
CONNECT PROCESS	CONVID SESSION ID
CONVERSE EXTRACT ATTACH	CONVID SESSION ID ATTACHID
EXTRACT ATTRIBUTES EXTRACT PROCESS POINT	CONVID SESSION ID
EXTRACT TCT	NETNAME
FREE	CONVID SESSION ID
ISSUE ABEND ISSUE CONFIRMATION ISSUE ERROR ISSUE PREPARE ISSUE SIGNAL	CONVID
ISSUE COPY	TERMID CTLCHAR
ISSUE DISCONNECT	SESSION ID
ISSUE ERASEAUP	WAIT
ISSUE LOAD	PROGRAM NAME
ISSUE PASS	LUNAME
RECEIVE SEND	CONVID SESSION ID

Possible abnormal conditions for Terminal Control requests are

- INVREQ
- SYSBUSY
- SYSIDERR
- CBIDERR
- LENGERR
- NOTALLOC
- TERMERR

- SIGNAL
- EOC
- INBFMH

Mapping Control Trace Data: To collect these events, specify Y in the Terminal / APPC field on the Detail Trace Options panel when starting a trace.

Table 28. Detail Trace Data for Mapping Support Requests

Event	Detail data
RECEIVE MAP SEND MAP	MAPNAME MAPSET NAME
SEND TEXT	ACTPARTN OUTPARTN PAGING
SEND PAGE	RELEASE TRANSID
PURGE MESSAGE	
ROUTE	INTERVAL TIME
SEND PARTNSET	PARTN SET NAME
RECEIVE PARTN	ASIS
SEND CONTROL	

Possible abnormal conditions for Mapping Support requests are

- INVREQ
- TSIOERR
- INVMAPSZ
- INVPARTN
- OVERFLOW
- LENGERR

Task Control Trace Data: To collect these events, specify Y in the Task Control field on the Detail Trace Options panel when starting a trace.

Table 29. Detail Trace Data for Task Control Requests

Event	Detail data
WAIT	
ENQ	RESOURCE
DEQ	
SUSPEND	

Transient Data Trace Data: To collect these events, specify Y in the Transient Data field on the Detail Trace Options panel when starting a trace.

Table 30. Detail Trace Data for Transient Data Requests

Event	Detail data
READQ TD	QUEUE ID SYSID
WRITEQ TD	QUEUE ID SYSID
DELTEQ TD	QUEUE ID SYSID

Possible abnormal conditions for Transient Data requests are

- DISABLED
- INVREQ
- IOERR
- ISCINVREQ
- NOSPACE
- NOTOPEN
- LENGERR
- NOTAUTH
- QIDERR
- SYSIDERR

EXEC Interface Trace Data: To collect these events, specify Y in the Error Handling field on the Detail Trace Options panel when starting a trace.

Table 31. Detail Trace Data for EXEC Interface Requests

Event	Detail data
HANDLE CONDITION IGNORE CONDITION	CONDITION/S (first 3)
HANDLE AID	AID (first 5)
ASSIGN	Encoded data name (first 3)
PUSH HANDLE	
POP HANDLE	

System Programming (SP) Trace Data: This event type is collected automatically.

Table 32. Detail Trace Data for System Programming Requests

Event	Detail data
INQUIRE / SET CONNECTION	CONNECTION ID
INQUIRE / SET DSNAME	DATASET NAME
INQUIRE / SET MODENAME	MODENAME CONNECTION
INQUIRE / SET PARTNER	PARTNER NAME
INQUIRE / SET PROFILE	PROFILE NAME
INQUIRE / SET PROGRAM	PROGRAM NAME
INQUIRE / SET SYSDUMPCODE	SYSTEM DUMP CODE
INQUIRE / SET TDQUEUE	DESTINATION ID
INQUIRE / SET TERMINAL NETNAME	TERMINAL ID NETWORK ID
INQUIRE / SET TRANDUMPCODE	TRANSACTION DUMP CODE
INQUIRE / SET TRANSACTION	TRANSACTION ID
INQUIRE / SET VOLUME	VOLUME ID

Trace Support Trace Data: This event type is collected automatically.

Table 33. Detail Trace Data for CICS Trace Requests

Event	Detail data
ENTER TRACE	TRACEID

Dump Control Trace Data: This event type is collected automatically.

Table 34. Detail Trace Data for Dump Control Requests

Event	Detail data
DUMP	DUMPCODE

Exit Manager Trace Data: This event type is collected automatically.

Table 35. Detail Trace Data for Exit Manager Requests

Event	Detail data
ENABLE PROGRAM DISABLE PROGRAM	PROGRAM ID EXITID TRUE START STOP
EXTRACT EXIT	PROGRAM ID

Printing Trace Log Data Sets

This section describes the offline printing facility for trace data. The trace reports are provided by a batch utility job, CMTBPRNT. The primary input source is data collected by MAINVIEW for CICS online traces and stored on trace log data sets (TLDS). CMTBPRNT can process multiple data sets and produce multiple reports in one pass of the data.

Note: You can generate a job to print a report from one TLDS using the online History Traces application. For more information, refer to "Managing History Traces (Option S.4)" on page 319.

Overview

The trace reports produced by CMTBPRNT contain the same trace data in the same format as the online trace displays described earlier. Data from a number of online displays can be combined into one printed report. For example, a single report can contain both LTRAC and DTRAC data. Alternatively, you can produce separate LTRAC and DTRAC reports from a single pass of the data. You can also use selection options, such as date and time, to filter the trace data included in a report.

Types of Reports

The trace facility provides many reports to assist you in analyzing the collected trace data. The types of reports available depend on whether only performance records (summary), trace events (detail), or both are available. These reports can be created from both summary and detail traces.

LTRAC Performance short trace with one line per completed task.

STRAC Summary data for a specific transaction.

DTRAC Detailed data on all traced events for a specific transaction.

Primary Input - Trace Log Data Sets

The input to CMTBPRNT is the VSAM data sets created by trace requests with logging. All TLDSs are tracked in a trace directory and can be accessed through the History Traces application (Option S.4).

To submit a batch print job for this data, you can

- Specify one or more TLDSs in a series of TRACINxx DD statements. Only TLDS data sets can be specified in this manner.
- Use the TRACEID keyword with the TRACEDIR DD statement, if you do not know the exact names of the trace data sets. The TRACEDIR DD statement identifies the directory data set. The TRACEID keyword identifies the specific trace entries in which you are interested. You can specify only one TRACEID per batch job. The specified TRACEID remains in effect across all report requests.

  It is recommended that you also use the TARGET, DATE, and TIME keywords to further qualify which trace data sets are selected.

- Specify an archived TLDS in an ARCIN DD statement. This allows you to print directly from the archived sequential data set without reloading it to a VSAM linear data set.

Controls for Reporting

You request each set of reports by specifying control statements in the input stream under ddname SYSIN. Alternatively, the control statements can be members of a PDS. You use keywords in the control statements to define the following aspects of your trace reports:

- Input source
- Input selection/exclusion
- Display selection
- Output format

This section describes the structure of the control statements and the values you can use for the keywords in them.

The GLOBAL Statement

You specify keywords that apply to all requested reports on a GLOBAL statement. For example, the following control statement:

```
GLOBAL  TITLE1='DAILY REPORT'
```

causes the title DAILY REPORT to be printed on the first line of each page of each report. You do not need to specify this keyword again for each report.

All keywords can be specified as GLOBAL except REPORTID and DDNAME, which apply to a specific report. Those keywords must be specified on a REPORT statement.

The GLOBAL statement can be repeated anywhere in the input stream to reset any combination of keywords. The value specified for each keyword on a GLOBAL statement remains in effect until overridden by a new value in a subsequent GLOBAL statement. A GLOBAL keyword can also be overridden for a single report request by specifying a different value on the REPORT statement.

The REPORT Statement

You start each report request with a REPORT statement and a series of keywords connected by commas. Do not leave any blank spaces in the series. The first blank encountered terminates processing for that report. All text following the blank is considered to be a comment. If a keyword value, such as a title, has embedded blanks, you must enclose it in quotation marks.

To continue a statement to the next line, end the line with a comma-blank combination. The remainder of the line is considered to be a comment. Processing resumes when the first non-blank character on the next line is encountered. Continuations can occur only where a comma would normally be used. Keywords and values cannot be continued.

To create a comment line, use an asterisk in the first column. A comment line can be embedded within a series of continuations.

Each REPORT statement must include the REPORTID keyword; this is the only required keyword. All other keywords have defaults that are assumed if the keyword is not specified. The keywords and their values are described next.

Request Keywords

This section presents a complete list of the keywords, their possible values, their defaults, and limitations on their use.

The keywords are described as follows:

- Report keywords, in Table 36
- Formatting keywords, in Table 37 on page 356
- Identification keywords, in Table 38 on page 357
- Selection keywords, in Table 39 on page 360

They are grouped according to which aspect of the report they control.

Note: If the same keyword is specified multiple times, the first value is used and a diagnostic message is issued.

Report Keywords: The keywords described in Table 36 specify which reports are to be produced.

Table 36. Report Keywords

Keyword/Operand	Description
LTRAC=[YES|NO]	(Optional) Use the LTRAC keyword to request the LTRAC one-line entry for each transaction. When it is used in conjunction with STRAC or DTRAC, each transaction starts with the LTRAC line, which is followed by any other requested data. The default is **LTRAC=NO**.
STRAC=[YES|NO]	(Optional) Use the STRAC keyword to request the STRAC transaction summary report. **STRAC=YES** specifies that only the first section of the STRAC display be printed. **STRAC=NO** suppresses printing of the STRAC displays. These requests can be combined with any of the DTRAC requests. The default is **STRAC=NO**.
DTRAC=[YES|NO]	(Optional) Use the DTRAC keyword to request that a one-line entry be printed for each detail trace event that meets the LEVEL criteria. To make it easier to associate the detail data with a transaction, it is recommended that you also specify either **LTRAC=YES** or **STRAC=YES**. The default is **DTRAC=NO**.
LEVEL=[1|2]	(Optional) Use the LEVEL keyword to control which detail entries are to be printed in the DTRAC reports. The meaning of the levels is the same as that of the DTRAC online display. The default value is **2**.

Formatting Keywords: The keywords described in Table 37 specify formatting options for the reports you are requesting.

Table 37. Formatting Keywords

Keyword/Operand	Description
NEWPAGE=[TRAN|EVENT| FIRSTEVENT|NO]	(Optional) Use the NEWPAGE keyword to control page breaks in the printed report. **TRAN** Page breaks for each new transaction. **EVENT** Page breaks for each new event or detail trace entry. **FIRSTEVENT** Page breaks for the first event of each transaction. Use FIRSTEVENT to separate DTRAC entries from an STRAC or LTRAC display. **NO** No page breaks that are based on input data. You can combine these entries; for example: NEWPAGE=(TRAN,FIRSTEVENT) The default is **NEWPAGE=NO**.
WIDTH=[N|NARROW|W|WIDE]	(Optional) Use the WIDTH keyword to define titles that are aligned for either 81-character lines (narrow) or 133-character lines (wide). For narrow titles, specify either **N** or **NARROW**; for wide titles, specify either **W** or **WIDE**. The default is **WIDTH=WIDE**. **Note:** You can specify any LRECL and BLKSIZE you desire on the JCL. If you do not specify LRECL, the default is either 81 or 133. If you do not specify BLKSIZE, the default is LRECL. RECFM=FBA is specified internally and cannot be overridden.
LINECNT=[0|8-999|66]	(Optional) Use LINECNT to define the number of lines per page. The minimum number of lines allowed per page is 8, to allow for predefined headings. The maximum number of lines allowed is 999. When **LINECNT=0**, the headings are printed on only the first page; no further page breaks are taken. The default value is **LINECNT=66**.

Table 37. Formatting Keywords (Continued)

Keyword/Operand	Description
HEADING=[YES|NO]	(Optional) Use **HEADING=NO** to suppress all headings. Use **HEADING=NO,LINECNT=0** to suppress all headings, including the first heading. Use **HEADING=NO,LINECNT=*nn*** to specify that no headings are to be printed, but that a new page is to begin every ***nn*** lines. The default is **HEADING=YES**.
MAXPAGES=[0-999999]	(Optional) Use MAXPAGES with a numerical value to prevent unexpectedly high volumes of output. When the specified number of pages per report has been reached, detail report production stops. Any numeric value up to 999,999 can be specified. A value of 0 allows any number of pages to be printed. The default value is **MAXPAGES=0**.

Identification Keywords: The keywords described in Table 38 specify the name of the report, the output data set, the ID (and originator) of the trace for which the report is produced, the name of the target system, and the title for the report.

Table 38. Identification Keywords

Keyword/Operand	Description
REPORTID={*name*}	(Required) This is the only required keyword. Use REPORTID to specify a unique identification for the report. If the DDN keyword is not specified, REPORTID is also used as the ddname of the output data set. The value can be one to eight characters, including any allowed special characters.
DDN|DDNAME=[*ddname*]	(Optional). Use DDN to specify the ddname that receives the report. Any one- to eight-character name that satisfies the rules for ***ddname*** is allowed, other than the reserved names TRACINxx, TRACEDIR, ARCIN, SYSIN, and SYSPRINT. If DDN is not specified, the value specified for the REPORTID keyword is used.

Table 38. Identification Keywords (Continued)

Keyword/Operand	Description
TRACEID=[*id*|BLANK]	(Optional) Use TRACEID to specify the ID of the trace for which you want a report. This value will be compared to entries in the trace directory and used to identify TLDS data sets that may contain the data you want. All TLDS data sets that have names corresponding to the specified TRACEID and that meet the specified TARGET, TIME, and DATE requirements are allocated dynamically and processed. To define a trace ID of blank, specify **TRACEID=BLANK**. **Note:** The DD statement TRACEDIR must be present in order for this keyword to be processed. If the DD statement is not present, this keyword is ignored.
USERID=[*id*]	(Optional) Use USERID to specify the ID of the user who started the trace. All TLDS data sets that meet this requirement, plus any TARGET, TIME, and DATE requirements, are allocated dynamically and processed. **Note:** The DD statement TRACEDIR must be present before this keyword is processed. If the DD statement is not present, this keyword is ignored.
TARGET|TGT=[*tgtname*]	(Optional) Use TARGET to specify the target system for the trace for which you want a report. This value will be compared to entries in the trace directory and used to identify TLDS data sets that may contain the data you want. All TLDS data sets that have names corresponding to the specified TARGET system, that have the specified TRACEID qualifier, and that meet the specified DATE and TIME requirements, are dynamically allocated and processed. If TARGET is not specified, all target systems for the specified trace are selected for processing. **Note:** The DD statement TRACEDIR must be present in order for this keyword to be processed. If the DD statement is not present, this keyword is ignored.

Table 38. Identification Keywords (Continued)

Keyword/Operand	Description
TITLE1=[*c.....c*]	(Optional) Use TITLE1 to specify the title value to be printed in the center of the first line of each page of the report. The value can be up to 60 characters. If you do not specify a value for TITLE, no title is printed on the first line of the report.
TITLE2=[*c.....c*]	(Optional) Use TITLE2 to specify the secondary title that is printed in the center of the second line of each page of the report. The value can be up to 60 characters. If TITLE2 is not specified, the secondary title is the title specified when the trace was created.

Selection Keywords: Use the selection keywords described in Table 39 on page 360 to specify the criteria for including transactions in the report. The selection keywords are ANDed to select entries for print.

Table 39. Selection Keywords

Keyword/Operand	Description
DATE=[*ddmmmyyyy*|*ddmmmyyyy-ddmmmyyyy*]	(Optional) The date value is used to select a date range or starting date from the input. The input can be a single date in ***ddmmmyyyy*** format, which defines a starting day, or a range in the form ***ddmmmyyyy-ddmmmyyyy*** to define starting and ending dates to process. The asterisk is used to specify the current date. To select all entries from yesterday, specify **DATE=*_1** **Note:** The underscore is used instead of a dash, since the dash is already used to define a range of dates. Using *-1 would result in interpreting the date as a range from current date to day 1 (which is invalid as a date). To process only one day, specify **14JUN1997-14JUN1997** The default is to select all records.
TIME=[*hhmm*|*hhmm-hhmm*]	(Optional) Use TIME to specify the starting time or the time range for the input used to create the report. To select records starting at noon, specify **TIME=1200** To select records from first shift operations only, specify **TIME=0800-1559** To select records up to 4:00pm, specify **TIME=-1600** To select records for a 24-hour period on the same day, specify either **TIME=0000-2359** or **TIME=0001-2400** The default is to select all records.

Submitting a Report Request

This section describes the JCL you should use to submit batch report requests and the return codes that can be set by CMTBPRNT.

JCL

Use the JCL shown in Figure 224 to produce any of the reports. This JCL, which is in member CMRTBTRA in BBSAMP, is a single-step procedure.

```
//jobname  JOB (acct),'name'
//CMTBPRNT PROC TLDS=NULLFILE,          INPUT TRACE DATA SET
//          TDIR=NULLFILE,          INPUT TRACE DIRECTORY
//          ARC=NULLFILE,           INPUT ARCHIVED TRACE DATA SET
//          PFX='HILVL.RUN.LIB'       DSN PREFIX OF BBLINK
//PRINT   EXEC PGM=CMTBPRNT,REGION=4M,PARM='GMWK=32K'
//*                                 INCREASE GMWK FOR LARGE TRACES
//STEPLIB   DD DISP=SHR,DSN=&PFX..BBLINK
//SYSPRINT  DD SYSOUT=*                INPUT LIST AND DIAGNOSTICS
//SYSUDUMP  DD SYSOUT=*                ABEND DUMPS
//STD1      DD SYSOUT=*                DEFAULT REPORT OUTPUT
//*
//*   ===>    ONLY ONE OF THE FOLLOWING INPUT DD'S MAY BE SPECIFIED
//*
//TRACIN01  DD DISP=SHR,DSN=&TLDS        TLDS INPUT
//TRACEDIR  DD DISP=SHR,DSN=&TDIR        TLDS INPUT THRU TRACE DIR
//ARCIN     DD DISP=SHR,DSN=&ARC         ARCHIVED TLDS INPUT
//        PEND
//*
//*                  ** SPECIFY INPUT FILE **
//PRINT   EXEC CMTBPRNT,TLDS='tracelog.data.set'
//REPORT1   DD SYSOUT=*                USER-DEFINED OUTPUT DD
//SYSIN     DD *                       FOR IN-STREAM REPORT STMTS
  REPORT  REPORTID=CMRBATCH,DDNAME=REPORT1,
        STRAC=YES,
        LTRAC=YES,
        DTRAC=YES
```

Figure 224. Sample JCL to Print a Trace (CMRTBTRA)

Note: You must supply values for the parameters shown in lowercase in Figure 224. Parameters in uppercase must be specified exactly as shown.

PRINT

Specifies the name of the program as CMTBPRNT and the region size required to run the program.

The GMWK option in the PARM field is used to specify the size of the summary work area needed for processing trace data sets. You can, for example, increase the value of GMWK for data sets that contain a very large number of transactions. The value assigned to GMWK determines the size of the summary work area for all services (LTRAC, DTRAC, STRAC, and so on).

When multiple report requests are executed in a single job step, one summary work area is acquired for each report. When a summary work area size is too large, any region size available can be exceeded very quickly.

Storage acquired with this option is below the 16MB line. The default value of GMWK is 32K, and maximum size is limited to be no greater than the largest private area available in the MVS system.

When you use the GMWK option, the REGION size for the job may need a corresponding adjustment. The syntax rules for GMWK are similar to those for the MVS JCL REGION parameter.

Specify a size greater than 32K. A general guideline for the size of GMWK is

GMWK = 1700 + (72 * number of unique transactions summarized)

STEPLIB DD

Defines the program library containing the CMTBPRNT load module.

SYSPRINT DD

Defines the data set for printing all input statements and program messages.

Note: The SYSPRINT DD statement must exist. If it is not found, a WTO is issued and the run is terminated.

SYSUDUMP DD

Defines the dump data set for problem determination.

STD1

Defines the ddname for the default report.

TRACIN*xx* DD

Defines one or more trace log data sets (TLDSs) as input for trace data formatting.

This DD statement must refer to a VSAM trace data set (a TLDS not archived to tape), written by the online trace facility. Multiple TLDS data sets can be processed by specifying each in a DD statement with a ddname of TRACIN*xx*, where *xx* is any valid set of characters. Each TLDS is processed in the order it is specified in the job stream.

If TRACIN*xx* is defined, TRACEDIR and ARCIN are ignored.

TRACEDIR DD

Identifies a trace directory data set.

If no TRACIN*xx* statement is found, the TRACEDIR statement is processed.

The TRACEID keyword is required. All trace data sets produced with this trace ID are eligible for processing by reporting.

Note: It is recommended that you use the TARGET, DATE, and TIME keywords to further restrict which data sets are selected; only those TLDSs that meet the target, date, and time criteria specified by one or more of the report requests are allocated.

ARCIN DD

Defines an archived TLDS.

An archived TLDS is produced by the archive utility CMRBVUNL. You can use the ARCIN statement to print directly from this sequential data set without reloading it to a VSAM linear data set.

REPORT1 Defines the ddname for a report request.

The report request in the SYSIN stream defines the ddname of the output. There is no restriction on these ddnames other than uniqueness; they cannot duplicate other reserved ddnames.

Note: If the ddname specified for a report is missing, a diagnostic is written to SYSPRINT and the report is not produced.

SYSIN DD Specifies the in-stream report definitions.

Note: All input data is specified through the SYSIN DD statement. If the SYSIN DD statement is missing, DUMMYed, or empty, the default report selection is used. (See "Default Report Request" on page 365.)

Return Codes

The return codes set by the CMTBPRNT program are

0 All processing completed successfully.

4 Warning messages were issued. Defaults were taken to bypass an error condition. All output was probably produced successfully.

8 Error conditions were detected. Some output was produced successfully, but there is a strong possibility that not all requested output was produced correctly.

12 Serious error. No proper output was produced.

16 Internal processing error. Processing terminated.

For example, if two reports are requested and one of them has errors in the report definition, the return code is 8; one report is successfully produced, but the other is not. If only one report is requested and it has errors in the report definition that cause no output to be produced, the return code is 12.

Output Format

A single CMTBPRNT report can contain any combination of data from LTRAC, STRAC, and DTRAC. Alternatively, you can use separate DD statements to specify that multiple reports be produced from the data collected in a single pass.

The report format is the same as the format used for the online displays. Each line is 80 characters wide with the first position reserved for the attribute character. For normal output, the data is printed in columns 2 through 80.

Wide output is printed with the highest level requested left-aligned and lower levels indented. STRAC and DTRAC are indented five positions each. For example, when LTRAC, STRAC, and DTRAC are all requested:

```
LTRAC lines are aligned on the left margin;
     STRAC lines are indented 5 positions; and
        DTRAC lines are indented 10 positions.
```

All reports have common headings in the following format:

```
BMC SOFTWARE
REPORT:CMRTEST                                PAGE:       1
                                        DATE:   04NOV97
  DSNAME:    BOLHNG.CICS4102.TRAC01.V01                TIME:  10:34:11
  VOLSER:    STRBC1

  TITLE:     CICS APPLICATION TRACE            TYPE:            DETAIL
  START:     04NOV97 10.21.42                  GROUP EIP      :N
  STOP:      04NOV97 10.24.45                  FILE / DATABASE :Y
  STATUS:    COMPLETE                          STORAGE CONTROL :Y
  DATA LOST: NO                              PROGRAM CONTROL :Y
  REQUESTOR: BOLHNG2                              INTERVAL CONTROL:Y
  TRACEID:   TRAC01                            JOURNAL / SYNC  :Y
  TARGET:    CICS4102                          TEMP STORAGE    :Y
                                        TERMINAL / APPC :Y
                                        TASK CONTROL    :Y
                                        TRANSIENT DATA  :Y
                                        ERROR HANDLING  :Y

  TRANS ID  :TDRA
  PROGRAM   :
  USER      :
  TERMINAL  :

EXCEPTION FILTERS:
 RESPONSE     =>       CPU TIME     =>       SUSPEND TIME =>
 FC CALLS     =>       IRC WT CNT   =>       DSA STG HWM  =>
 FC I/O CNT   =>       IRC WT TIME  =>       DSA STG OCC  =>
 FC I/O TIME  =>       DB I/O CNT   =>       EDSA STG HWM =>
 FC XCPT CNT  =>       DB I/O TIME  =>       EDSA STG OCC =>
 FC XCPT TIME =>       ABENDS ONLY  => N

EXCEPTION RESOURCE NAMES:
  FILE     =>
  4TH GL   =>
  PLAN     =>
  PSB      =>
```

Figure 225. Sample CMTBPRNT Report Header

This heading is printed as each input data set is processed. If reports other than summary reports are requested, the headings are embedded within the body of the reports.

For either narrow or wide reports, the heading lines fill the entire width of the report. The values on the right are right-justified with the right margin. The title lines, if any, are centered in the report.

The date and time shown at the top right of the heading reflect the time the report was produced. The date and time of the event(s) reflected in the report are shown as the START and STOP time of the trace data recording (shown in lines 6 and 7 of the header) and in the data shown in the actual reports.

Lines 3 and 4 identify the input data sets. The remaining lines in the header indicate the options that were specified when the trace was made.

Within the body of the report, the values displayed are identical to the corresponding values on the screens of the online trace display, such as LTRAC or STRAC. If LTRAC and/or DTRAC

is requested, the column headings are shown at the start of each data stream and at the top of each page as secondary headings.

For descriptions of the online trace displays, see “Application Trace Displays” on page 327.

Default Report Request

If no report request is specified (SYSIN is empty, DUMMYed, or missing), CMTBPRNT constructs a default request:

```
REPORT  REPORTID=STD1,
      TITLE1='TRACE ENTRIES',
      LTRAC=YES ,
```

This request produces an LTRAC report with an ID of STD1 and a printed title of TRACE ENTRIES.

Example Report Request

The following example illustrates a report request:

```
GLOBAL  TIME=1300-1500
*
*      FULL EXAMINATION OF CERTAIN SPECIAL TRANSACTIONS
*
REPORT  REPORTID=SPECIALS,LTRAC=YES,STRAC=YES,DTRAC=YES,
      NEWPAGE=(TRAN,FIRSTEVENT)
```

In the example, the GLOBAL keyword TIME limits the trace output for the report to the interval between 1:00pm and 3:00pm.

The report is written on ddname SPECIALS. The report prints the one-line LTRAC entry, the STRAC performance summary, and all DTRAC events for selected TRANSACTIONS.

Figure 226, Figure 227 on page 366, and Figure 228 on page 366 are examples of these segments of a trace report.

The LTRAC Section of a Report:

```
04NOV97                 CICS APPLICATION TRACE
 END TIME   TRAN ID  PROGRAM  USERID   RESPONSE   CPU    WAITS   # STMTS
----------- -------- -------- -------- -------- -------- ------- -------
10:23:48.74 TDRA     TDRVASM  BOLPJE1     0.016    0.013   0.000       9
```

Figure 226. LTRAC Report Section

The STRAC Section of a Report:

```
TRAN ID       TDRA      START TIME  10:23:48.72  -- RESPONSE TIME ANALYSIS ---
 PROGRAM ID    TDRVASM   STOP TIME   10:23:48.74  DISPATCHED         1   0.016
 TASK NUMBER         67  RESPONSE         0.016  DISPATCH QUEUE     1   0.000
 TERM ID       T027      CPU TIME         0.013  FC I/O WAIT        0   0.000
 USER ID       BOLPJE1   FC CALLS            0  FC EXCEPTION       0   0.000
 NETWORK ID    SAA4T027  DL/I CALLS          0  DL/I IO WAIT       0   0.000
                         OTHER DB TYPE          OTHER DB REQ       0   0.000
 USER STORAGE     3,680  EXCPN TYPE             SUSPEND            0   0.000
 PGRM STORAGE    27,552                         TERMINAL CNTL      0   0.000
                         BMS MAPSET             INTERREGION        0   0.000
 DL/I PSBNAME            MESSAGES IN          1  TEMP STORAGE       0   0.000
 DB2 PLAN ID             MESSAGES OUT         1  TS EXCEPTION       0   0.000
 DB2 CORR ID             THINK TIME       0.000  JOURNAL CNTL       0   0.000
 DB2 AUTH ID                                     TRANSIENT DATA     0   0.000
                                                 PROGRAM LOADER     0   0.000
 ORIGIN ID     USBOOL01.SAA4T027                 USER ECB WAITS     0   0.000
 UNIT OF WORK   B86887A235BC0001                 OTHER WAIT             0.000
 ********************************** END OF DATA **********************************
```

Figure 227. STRAC Report Section

The DTRAC Section of a Report:

```
EVENT                 AT  ELAPSED    CPU   STG DETAIL
      ------------------------ ------ -------  ------ ---- --------
      START-PROGRAM TDRVASM     0.003 2,996us          3K
      HANDLE-CONDITION    0EF2  0.004   870us         20K MAPFAIL,QIDERR
      RESP                 0.004   478us            OK
      RECEIVE-MAP         0F36  0.004    10us            TDRVDC,MS=TDRVA00
      RESP                 0.006 1,481us         30K OK
      WRITEQ-TD           1014  0.006    10us            L86O
      RESP                 0.007 1,038us            OK
      HANDLE-CONDITION    104A  0.007    10us            QIDERR
      RESP                 0.007   416us            OK
      READQ-TD            107C  0.007    10us            L86O
      RESP                 0.008   972us            OK
      HANDLE-CONDITION    10B2  0.008    10us            QIDERR
      RESP                 0.009   406us            OK
      DELETEQ-TD          10D8  0.009    10us            L86O
      RESP                 0.010   975us            OK
      SEND-MAP            112E  0.010     9us            TDRVDC,MS=TDRVA00
      RESP                 0.011 1,183us            OK
      RETURN              3444  0.011    10us            TRANID=TDRA,CALEN=4
      END-PROGRAM TDRVASM       0.016     8us    13ms  30K
```

Figure 228. DTRAC Report Section

Chapter 12. STATUS Option

When you select Option 1, **STATUS**, from the Primary Option menu, the System Status Menu appears, as shown in Figure 229.

```
BMC SOFTWARE ------------  SYSTEM STATUS MENU ----------------- TIME: 12:31:44
COMMAND ===>                                                  CICS ===> CICSPROD


   1  AID          - Automatic Initiate Descriptors
   2  CLASSES      - CICS Class Statistics
   3  ENQUEUE      - Enqueued Resource Information
   4  ICE          - Interval Control Elements
   5  PPST         - Active DL/I Tasks
   6  REVIEW       - Review Startup Options
   7  TASK         - Current CICS Task List
   8  TSUT         - Temporary Storage IDs
   9  DB2TASK      - Current DB2 Task List
  10  DSA          - CICS Dynamic Storage Area Status
  11  ABEND        - Display Program Check ABEND Trace Table
  12  DBCTASK      - Current DBCTL Task List
  13  REGION       - MVS Region Storage Allocations
  14  MQTASK       - Current MQSeries Task List
```

Figure 229. System Status Menu

Note: Some of the options that appear on this menu are no longer described in this chapter. The information previously available through these full-screen, target-oriented services is now provided by single system image (SSI) views. The options on this menu are still supported for compatibility with earlier releases of MAINVIEW for CICS. The following list shows the obsolete options and the views that replace them.

Option 1, AID	CAIDS views in Chapter 4, “Operation Views”
Option 2, CLASSES	CTRNCLA views in Chapter 6, “Resource Views”
Option 4, ICE	CICES views in Chapter 4, “Operation Views”
Option 6, REVIEW	CREVIEW views in Chapter 5, “Region Views”
Option 7, TASK	TASK views in Chapter 7, “Task Views”
Option 8, TSUT	TSQUEUE views in Chapter 4, “Operation Views”

You can also select a status option from any MAINVIEW for CICS display by typing the appropriate command on the **COMMAND** line. The command must be preceded by the EXEC command; for example,

EXEC AID
or
EX AI

In the following sections, the description of each status option includes

- EXEC command format
- Further explanation of some of the commands
- Available action services

You can use the following qualifier characters with the EXEC command to limit the display:

+ Denotes positions that are not to be compared to the item's identifier, such as a program name or transaction ID; for example,

  EXEC PROGRAM D++ZATD

* Indicates that the remainder of the item's identifier is not to be compared; for example,

  EXEC PROGRAM DFH*

ENQUEUE: Enqueue Statistics

To display CICS transactions that are pending, waiting for resources, select Option 3, **ENQUEUE**, from the System Status Menu.

The ENQUEUE Display appears, as shown in Figure 230.

```
BMC SOFTWARE ------------------- ENQUEUE DISPLAY  ------------- TIME: 02:10:11
COMMAND ===>                                                 CICS ===> CICSPROD
  OWNER TRAN ------- ENQUEUE -------
   TASK  ID   ADDRESS    RESOURCE    -- TASK/TRANSACTIONS WAITING ON ENQUEUE ---
  35402 JNL2 0033D530 CMRJRNL        NO TASKS WAITING...
  42567 PAYR 0033D3C0 PAY.POINT.A11  48788/PAYS
  48788 PAYS 0033D490 PAY.POINT.B12  NO TASKS WAITING...
```

Figure 230. Sample ENQUEUE Display

Usage Notes

The Enqueue Display can be used for detecting bottlenecks and transaction deadlocks.

Command Conventions

Format: **EXec ENqueue *aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the enqueued resource name at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of the enqueued resources.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all enqueued resources.

bbbbbbbb Specifies the type of enqueues to be displayed.

***** or **ALL**	All enqueues
W or **WAITS**	Enqueues causing waits
N or **NOWAITS**	Enqueues without waits
D or **DEADLOCK**	Deadlocked enqueues

Commands:

EXPAND Displays a dump of an address when you position the cursor on an address (see Figure 273 on page 436).

Displays additional task information when you position the cursor on a line of an enqueued entry.

Locate **L *aaaaaaaa bbbbbbbb***

	Scrolling	Is available
Action Services:	**C**	PURGEs a task using the services of the CICS-supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.
	K	KILLs (abnormally terminates) a task without a dump as long as you can maintain the integrity of the CICS region.
	F	FORCEs a looping task to abend with a dump regardless of integrity exposure. It may be necessary to use this service more than once for a task in a loop in a multiprocessor environment.
	P	FORCEPURGEs a task using the services of the CICS-supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.

PPST: Active DL/I Database Calls

To view DL/I transactions as they run, and to monitor the kinds of calls executed and the number of each type, select Option 5, **PPST**, from the System Status Menu.

The PPST Display appears, as shown in Figure 231.

```
BMC SOFTWARE ------------------ PPST DISPLAY ------------------ TIME: 12:31:44
COMMAND ===>                                                  CICS ===> CICSPROD
  TRAN TERM  P.S.B.  I/O-AREA  ---------------DL/I CALL COUNTS---------------
   ID   ID  --NAME-- ADDRESS   -GU-  -GN- -GNP-  GHU  GHN GHNP ISRT DLET REPL
  TDL2 L77A ZPPP002P 001BD80C     2     9     0    0    0    0    0    0    0
  DMSS L77R SZPCUSR  001ACD04     4     2     1    0    2    0    0    0    2
  CSDS L77Q ZDB02PP  001DB20C     1     0     0    0    0    0    4    1    0
```

Figure 231. Sample PPST Display

Usage Notes

The PPST Display lists active DL/I transactions and their DL/I call count statistics, as well as the Program Specification Block (PSB) names and the user's current I/O area addresses.

You can view the

- Definition of DL/I on the DL/I Display (refer to "DL/I: DL/I Areas" on page 390)
- Definitions of DL/I databases, on the DDIR Display (refer to "DDIR: DMB Entries" on page 396)
- Definitions for PSBs on the PSBNAME Display (refer to "PSBNAME: DL/I PSB Names" on page 418)

Command Conventions

Format: **EXec PPST *aaaa***

where

aaaa Specifies the transaction ID to be displayed. When wildcard characters are used (+ or *), the PPST Display presents all matching transactions.

Commands:

EXPAND Provides a memory display of any address shown on the PPST Display when you place the cursor on the address (see Figure 273 on page 436).

Locate Is not available.

Scrolling Is available.

Action Services: None.

DB2TASK: DB2 Task Status

To display the status of current DB2 tasks, select Option 9, **DB2TASK**, from the System Status Menu.

The DB2TASK Display appears, as shown in Figure 232.

```
BMC SOFTWARE ------------ DB2TASK  DISPLAY -------------------- TIME: 10:37:11
COMMAND ===>                                                  CICS ===> CICSPROD
  TASK    CORR    AUTH      PLAN   PROGRAM  S RESOURCE -------- S Q L --------
   NO      ID      ID       NAME    NAME    T   TYPE    REQS  ELAPSED  CURRENT
  ___48 GT00TSM8 TSM8     TSMPL08  TSMCOM8  S ICWAIT       1   133 s
  ___51     TSM8 TSM8     TSMPL08  TSMCOM8  S DB2_THRD     1   127 s   SELECT
  ___54     TSM8 TSM8     TSMPL08  TSMCOM8  S DB2_THRD     1    67 s   SELECT
  ___55 GT00TSM3 ACCTDEP  TSMPL03  TSMCOM3  S ICWAIT       1     0 ms
  ___60 GT00D8CS D8CS     DSN8CC22 DSN8CC1  S DB2_WAIT     3     6 s   SELECT
  ___61     TSM8 TSM8     TSMPL08  TSMCOM8  S DB2_THRD     1     3 s   SELECT
```

Figure 232. Current DB2 Tasks

Usage Notes

The DB2TASK Displays provide information on the DB2 plan name, the correlation ID, the authorization ID, the current Structured Query Language (SQL) request, as well as the total number of SQL requests executed so far.

Command Conventions

Format: **EXec DB2Task *aaaa bbbbbbbb***

where

aaaa Specifies the transaction at which to position the display. (The transaction ID is the last four characters of the correlation ID.)

When the qualifier characters (+ or *) are used, the display is limited to a subset of transaction IDs.

When ***aaaa*** is omitted, all transactions are displayed.

bbbbbbbb Specifies the plan whose tasks are to be displayed.

When the qualifiers (+ or *) are used, the display is limited to a subset of plans.

When ***bbbbbbbb*** is omitted, all plans are displayed.

Commands: EXPAND Displays detail SQL activity for a selected task when you place the cursor on that task line (see Figure 233 on page 374).

	Locate	**L** ***aaaa bbbbbbbb***
	Scrolling	Is available.
Action Services:	**C**	PURGEs a task using the services of the CICS supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.
	K	KILLs (abnormally terminates) a task without a dump as long as you can maintain the integrity of the CICS region. **Note:** You can use the task kill exit (CMRXEIO), along with a transaction threshold table (CMRTTHR), to control the performance of tasks automatically. For more information, see the *MAINVIEW for CICS Customization Guide*.
	P	FORCEPURGEs a task using the services of the CICS supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.
	F	FORCEs a looping task to abend with a dump regardless of integrity exposure. It may be necessary to use this service more than once for a task in a loop in a multiprocessor environment.

CAUTION

The (F)orce option should be used with caution and at your discretion as it can cause the CICS region to abend. This option should be used only as a last resort in trying to save a CICS system which otherwise will have to be recycled.

DB2TXPND: DB2 Task Expand

To view detailed SQL statistics for a specific DB2 task, place the cursor on a task ID in the DB2TASK Display and press the EXPAND key. Figure 233 shows an example of the expanded statistics for a single DB2 task.

```
BMC SOFTWARE ---------------- DB2TXPND DISPLAY ------------ TIME: 14:27:42
COMMAND ===>                                            CICS ===> CICSPROD

  EXPANSION OF TASK # __230,    TRANSACTION: CIC1,    PROGRAM: CIC1MAIN
         TASK CURRENT STATUS: DB2  - WAIT FOR DB2 REQUEST COMPLETION
  PLAN NAME              CI2102P       DATABASE REQUEST MODULE    CIC1MAIN
  AUTHORIZATION ID       CICS2102      STATEMENT NUMBER               3188
  CORRELATION   ID       GT00CIC1      CURRENT SQL REQUEST           FETCH
  TERMINAL IDENT.        SC45

  - - - - - - - - S Q L   A C T I V I T Y   W A I T S - - - - - - - - -

              COUNT       ELAPSED                   COUNT     ELAPSED
  SELECT         22        134 ms      OPEN             1       84 ms
  INSERT         45          4 s       CLOSE
  UPDATE         12          2 s       FETCH          738        3 s
  DELETE                               OTHERS
  COMMIT          2          2 s
                                       TOTAL          820       11 s
```

Figure 233. DB2 Task Expand Display

Command Conventions

Format: **EXec DB2TXpnd *aaaaa***

where

aaaaa Specifies the task number of the task to be displayed. Leading zeros are required and you must enter this field as there is no default. Usually, however, you execute this function by expanding from the DB2TASK Display.

Commands:

EXPAND Is not available.

Locate Is not available.

Scrolling Is not available.

Action Services: None.

DSA: CICS Dynamic Storage Area Status

To display the various CICS dynamic storage areas (DSA) and MVS available storage, either

- Select Option 10, **DSA**, from the System Status Menu
- Select **DSA Overview** from the EZCICS or EZCFAST view in windows mode

The DSA Display appears, as shown in Figure 234.

```
BMC SOFTWARE -------------------- DSAS DISPLAY ---------------- TIME: 02:10:11
COMMAND ===>                                                  CICS ===> CICSPROD
                                   PCT   LARGEST  SOS  CUSHION       HWM    HWM
                 SIZE      USED   USED      FREE  COUNT   SIZE      USED    PCT
  CDSA        1,536K      424K   27.6    1,104K     0    256K      432K   28.1
  UDSA        3,072K      188K    6.1    2,884K     0    256K      188K    6.1
  ECDSA      10,240K      988K    9.6    9,244K     0    256K      992K    9.6
  EUDSA       8,192K        0K    0.0    8,192K     0    256K        4K    0.0
  ERDSA       8,192K    1,984K   24.2    6,208K     0    256K    1,984K   24.2

  MVS <16M    7,084K    5,120K   72.2    1,964K
  MVS >16M   32,768K   28,648K   87.4    4,120K
```

Figure 234. Sample DSA Display

Command Conventions

Format: **EXec DSAs**

Commands:

EXPAND	Provides the Subpool Display of a selected DSA when you position the cursor on a DSA line (see Figure 271 on page 431).
Locate	Is not available.
Scrolling	Is not available.

Action Services: None.

ABEND: Program Check and Abend Trace Table

To determine the cause of a program check or an interrupt, select Option 11, **ABEND**, from the System Status Menu.

The ABEND Display appears, as shown in Figure 235.

```
BMC SOFTWARE ------------------- ABEND DISPLAY ---------------- TIME: 12:31:44
COMMAND ===>                                                  CICS ===> CICSPROD
      TABLE   NUMBER    DUMPS     --CICS START--      CICS     TRACE TABLE
    ENTRIES    DUMPS   SUPPSD     DATE      TIME     VERSION     ADDRESS
          2        3        0  09/08/1997 12:31:44    3.1.1     0360A4D8

     02/09/1997   PSW 078D1000 004F2012  0C1 OPERATION EXCEPTION
       12:31:44       INT 01   COND 1    ILC 2    MODE: 24-BIT
           REGS   0-3 004F20A8 0009C118  006DDA70 004F2030
                  4-7 0069DCD0 006DEA60  0009B000 007497C0
                 8-11 00746694 00749BC0  006DA5B8 0009B670
                12-15 0009B190 0009C0B0  504F2080 004F2010

     02/09/1997   PSW 078D1000 80000004  0C1 OPERATION EXCEPTION
       10:02:05       INT 01   COND 1    ILC 2    MODE: 31-BIT
           REGS   0-3 00000000 070E0000  00000000 078D0000
                  4-7 00741872 078D0000  006F1EB8 00000000
       TCA ADDR  8-11 00000000 070E0000  00000000 00000000
       0009B190 12-15 00000000 00000000  00000000 00000000
```

Figure 235. Sample ABEND Display

Usage Notes

The ABEND Display includes the Program Check and Abend Trace Table for program checks and interrupts, as well as statistical information.

Command Conventions

Format: **EXec ABend**

Commands:

EXPAND	Provides a memory display of any address shown on the ABEND Display when you position the cursor on the address (see Figure 273 on page 436).
Locate	Is not available.
Scrolling	Is available.

Action Services: None.

DBCTASK: DBCTL Task List

To display DBCTL tasks currently active in a CICS region, select Option 12, **DBCTASK**, from the System Status Menu.

The DBCTASK Display appears, as shown in Figure 236.

```
BMC SOFTWARE ------------------ DBCTASK DISPLAY ---------------- TIME: 02:10:11
COMMAND ===>                                                  CICS ===> CICSPROD
  TASK  TRAN TERM  PROGRAM   PSB    RESOURCE RESOURCE PST REQUEST   DB  ELAPSED
   NO    ID   ID     NAME    NAME     TYPE     NAME   NO.  TYPE    REQS  TIME
  __457 DLZZ SC32  SCBLC01 STDCUSR1 DLSUSPND DBCTL     2  PSB_SCHD    1   1.143
  __458 DLZ1 SC33  SCBLC02 STDCUSR2 DLSUSPND DBCTL     3  DLI_REQ   420   0.820
  __550 DLZZ SC34  SCBLC03 STDCUSR3 DLSUSPND DBCTL     4  CONNECT     1   0.789
  __677 DLZ3 SC35  SCBLC04 STDCUSR4 DLSUSPND DBCTL        PSB_SCHD    1   0.142
```

Figure 236. Sample DBCTASK Display

Usage Notes

From the DBCTASK Display, you can pinpoint the DBCTL tasks that are waiting on the attachment for thread TCBs or on DBCTL for request completion.

If you have MAINVIEW for DBCTL installed, you can use the RGNxx and DLIST services along with the information from this display to determine the status of the task in the DBCTL region.

Be aware that this is a volatile display; tasks may start and stop while you are viewing.

Command Conventions

Format: **EXec DBCTAsk *aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the transaction IDs to display.

When a qualifier character (+ or *) is used, the display is limited to a subset of transaction IDs.

The possible values are:

blank	Displays all transactions.
4 characters	Displays the transaction as identified in character form.
5-8 characters	Displays the transaction as identified in hexadecimal format.

bbbbbbbb Specifies the type of tasks to be displayed.

***** or **ALL**
Active and suspended user tasks (the default)

A or **ACTIVE**
Active user tasks

S or **SUSPEND**
Suspended user tasks

Commands:

EXPAND — Provides additional information about a task when you position the cursor on the line displaying the task.

Locate — **L *aaaaaaaa bbbbbbbb***

Scrolling — Is available.

Action Services:

C — PURGEs a task using the services of the CICS supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.

K — KILLs (abnormally terminates) a task without a dump as long as you can maintain the integrity of the CICS region.

Note: You can use the task kill exit (CMRXEIO), along with a transaction threshold table (CMRTTHR), to control the performance of tasks automatically. For more information, see the *MAINVIEW for CICS Customization Guide*.

P — FORCEPURGEs a task using the services of the CICS supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.

F — FORCEs a looping task to abend with a dump regardless of integrity exposure. It may be necessary to use this service more than once for a task in a loop in a multiprocessor environment.

CAUTION

The (F)orce option should be used with caution and at your discretion as it can cause the CICS region to abend. This option should be used only as a last resort in trying to save a CICS system which otherwise will have to be recycled.

REGION: CICS Region Storage Allocations

To determine the source of problems related to storage allocations in the MVS address space or CICS, either

- Select Option 13, **REGION**, from the System Status Menu
- Select **Region Storage** from the EZCFAST view in windows mode

The REGION Display appears, as shown in Figure 237.

```
BMC SOFTWARE ------------------ REGION DISPLAY ---------------- TIME: 02:10:11
COMMAND ===>                                                  CICS ===> CICSPROD
    START     END                                       USED  SOS  LARGEST CUSHION
   ADDRESS  ADDRESS    AREA          SIZE     USED   PCT COUNT   FREE    SIZE
  00000000 00004FFF PSA/SYSTEM         20K            --
  00005000 007FFFFF PRIVATE         8,192K   5,816K   70        1,432K
  00026800 004A87FF CICS-DSA        4,616K     852K   18    0   3,698K    128K
  00010000 00668FFF MVS-REGION      6,500K   5,560K   85          940K
  00800000 00BE0FFF CSA             3,972K            --
  00BE1000 00BE6FFF MLPA               24K            --
  00BE7000 00EABFFF PLPA            2,836K            --
  00EAC000 00FCCFFF SQA             1,156K            --
  00FCD000 00FFFFFF MVS-NUCLEUS       204K            --
  --------------------- 16 MEG LINE ------------------------------------------
  01000000 01387FFF EXT-NUCLEUS     3,616K            --
  01388000 01DEAFFF EXT-SQA        10,636K            --
  01DEB000 02AE1FFF EXT-PLPA       13,276K            --
  02AE2000 02AE4FFF EXT-FLPA           12K            --
  02AE5000 02AFBFFF EXT-MLPA           92K            --
  02AFC000 048FFFFF EXT-CSA        30,736K            --
  04900000 04903FFF CICS-TRACE         16K            --
                    MVS-STORAGE    32,768K     228K    0       32,540K
```

Figure 237. Sample REGION Display

Usage Notes

The Regions Display can be used to identify over or under allocation of memory. The allocation of memory can be a problem particularly when cloning existing regions to create new regions.

Command Conventions

Format: **EXec REGions**

Commands:

EXPAND	Displays the contents of any address shown on the REGIONS display when you position the cursor on the address (see Figure 273 on page 436).
Locate	The FULL parameter can be used with the LOCATE command (L FULL) to expand summarized DSA extents shown in the REGION display.
Scrolling	Is available.

Action Services: None.

MQTASK: MQSeries Task Status

To display active and suspended CICS tasks accessing the MQSeries CICS adapter, select Option 14, **MQTASK**, from the System Status Menu, or hyperlink on the **MQ Threads** field on the CREGDET*n* view.

The MQTASK Display appears, as shown in Figure 238.

```
BMC SOFTWARE -------------- MQTASK DISPLAY -------------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
   TASK  TASK S TERM PROGRAM  RESOURCE RESOURCE    MQ  LAST  ELAPSED  THREAD
    #     ID  T  ID   NAME      TYPE     NAME    CALLS CALL   TIME      ID
   __423 WAXY S T318 CSQ4CUDU ZCIOWAIT DFHZARQ1      2 GET     1.234 0860DF00
   __438 WAXY S T419 CSQ4CUDU ZCIOWAIT DFHZARQ1      4 GET     1.987 0864ED00
   __398 WAXY S T617 CSQ3CUDU ZCIOWAIT DFHZARQ1      8 PUT     2.388 0863AC00
   __290 WAXY S T819 CSQ2CUDU ZCIOWAIT DFHZARQ1     16 PUT1    2.980 0862BB00
```

Figure 238. Sample MQTASK Display

Usage Notes

The MQTASK display shows current CICS tasks that are accessing the MQSeries CICS adapter. The display includes information about the current status of these tasks and key information about the calls to the MQSeries adapter.

Be aware that this is a volatile display; tasks may start and stop while you are viewing it.

Command Conventions

Format: **EXec MQTask *aaaa***

where

aaaa Specifies the transaction ID for which executing tasks are shown on this display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of transaction IDs.

The possible values are:

blank	Displays all transactions.
4 characters	Displays the transaction as identified in character form.

Commands: **EXPAND** When you position the cursor on any address (appears under Resource Name) shown on the MQTASK Display, provides a memory display of that address (see Figure 273 on page 436).

When you position the cursor on a task number, displays the easy menu associated with that task.

When you position the cursor following the task number on the line displaying the task, provides additional information about that task.

Note: Some tasks cannot be expanded.

Locate **L** ***aaaa***

Scrolling Is available.

Action Services:

C PURGEs a task using the services of the CICS supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.

K KILLs (abnormally terminates) a task without a dump as long as you can maintain the integrity of the CICS region.

Note: You can use the task kill exit (CMRXEIO), along with a transaction threshold table (CMRTTHR), to control the performance of tasks automatically. For more information, see the *MAINVIEW for CICS Customization Guide*.

P FORCEPURGEs a task using the services of the CICS supplied transaction CEMT. Further information on restrictions and results of this action service can be found in the IBM manual, *CICS Supplied Transactions*.

F FORCEs a looping task to abend with a dump regardless of integrity exposure. It may be necessary to use this service more than once for a task in a loop in a multiprocessor environment.

CAUTION

The (F)orce option should be used with caution and at your discretion as it can cause the CICS region to abend. This option should be used only as a last resort in trying to save a CICS system which otherwise will have to be recycled.

Chapter 13. NETWORK Option

When you select Option 2, **NETWORK**. from the Primary Option menu, the Network Management Menu appears, as shown in Figure 239.

```
BMC SOFTWARE ------------ NETWORK MANAGEMENT MENU ------------- TIME: 12:31:44
COMMAND ===>                                                CICS ===> CICSPROD


   1  TERMINAL     - Terminal / Line Status
   2  SERVICE      - Terminals Out of Service
   3  ACQUIRED     - Terminals Acquired
   4  VTAM         - VTAM Statistics
   5  NONRDO       - Terminals not supported by RDO
   6  CONNECT      - MRO and ISC Connections
   7  CONSOLES     - CICS Consoles
   8  SESSIONS     - MRO and ISC Sessions
```

Figure 239. Network Management Menu

Note: Most of the options that appear on this menu are no longer described in this chapter. The information previously available through these full-screen, target-oriented services is now provided by single system image (SSI) views. The options on this menu are still supported for compatibility with earlier releases of MAINVIEW for CICS. The following list shows the obsolete options and the views that replace them.

Option 1, TERMINAL	
Option 2, SERVICE	
Option 3, ACQUIRED	
Option 5, NONRDO	CTERM views in Chapter 6, “Resource Views”
Option 6, CONNECT	CCONN views in Chapter 6, “Resource Views”
Option 8, SESSIONS	CSESS views in Chapter 6, “Resource Views”

You can also select a network option from any MAINVIEW® for CICS display by typing the appropriate command on the **COMMAND** line. The command must be preceded by the EXEC command; for example,

EXEC TERMINAL
or
EX TE

In the following sections, the description of each network option includes

- EXEC command format
- Further explanation of some of the commands
- Available action services

You can use the following qualifier characters with the EXEC command to limit the display:

+ Denotes positions that are not to be compared to the item’s identifier, such as a program name or transaction ID; for example,

  EXEC PROGRAM D++ZATD

* Indicates that the remainder of the item's identifier is not to be compared; for example, EXEC PROGRAM DFH*

VTAM: VTAM Buffer Pool Statistics

To review the storage allocated to the CICS Virtual Telecommunications Access Method (VTAM) buffer pool, either

- Select Option 4, **VTAM**, from the Network Management Menu
- Select **VTAM Buffer Stats** from the EZCFAST view in windows mode

The VTAM Display appears, as shown in Figure 240.

```
BMC SOFTWARE -------------------- VTAM DISPLAY ---------------- TIME: 12:31:44
COMMAND ===>                                                CICS ===> CICSPROD
  BFR  USAGE  BFFR  -CURRENT-   -MAXIMUM-  -EXPANSION- -THRESHOLD- QUEUED-RPHS
  ID.  COUNT  SIZE ALLOC AVAIL ALLOC  USED TIMES  INCR EXPAN CONTR H-W-M  CURR
  IO00   N/A   271   400   207   400   269     0    28    33   N/A     0     0
  LP00   N/A  1344    20     6    26    22    42     3     2     8     6     0
  WP00   N/A   208   373    65   373   364     8    18     4    40     0     0
  LF00   N/A    84   179    65   179   129     2    39    20    98     0     0
  CRPL   N/A   118   317    61   347   305     5    30    40   100     0     0
  SF00   N/A    76    73    22    73    65     1    42     6    90     0     0
  SP00   N/A   112     3     3     3     2     0    32     1   N/A     0     0
  AP00   N/A    64    16    16    16     0     0    51     3   N/A     0     0

  VTAM-SHORT-ON-STORAGE-COUNT       0      VTAM-DYNAMIC-OPEN-COUNT          0
  MAXIMUM-NUMBER-RPLS-POSTED        1      NUMBR-TIMES-MAXIMUM-REACHED     14
  LIMIT-OF-ACTIVE-SRB-MODE-RA       5      CURRENT-ACTIVE-RA-RPL-COUNT      0
  FIXED-MAXIMUM-NUMBER-RPLS        20      CURRENT-NUMBER-OF-FREE-RPLS      0
  MAXIMUM-I/O-AREA-RECEIVE-ANY    700      TERMINAL-SCAN-DELAY-TIME       600
```

Figure 240. Sample VTAM Display

Usage Notes

The VTAM Display is equivalent to issuing the D NET,BFRUSE command.

Command Conventions

Format:	**EXec Vtam**	
Commands:	EXPAND	Is not available.
	Locate	Is not available.
	Scrolling	Is not available.
Action Services:	None	

CONSOLES: Consoles Defined to CICS

To display statistics on consoles defined to the CICS region, select Option 7, **CONSOLES**, from the Network Management Menu.

The VTAM Display appears, as shown in Figure 241.

```
BMC SOFTWARE ------------ CONSOLES DISPLAY -------------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
  TERM  ---CONSOLE---    USER      TOTAL    TOTAL    TOTAL   HDWR   STG -TRAN-
   ID   NAME   STATUS     ID       TRANS   INPUTS  OUTPUTS   ERRS   VIO   ID
  CERR  *ERRCON*  INS                  0        0        0      0     0
  CN00  INTERNAL  INS                  0        0        0      0     0
  CN01  SYSCM001  INS                  1        1        0      0     0
  CN02  SYSCS001  INS                  0        0        0      0     0
  CN03  SYSCS002  INS                  0        0        0      0     0
  CN04  SYSCS003  INS                  0        0        0      0     0
```

Figure 241. Sample CONSOLES Display by Name

Usage Notes

From this display, you can bring consoles in or take them out of service.

To view statistics for a single console, place the cursor on a console name in the CONSOLES Display and press the EXPAND key.

Command Conventions

Format: **EXec CONSoles** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Is a CICS terminal ID (defined as a console) or user ID of a user logged on to a console. For CICS releases that support named consoles, this field is a console name.

When a qualifier character (+ or *) is used, the display is limited to a subset of connection IDs.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all consoles.

bbbbbbbb Specifies the type of console to be displayed.

***** or **ALL**
All consoles

I or **INSERVE**
In service consoles

O or **OUTSERVE**
Out of service consoles

U or **USED**
Used consoles

CU or **CURRENT**
Currently in use

E or **ERRORS**
With hardware errors

S or **SIGNED**
Signed on terminals

V or **VIOLINS**
With storage violations

Commands:	EXPAND	Provides additional terminal information when you position the cursor on the line displaying a console.
	Locate	**L *aaaaaaaa bbbbbbbb***
	Scrolling	Is available.
Action Services:	**I**	Puts terminal in service.
	O	Takes terminal out of service.
	C	PURGEs a task using the services of the CICS-supplied transaction, CEMT. For information about CEMT restrictions and results, see the IBM manual, *CICS Supplied Transactions*.
	P	FORCEPURGEs a task using the services of the CICS-supplied transaction, CEMT. For information about CEMT restrictions and results, see the IBM manual, *CICS Supplied Transactions*.

Chapter 14. FILES Option

When you select Option 3, **FILES**, from the Primary Option menu, the File Management Menu appears, as shown in Figure 242.

```
BMC SOFTWARE --------------- FILE MANAGEMENT MENU ------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD


  1  DEST         - Destination Control Table Status
  2  DL/I         - DL/I System Status
  3  FILE         - Data Set / File Status
  4  JOURNAL      - Journal Use Statistics
  5  SHARE        - Local Shared Resource Usage
  6  TEMPSTRG     - Temporary Storage Usage
  7  DDIR         - Display DMB Entries
  8  DB2SYSP      - DB2 Attach System Parameters
  9  PLAN         - Display DB2 Plan Entries
 10  DSNAMES      - Data Set / File Names
 11  TIOT         - Display CICS Allocations
 12  DATATABL     - CICS Data Tables Statistics
 13  DBCTL        - DBCTL System Parameters
 14  VOLUMES      - Display DASD Volume Allocations
 15  MQSERIES     - Display MQSeries Interface Status
```

Figure 242. File Management Menu

Note: Option 3, FILE, is not described in this chapter. The information previously available through this full-screen, target-oriented service is now provided by the CFILE views, as described in Chapter 6, “Resource Views”. The CFILE option on this menu is still supported for compatibility with earlier releases of MAINVIEW for CICS.

You can also select a file option from any MAINVIEW for CICS display by typing the appropriate command on the command line. The command must be preceded by the EXEC command; for example,

EXEC DEST
or
EX DE

In the following sections, the description of each file option includes

- EXEC command format
- Further explanation of some of the commands
- Available action services

You can use the following qualifier characters with the EXEC command to limit the display:

+ Denotes positions that are not to be compared to the item’s identifier, such as a program name or transaction ID; for example,

  EXEC PROGRAM D++ZATD

* Indicates that the remainder of the item’s identifier is not to be compared; for example,

  EXEC PROGRAM DFH*

DEST: Transient Data Destinations

To display CICS transient data destinations and their status, either

- Select Option 1, **DEST**, from the File Management Menu
- Select **Destinations** from the EZCFAST view in windows mode

The DEST Display appears, as shown in Figure 243.

```
BMC SOFTWARE ------------ DEST DISPLAY ------------------------ TIME: 13:12:35
COMMAND ===>                                                 CICS ===> CICSPROD
  DEST  USAGE  DESTINATION IND.  -REMOTE-   ---------INTRA---------   -EXTRA-
   ID   COUNT  TYPE STATUS DEST SYSID DEST QUEUED TRAN TERM TRIG. RC DSCNAME OC
  CADL       0 INDIR. N/A  CSSL
  CAIL       0 INDIR. N/A  CSSL
  CCPI       0 INDIR. N/A  CSSL
  CCSE       0 INDIR. N/A  CCSO
  CCSO       0 EXTRA. ENA                                          COUT     O
  CDBC       0 INDIR. N/A  CSSL
  CDUL       0 INDIR. N/A  CSSL
  CESE       0 INDIR. N/A  CSSL
  CESO       0 INDIR. N/A  CSSL
  CMIG       0 INDIR. N/A  CSSL
  CPLD       0 INDIR. N/A  CPLI
  CPLI       0 EXTRA. ENA                                          PLIMSG   O
  CRDI       0 INDIR. N/A  CSSL
  CSCS       0 INDIR. N/A  CSSL
  CSDL       0 INDIR. N/A  CSSL
  CSFL       0 INDIR. N/A  CSSL
  CSKL       0 INDIR. N/A  CSSL
  CSML       0 INDIR. N/A  CSSL
  CSMT       3 INDIR. N/A  CSSL
  CSNE       0 INDIR. N/A  CSSL
```

Figure 243. Sample DEST Display

Command Conventions

Format: **EXec DEst *aaaa bbbbbbbb***

where

aaaa Specifies the transient data destination ID at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of transient data destinations.

When ***aaaa*** is omitted, MAINVIEW for CICS displays all transient data destinations.

bbbbbbbb Specifies the type of destination to be displayed.

***** or **ALL**
All destinations (the default)

D or **DISABLED**
Disabled destinations

E or **ENABLED**
Enabled destinations

X or **EX** or **EXTRA**
Extrapartition destinations

I or **INDIRECT**
Indirect destinations

INT or **INTRA**
Intrapartition destinations

R or **REMOTE**
Remote destinations

L or **LOCAL**
No remote destinations

U or **USED**
Used destinations

T or **TRIGGER**
All triggered destinations

Commands:	EXPAND	Displays memory of an address when you position the cursor on an address (see Figure 273 on page 436).
		Displays additional data set information when you position the cursor on a line (see Figure 257 on page 409).
	Locate	**L *aaaa bbbbbbbb***
	Scrolling	Is available.
Action Services:	**E**	Enables a destination, making it available for use by transactions.
	D	Disables a destination, making it unavailable for use by transactions. Indirect and remote destinations cannot be disabled.
	P	Purges queued entries from a triggered destination. A disabled queue cannot be purged.

DL/I: DL/I Areas

To display DL/I buffers and to see their effect on the CICS system, either

- Select Option 2, **DL/I**, from the File Management Menu
- Select **Local DL/I Overview** from the EZCFAST view in windows mode

The DL/I Display appears, as shown in Figure 244.

```
BMC SOFTWARE ------------------- DL/I DISPLAY ----------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD

  -------BUFFER POOL STATISTICS-------    ------SYSTEM CONTENT DIRECTORY------
  BUFFER POOL PREFIX ADDRESS  00135000    SYSTEM CONTENT DIR. ADDRESS 0002C2D0
  BUFFER REQUESTS RECEIVED          84    CURRENT DL/I VERSION            3.10
  REQUESTS SATISFIED BY POOL        88    DL/I MAXIMUM TASK VALUE            1
  PHYSICAL READ REQUESTS            16    CURRENT MAXIMUM TASK VALUE         1
  BUFFER ALTER REQUESTS              0    TOTAL SUSPENDED TASK COUNT         0
  PHYSICAL WRITE REQUESTS            0    ACTIVE DL/I TASKS                  0
  NUMBER OF KEYED CALLS             33
  NUMBER OF "GN" CALLS              51    PSB DIRECTORY ADDRESS       004909A8
  PERMANENT WRITE ERRORS             0    NUMBER OF PSBS                    43
  MAXIMUM WRITE ERRORS               0    PSB POOL SPACE MAXIMUM          4096
  NUMBER OF BUFFER SUBPOOLS          7    PSB POOL SPACE AVAILABLE         192
                                          MAXIMUM PSB POOL IN USE         3904
                                          PSB POOL SPACE EXHAUSTED           0
  ISB POOL ADDRESS            0001C9B8    DMB DIRECTORY ADDRESS       00491348
  NUMBER OF ISBS IN POOL             1    NUMBER OF DMBS                    37
                                          DMB POOL SPACE MAXIMUM          4096
  ENQ POOL SPACE MAXIMUM          2048    DMB POOL SPACE AVAILABLE        1408
  MAXIMUM ENQ POOL IN USE         1024    MAXIMUM DMB POOL IN USE         2688
                                          DMB POOL SPACE EXHAUSTED           0
```

Figure 244. Sample DL/I Display

Usage Notes

The DL/I Display depicts buffer pool statistics and information from the System Content Directory (SCD).

Currently processing DL/I activity can be seen in the PPST Display (see Figure 231 on page 371). The Data Management Block (DMB) definitions can be seen in the DDIR Display (see Figure 249 on page 396). The defined program specification blocks (PSBs) can be seen in the PSBNAME Display (see Figure 263 on page 418).

Command Conventions

Format: **EXec DL/i**

Commands:

EXPAND	Provides a memory display of any address shown on the DL/I Display when you position the cursor on the address (see Figure 273 on page 436).
Locate	Is not available.
Scrolling	Is not available.

Action Services: None.

JOURNAL: Journal Performance Statistics

To display the CICS journal performance statistics by journal identifier, select Option 4, **JOURNAL**, from the File Management Menu.

The Journal Display appears, as shown in Figure 245.

```
BMC SOFTWARE ------------ JOURNAL  DISPLAY -------------------- TIME: 13:12:58
COMMAND ===>                                                 CICS ===> CICSPROD
  JOURNAL DEV  CREATE  ----JOURNAL---  RECORDS  BLOCK --BUFFER--  AVG  ARCHJCL
    ID.   CUU   DATE   TYPE  DCB MODE  WRITTEN  COUNT FULL  SIZE  SIZE MEMBER
  DFHJ01A D30 1997:041 DISK2 OPE SIO      2110    703    2  6000   756 DFH$ARCH
  DFHJ02A D31 1997:041 DISK2 OPE SIO       123     13    0  6000   342 USR$J02
  DFHJ03A D33 1997:041 DISK2 OPE SIO     41221   1733    0  6000  5460 USR$JO3
  **************************** END OF DATA ***********************************
```

Figure 245. Sample JOURNAL Display

Usage Notes

The information on the Journal Display can be used to tune DASD space and to cut down on unnecessary I/O activity.

Command Conventions

Format: **EXec Journal** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the journal name at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of journal names.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all journals.

bbbbbbb Specifies the type of destination to be displayed.

***** or **ALL**

All CICS journals

O or **OPEN**

Open journals

C or **CLOSED**

Closed journals

U or **USED**

Used journals

A or **AUTO**

Uses autoarchive

N or **NOAUTO**

No autoarchive

S or **SMF**

Journals to SMF

Commands:	EXPAND	Displays additional data set information when you position the cursor on a line (see Figure 257 on page 409).
	Locate	**L *aaaaaaaa bbbbbbbb***
	Scrolling	Is available.
Action Services:	None.	

SHARE: VSAM Shared Resource Subpool Statistics

To display CICS Virtual Storage Access Method (VSAM) shared resource subpool statistics, either

- Select Option 5, **SHARE**, from the File Management Menu
- Select **LSR Analysis** from the EZCFAST view in windows mode

The Share Display appears, as shown in Figure 246.

```
BMC SOFTWARE ------------------- SHARE DISPLAY ---------------- TIME: 02:10:11
COMMAND ===>                                                 CICS ===> CICSPROD
  ------ VSAM SHARED BUFFER ------ LOOK-ASIDE --STR WAITS--  NUM  ACT  KEY  NM
  SIZE CNT HCNT   READS    WRITES     HITS    TOT  MAX  CUR  ACT  HWM LNGTH STR
  LSR POOL # 1                                  0    0    0    0    0    45   3
  .5K    8 N/A  _____1203 ______231 _____9081 88.3%
   1K   20 N/A  ________0 ________0 ________0 _0.0%
   2K   12 N/A  ________0 ________0 ________0 _0.0%
   4K   24   40 ____22441 _____9811 ___134565 85.7%
   8K   24   40 ____35465 _____1741 ____72899 67.2%
  16K   24   40 _____1908 ________4 ____88920 97.9%
  24K   32   60 ____56721 ____12321 ____43242 43.2%
  LSR POOL # 2                                  0    0    0    0    0     0   0
  LSR POOL # 3                                  0    0    0    0    0     0   0
  LSR POOL # 4                                  0    0    0    0    0     0   0
  LSR POOL # 5                                  0    0    0    0    0     0   0
  LSR POOL # 6                                  0    0    0    0    0     0   0
  LSR POOL # 7                                  0    0    0    0    0     0   0
  LSR POOL # 8                                  0    0    0    0    0     0   0
```

Figure 246. Sample Share Display

Usage Notes

The Share Display is repeated for each subpool.

Command Conventions

Format: **EXec SHare *n***

where

n Specifies the subpool to be displayed.

1,2,3,4,5,6,7,8
VSAM LSR pool ID

Commands:

EXPAND	Is not available.
Locate	**L *n***
Scrolling	Is available.

Action Services: None.

TEMPSTRG: Temporary Storage Usage Statistics

To display CICS temporary storage usage statistics, select Option 6, **TEMPSTRG**, from the File Management Menu.

The TEMPSTRG Display appears, as shown in Figure 247.

```
BMC SOFTWARE ------------------ TEMPSTRG DISPLAY --------------- TIME: 12:31:44
COMMAND ===>                                                  CICS ===> CICSPROD

                              TEMPORARY STORAGE
  --AUXILIARY STORAGE ----------------     --AUXILIARY STORAGE ----------------
  NUMBER OF CONTROL INTERVALS      556     CONTROL INTERVAL SIZE           4096
  NUMBER OF CI'S IN USE            153     SEGMENT SIZE                      64
  NUMBER OF CI'S AVAILABLE         403     SEGMENTS PER CONTROL INTERVAL     63
  PERCENT OF CI'S AVAILABLE        72%     COLD START SPECIFIED              NO
  MAXIMUM NUMBER OF CI'S USED      202     TEMP STORAGE TABLE SUFFIX         PJ
  NUMBER OF SUSPENSIONS              0     QUEUE EXTENSION THRESHOLD          4
  NUMBER OF WRITES > CI SIZE         3     NUMBER OF EXTENSIONS             104

  --AUXILIARY STORAGE BUFFERS---------     --AUXILIARY I/O STATISTICS----------
  NUMBER OF BUFFERS                  8     NUMBER OF PUTS AUXILIARY       32453
  NUMBER OF BUFFER WAITS            22     NUMBER OF GETS AUXILIARY       31231
  CURRENT USERS IN BUFFER WAIT       0     NUMBER I/O FOR GET REQUESTS     3244
  MAXIMUM USERS IN BUFFER WAIT       4     PERCENT OF BUFFER HITS           89%

  --AUXILIARY STORAGE STRINGS---------     --TEMPORARY STORAGE MAIN------------
  NUMBER OF STRINGS                  3     CURRENT STORAGE IN USE           68K
  NUMBER OF STRING WAITS           122     MAXIMUM STORAGE IN USE          128K
  CURRENT USERS IN STRING WAIT       0     NUMBER OF PUTS MAIN            12376
  MAXIMUM USERS IN STRING WAIT      12     NUMBER OF GETS MAIN            11678
```

Figure 247. Sample TEMPSTRG Display

Command Conventions

Format: **EXec TEMPstrg**

Commands:

EXPAND	Displays a bit map of Auxiliary Temporary Storage when you position the cursor in the display.
Locate	Is not available.
Scrolling	Is not available.

Action Services: None.

TEMPXPND: Temporary Storage Map Expand

To see a map of the auxiliary temporary storage data set, press the EXPAND key from the TEMPSTRG Display. MAINVIEW for CICS presents the TEMPXPND Display shown in Figure 248.

```
BMC SOFTWARE ------------------- TEMPXPND DISPLAY ------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
            DATA SET NAME IS CICS321.CICSPROD.DFHTEMP
   CI #          AUXILIARY TEMPORARY STORAGE BIT MAP    ONE BYTE PER CI
      0     AAAAAAAAAAAAAAAAAAAAAAAAAAPPAAAAAAAAAAAAAAAAAAPPAAAAAPAAAAAAAAAAAA
     64     APAAAAAAAPAAPAAAAAAAAPAAAAPAAAA____PAAAA___PPPPP__AAA_PAAPAAAAAA
    128     AAPPPP_______PPAAAAA__________PPPPAAAAAAAAAAAAAAAAAPPPP_____AAAA_
    192     ____PP______AAAA___PPAAAAAA_______AAAAA__PPP_______________________
    256     ____________________________________________________________________
```

Figure 248. Sample TEMPXPND Display

Usage Notes

The displayed map contains one byte per control interval in the VSAM temporary storage data set, as follows:

A Indicates a totally allocated control interval (full).

P Indicates a partially allocated control interval.

_ (Underscore) Indicates an empty control interval.

Command Conventions

Format: **EXec TEMPXpnd**

Commands:	EXPAND	Is not available.
	Locate	Is not available.
	Scrolling	Is available.

Action Services: None.

DDIR: DMB Entries

To display the database name and relative definition and status information in the Data Management Block (DMB) directory, select Option 7, **DDIR**, from the File Management Menu.

The DDIR Display appears, as shown in Figure 249.

```
BMC SOFTWARE ------------------ DDIR DISPLAY ------------------ TIME: 12:31:44
COMMAND ===>                                                  CICS ===> CICSPROD
              DMB      DMB   STOP/   OPEN    ACCESS
  DMB NAME   ADDRESS  LENGTH  START  STATUS   INTENT
  DI21PARO                    START  NOTINIT
  DI21PART                    START  NOTINIT
  STDCDBP   00152BE8     816  START  OPEN    EXCLUSIVE
  STDCX1P   0014FE18     312  START  OPEN    EXCLUSIVE
  STDCX2P   00152A88     312  START  CLOSED  EXCLUSIVE
  STDIDBP   0015A008     696  START  OPEN    EXCLUSIVE
  STDIX1P   0015A2F8     312  START  CLOSED  EXCLUSIVE
```

Figure 249. Sample DDIR Display

Usage Notes

The definition of the DL/I system can be viewed on the DL/I display (see Figure 244 on page 390). Currently executing DL/I activity can be seen on the PPST display (see Figure 231 on page 371). The defined PSB's can be seen on the PSBNAME display (see Figure 263 on page 418).

Command Conventions

Format: **EXec DDir** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the database name (DMB) at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of databases.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all databases.

bbbbbbbb Specifies the type of databases to be displayed.

***** or **ALL**
All databases (the default)

O or **OPEN**
Open databases (an open ACB if Virtual Storage Access Method (VSAM); an open DCB if Overflow Sequential Access Method (OSAM))

C or **CLOSED**
Closed databases (a closed ACB if VSAM; a closed DCB if OSAM)

S or **STARTED**

Active databases

STO or **STOPPED**
Inactive databases

N or **NOTINIT**
Not initialized databases

U or **USED**
Used databases

Commands:

EXPAND — Provides a memory display of any address shown on the DDIR Display when you position the cursor on the address (see Figure 273 on page 436).

Provides more information about the database when you position the cursor on the specific database line as shown in Figure 251 on page 400.

Locate — **L *aaaaaaaa bbbbbbbb***

Scrolling — Is available.

Action Services: You can control database availability to the operating system and to transactions using these services:

D — Prepares a database for dumping by preventing updates. Then you can run a backup job in another region.

P — Logically stops a database, closing it if open.

R — Prepares a database for recovery by preventing reads and updates. Then you can run a recovery utility in another region.

S — Starts a database, making it logically available for processing.

Note: You may not see immediate results after issuing an action service, because the request must be scheduled to CICS.

DDIRXPND: DMB Entry Expand of a Specific Database

To view an expanded description of a specific database in the DMB, place the cursor on a database name in the DDIR Display and press the EXPAND key. MAINVIEW for CICS presents the DDIRXPND Display for that database.

A sample expanded description for a single database is shown in Figure 250.

```
BMC SOFTWARE ------------------ DDIRXPND DISPLAY -------------- TIME: 12:31:44
COMMAND ===>                                                CICS ===> CICSPROD
                              EXPANSION OF DMB STDCX1P
           DATA SET NAME IS CICS210.DLI210.DBCUX1
           DATABASE STARTED           YES         VSAM READS       40
           DIR. INITIALIZED           YES         VSAM UPDATES      0
           ACB/DCB STATUS            OPEN         VSAM ADDS         0
           ACCESS INTENT        EXCLUSIVE         VSAM DELETE       0
           WRITE ERROR                 NO         CI SPLITS         0
           DB IN ERROR                 NO         CA SPLITS         0
           DMB ORGANIZATION  VSAM INDEX 1         DATA EXCPS        1
           DATA SET TYPE             KSDS         INDEX EXCPS       7
           SHORTEST SEGMENT            36
           LARGEST SEGMENT             36         DATA EXTENTS      1
           DBRC SHARE LEVEL             0         INDEX EXTENT      1
           DMB NUMBER                  34         DATA RECORDS     22
           ACB STORAGE ADDR      0014FEFC         INDEX RECORD      1
           DDNAME IN USE         STDCX1P          INDEX LEVELS      1
                                                  OPEN RC          00
```

Figure 250. Sample DDIRXPND Display

Usage Notes

The data in the first column is equivalent to the DMB parameters. The second column contains VSAM information.

If the ddname is different from the DMB name, the DMB must be in virtual storage to obtain the data set name.

Command Conventions

Format: **EXec DDIRXpnd *aaaaaaaa***

where

aaaaaaaa Specifies the database to be displayed.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays the first database.

Commands: EXPAND Provides a memory display of any address shown on the DDIRXPND display when you position the cursor on the address (see Figure 273 on page 436).

It also provides more information about this database when you position the cursor on the **COMMAND** line and press the EXPAND key (see Figure 251 on page 400).

Locate	**L** ***aaaaaaaa***
Scrolling	Is available; it sequentially displays each database.

Action Services: None.

DDIRXPN2: DMB Entry Expand for VSAM Clusters

To view a second page of expanded DMB information, press the EXPAND key from the DDIRXPND Display. MAINVIEW for CICS presents the DDIRXPN2 Display, as shown in Figure 251.

```
BMC SOFTWARE ------------------ DDIRXPN2 DISPLAY -------------- TIME: 12:31:44
COMMAND ===>                                              CICS ===> CICSPROD
                      EXPANSION OF DMB STDCX1P
  DATA SET NAME IS CICSPRD.DLI210.DBCUX1
  --CLUSTER INFORMATION-- ------------     ---------------------- ------------
  DMB ORGANIZATION        VSAM INDEX 1     DATA SET TYPE                  KSDS
  IMBED OPTION                     YES     SPANNED RECORDS                  NO
  REPLICATE OPTION                 YES     WRITE CHECK REQUIRED             NO
  KEY RANGES IN USE                 NO     FIRST VOLUME SERIAL          DASD74
  SECOND VOLUME SERIAL          DASD78     THIRD VOLUME SERIAL             N/A
  --DATA COMPONENT------- ------------     ---------------------- ------------
  CONTROL INTERVAL SIZE         24,576     CI'S / CONTROL AREA             465
  % FREE SPACE / CI                 10     % FREE SPACE / CA                10
  FREE BYTES / CI                  102     FREE CI'S / CA                   46
  TOTAL CI SPLITS                    0     TOTAL CA SPLITS                   0
  MAXIMUM RECORD SIZE               36     AVAILABLE SPACE          18,475,136
  KEY POSITION                       5     KEY LENGTH                       31

  --INDEX COMPONENT------ ------------     ---------------------- ------------
  CONTROL INTERVAL SIZE          4,096     CI'S / CONTROL AREA              10
  # OF INDEX LEVELS                  1     AVAILABLE SPACE              36,864
  TOTAL CI SPLITS                    0     TOTAL CA SPLITS                   0
```

Figure 251. Sample DDIRXPN2 Display

Usage Notes

The DDIRXPN2 Display contains Virtual Storage Access Method (VSAM) cluster definition and usage information.

Command Conventions

Format: **EXec DDIRXPN2** ***aaaaaaaa***

where

aaaaaaaa Specifies the database at which to position the display.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays the first database.

Commands:

EXPAND	Is not available.
Locate	**L** ***aaaaaaaa***
Scrolling	Is available; it sequentially displays each database.

Action Services: None.

DB2SYSP: CICS/DB2 System Attach Parameters

To review the CICS/DB2 Attachment Facility parameters, either

- Select Option 8, **DB2SYSP**, from the File Management Menu
- Select **DB2 Overview** from the EZCFAST view in windows mode

MAINVIEW for CICS presents the DB2SYSP Display appropriate for your release of CICS.

Figure 252 shows the DB2SYSP Display for the CICS Transaction Server (CTS) 1.2. This display presents information on the CICS/DB2 connection, including POOL threads and COMMAND threads.

```
BMC SOFTWARE ---------------- DB2SYSP DISPLAY----------- TIME:  14:27:42
COMMAND ===>                                          CICS ===> CICSPROD

--------------------- DB2 CONNECTION ATTRIBUTES ------------------------

DB2 CONNECTION NAME         RCT0G     1ST ERROR DESTINATION         CSMT
DB2 SUBSYSTEM  NAME          DB0G     2ND ERROR DESTINATION         ****
DB2 SUBSYSTEM  REL            410     3RD ERROR DESTINATION         ****
SIGNON ID                CICS52C1     STATISTICS DESTINATION        CSSL

MAX NUMBER OF TCBS           2000     STANDBY MODE             RECONNECT
THREAD PURGE CYCLE        00 , 00     NON TERMINAL RELEASE           YES
THREAD ERROR ACTION         N906D     CONNECT ERROR ACTION       SQLCODE

--------------------- DB2 CONNECTION STATUS ----------------------------

CICS NAME                CICS52C1     CURRENT NUMBER OF TCBS          50
ATTACHMENT STATUS          ACCESS     HWM OF TCBS                     20
CONNECTION STATUS       CONNECTED     NUMBER OF FREE TCBS             30
CONNECT TIME    08/10/97 10:15:20
DISCONNECT TIME               N/A     NBR OF TASKS ON READYQ          02
DB2CONN STATE           MACRO RCT     HWM OF TASKS ON READYQ          05
```

Figure 252. Sample DB2SYSP Display (CTS 1.2 and above)

Figure 253 on page 402 shows the DB2SYSP Display for all other supported releases of CICS. This display presents those parameters of the Attachment Facility that establish general system, plan, and thread defaults.

```
BMC SOFTWARE ---------------- DB2SYSP DISPLAY----------- TIME:  14:27:42
COMMAND ===>                                            CICS ===> CICSPROD

--------------------- DB2 ATTACH SYSTEM PARAMETERS ---------------------

CONTROL TABLE SUFFIX            A     SNAP DUMP SYSOUT CLASS          A
DB2 SUBSYSTEM  NAME          DB2C     1ST ERROR DESTINATION ID      CSMT
DB2 SUBSYSTEM  RELEASE        210     2ND ERROR DESTINATION ID      ****
AUTHORIZATION IDENTITY   CICSPROD     3RD ERROR DESTINATION ID      ****
START WAIT FOR DB2            YES     STATISTICS DESTINATION        CSSL

-------- PLAN DEFAULTS ----------     ------- THREAD DEFAULTS ----------

DYNAMIC PLAN EXIT PROG   DSN@CUEX     MAXIMUM NO. OF THREADS          38
DYNAMIC ENTRY TRACE ID         C1     THREAD PURGE TIME               30
DYNAMIC EXIT  TRACE ID         C2     THREAD TCB PRIORITY           HIGH
DB2/SQL CALL  TRACE ID         C0     ROLLBACK ON DEADLOCK           YES
NUMBER OF PLAN ENTRIES         19
NUMBER OF TRANSACTIONS         23
```

Figure 253. Sample DB2SYSP Display (Prior to CTS 1.2)

Command Conventions

Format: **EXec DB2Sysp**

Commands:

EXPAND	Is not available.
Locate	Is not available.
Scrolling	Is not available.

Action Services: None.

PLAN: CICS/DB2 Plan Entries

To display the DB2 plans and transactions defined to the CICS/DB2 Attachment Facility, select Option 9, PLAN, from the File Management Menu.

For systems running CTS 1.2 or later, MAINVIEW for CICS presents the Plan Display shown in Figure 254.

```
BMC SOFTWARE -------------------- PLAN DISPLAY ---------------- TIME: 14:27:42
COMMAND ===>                                                 CICS ===> CICSPROD

 ENTRY    TRAN   PLAN    ------- THREADS -------   ------- STATISTICS --------
 NAME      ID     ID     THRDM THRDA THRDS TWAIT    USED  REUSE%  THWTS  THWM

ACT1    + ACT1  PLNACCT     5     3     3   YES     4505     70       3     4
ACT2      ACT2  ********    2     1     1   YES
BORD      BORD  PLN001      4     4     4   YES     2004     90      15     6
BRD1      BRD1  PLN001      4     4     4   YES
C888      C888  DSN8CC51    7     3     3   YES     7303     65     214     5
C999      C999  DSN8CC51    7     3     3   YES
CIC4      CIC4  CI4201P     8     5     0   YES      367      0       0     5
D8CS      D8CS  DSN8CC51    7     3     3   YES       10     30       0     1
POOL      POOL  DSNPOOLP   10    10     0   YES    21339      0      34    11
PY01      PY01  PAYR01P     5     3     0   POOL     100      0       0     4
TR01      TR01  CMRPLN01    4     4     0   NO     13201      0    8109     8
ZRX0      ZRX0  ACMRPLN2    5     5     5   YES     1190     72       0     4
```

Figure 254. Sample PLAN Display (CTS 1.2 and above)

Note: For systems running any other supported release of CICS, the PLAN display differs in these ways:

- A PLAN NAME field replaces the ENTRY NAME field.
- An AUTH ID field replaces the PLAN ID field.

Usage Notes

The Plan Display shows up to a maximum of 65 transaction IDs defined per each plan entry in the RCT. This display also provides thread use statistics gathered by MAINVIEW for CICS at the transaction level within each plan entry.

Use these statistics to detect excessive thread waits (THWTS) by the DB2 transactions that could result in degraded CICS performance due to potential bottlenecks in the Attachment Facility.

You can also use the thread REUSE% field and the thread high-water mark, THWM (representing the maximum number of concurrent tasks that accessed the DB2 Plan), to tune the thread maximum (THRDM) and the thread active (THRDA) values.

Each plan entry can be expanded to view the Structured Query Language (SQL) statistics gathered by MAINVIEW for CICS at the transaction level.

Command Conventions

Format: **EXec PLan *aaaaaaaa bbbb***

where

	aaaaaaaa	Specifies the plan name at which to position the display. When the qualifier characters (+ or *) are used, the display is limited to a subset of plan names. When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all plans.
	bbbb	Specifies the type of PLAN entries to be displayed. **A** or **ALL** Selects all plans (the default) **U** or **USED** Selects plan entries that have been used
Commands:	EXPAND	Displays detailed SQL activity for a selected plan when you position the cursor on the line displaying the plan entry (see Figure 255 on page 405).
	Locate	**L** ***aaaaaaaa***
	Scrolling	Is available.
Action Services:	None.	

PLANXPND: CICS/DB2 Plan Entry Expand

To view statistics for a PLAN entry, place the cursor on a PLAN entry in the PLAN Display and press the EXPAND key.

Figure 255 shows sample expanded statistics for a PLAN entry.

```
BMC SOFTWARE ---------------- PLANXPND DISPLAY ----------- TIME: 14:27:42
COMMAND ===>                                            CICS ===> CICSPROD
                    EXPANSION OF ENTRY NAME: TR01
  TRANSACTION   IDENT         TR01        MAXIMUM NO. OF THREADS     4
  PLAN NAME               CMRPLN01        NO. OF ACTIVE THREADS      4
  AUTHORIZATION IDENT       SIGNID        NO. OF PROTECTED THREADS   0
  NO. OF AUTHORIZATIONS      13501        THREAD HIGH-WATER MARK     8
  PLAN ENTRY USE COUNT       13201        THREAD WAIT TYPE         YES
  ENTRY THREAD WAITS          8109        THREAD TCB PRIORITY     HIGH
  DYNAMIC PLAN EXIT PGM.  DSN@CUEX

- - - - - - - - - -  S Q L   A C T I V I T Y   W A I T S - - - - - - - - - -

                  ELAPSED  AVERAGE                      ELAPSED  AVERAGE
SELECT    23100   0:05:02   131 ms    OPEN       2301   0:01:40    43 ms
INSERT      798   0:03:00   225 ms    CLOSE      2301   0:00:55    23 ms
UPDATE    12903   0:09:00    42 ms    FETCH    150013   0:11:00     4 ms
DELETE                                OTHERS
COMMIT    13500   0:19:00    84 ms
                                      TOTAL    202615   0:49:37    15 ms
```

Figure 255. Sample PLANXPND Display (CTS 1.2 and above)

Note: For systems running any other supported release of CICS, the PLANXPND display differs in these ways:

- The title line reads EXPANSION OF PLAN NAME rather than ENTRY NAME.
- The PLAN NAME field is excluded.

Command Conventions

Format: **EXec PLANXpnd *aaaaaaaa bbbb***

where

aaaaaaaa Specifies the DB2 plan to be displayed.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays the first plan.

bbbb Specifies the DB2 transaction to be displayed.

When ***bbbb*** is omitted, MAINVIEW for CICS displays the first transaction for the plan.

Commands: EXPAND Provides more information about the transaction with the TRANXPND service.

Locate	**L *aaaaaaaa bbbb***
Scrolling	Is available; it sequentially displays each transaction within a plan.

Action Services: None.

DSNAMES: Data Sets Defined to CICS

To display a list of data set names associated with files defined in the CICS File Control Table (FCT), select Option 10, DSNAMES, from the File Management Menu.

The DSNAMES Display appears, as shown in Figure 256.

```
BMC SOFTWARE ------------ DSNAMES  DISPLAY -------------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
  --------- DATASET -----------
  --NAME-- TYPE --STATUS--- LSR  DATA SET NAME
  ACCTFIL  VSAM CLOSED  ENA  1  CICS311.ACCTFILE
  ACCTIX   VSAM CLOSED  ENA  1  CICS311.ACIXFILE
  CMRKSDS  CMDT OPENED  ENA  1  CICS320.CICS3205.CMRKSDS
  DFHCSD   VSAM CLOSED  UNE  1  CICS311.DFHCSD
  FILEA    KSDS OPENED  ENA  1  CICS311.CICS3112.FILEA
```

Figure 256. Sample DSNAMES Display

Usage Notes

The displayed data set names are taken from DD statements if they are present. If there are no DD statements, the data set names are taken from the File Control Table (FCT) definition. If a file is defined with both a DD statement and a data set name in the FCT, the DD statement is used when the file is opened. Remote files are not shown on this display, the data set name is not applicable to this file type.

Command Conventions

Format: **EXec DSNames** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Selects file by name.

When the qualifier characters (+ or *) are used, the display is limited to a subset of files.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all files.

bbbbbbbb Specifies the type of files to be displayed.

*****
All files (the default)

O or **OPEN**
Open files

C or **CLOSED**
Closed files

D or **DISABLED**
Disabled files

E or **ENABLED**
Enabled files

U or **UNENABLED**

Unenabled files

US or **USED**
Previously accessed files

V or **VSAM**
Virtual Storage Access Method (VSAM) files

L or **LSR**
VSAM Local Shared Resources (LSR) files

1,2,3,4,5,6,7,8
VSAM LSR pool ID

N or **NSR**
VSAM Nonshared Resources (NSR) files

B or **BDAM**
Basic Direct Access Method (BDAM) files

T or **TABLES**
CICS or user-maintained data tables

Commands:

EXPAND	Provides file information when you position the cursor on a line.
Locate	**L *aaaaaaaa bbbbbbbb***
Scrolling	Is available.

Action Services: When you request an action service, the result may not be effective immediately because the request must be scheduled to CICS. In addition, various transition states such as CLOSING or ENABLING are possible.

O	Opens a file.
C	Closes a file.
E	Enables a file.
D	Disables a file.
F	Frees a file, which causes a dynamic deallocation of the file.

TIOT: Data Sets Defined to the CICS Region

To display the Task Input Output Table (TIOT) for any target region, either

- Select Option 11, **TIOT**, from the File Management Menu
- Select **DFHRPL Data Sets** from the EZCFAST view in windows mode

The TIOT Display appears, as shown in Figure 257.

```
BMC SOFTWARE ------------ TIOT DISPLAY ------------------------ TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
                 JOBNAME: CICSPROD   STEPNAME: CICSPROD
  DDNAME   SEQ  FCT VOLUME    EXCPS   DATA SET NAME
  SYSIN      0  NO  BAB009        3 CICS321.CONTROL
  STEPLIB    0  NO  BAB301       97 CICS321.SDFHAUTH
             1      BAB004      148 IMS.V3100.RESLIB
             2      BAB304          DSN220.DSNLOAD
             3      TSG304        2 SYSP.COB2.COB2CICS
  DFHRPL     0  NO  BAB023      685 CICS321.SDFHLOAD
             1      BAB040       34 CICS321.LOADLIB
             2      BAB013       16 CMR32.CMR.LOAD
             3      BAB013          CMR32.CMR.LOAD
             4      BAB019       45 CMR32.ENG.LINKLIB
             5      BAB020       17 CMR32.BASE.LINKLIB
  BBPARM     0  NO  BAB025        2 CMR.SSA1.PARMLIB
  DFSRESLB   0  NO  BAB004       52 IMS.V3100.RESLIB
  IEFRDER    0  NO  DUMMY
  DFSVSAMP   0  NO  BAB308        3 BB.SCI.IMSPARMS
  IMSACB     0  NO  BAB306        4 CICS321.DLI310.ACBLIB
  STDCDBC    0  NO  BAB048          CICS321.CICS3215.DLI310.DBCUST
```

Figure 257. Sample TIOT Display

Usage Notes

The TIOT display can be used to help debug data set definition problems in CICS or the BBI-SS PAS.

Command Conventions

Format: **EXec TIot *aaaaaaaa bbbbb***

where

aaaaaaaa Specifies the DDNAME at which to position the display. For example, the command EXEC TIOT DFHRPL positions the DFHRPL DDNAME at the top of the screen.

When the qualifier characters (+ or *) are used, the display is limited to a subset of ddnames. For example, EX TIOT DFH* produces a display of DDNAMEs starting with DFH only.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all data sets.

bbbbb Specifies the type of entries to be displayed.

*****
All TIOT entries (the default)

F or **FCT**
All TIOT entries with matching FCT entries

N or **NOFCT**
All TIOT entries without matching FCT entries

Commands:	EXPAND	Provides file information for TIOT entries defined in the FCT when you position the cursor on a line.
	Locate	**L *aaaaaaaa bbbbb***
	Scrolling	Is available.
Action Services:	None.	

DATATABL: Data Tables Defined to CICS

To display a list of the CICS and user-maintained data tables defined to a CICS region, select Option 12, **DATATABL**, from the File Management Menu.

The DATATABL Display appears, as shown in Figure 258.

```
BMC SOFTWARE ------------ DATATABL DISPLAY -------------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
   ----- DATA TABLE ------   -------DATA TABLE REQUESTS------    FAILED   VSAM
  --NAME-- TYPE --STATUS---     READ      ADD  UPDATE  DELETE      ADDS   READS
  CMRCSDS  CMDT OPENED  ENA        0       19       0       0         0       1
  CMRKSDS  CMDT OPENED  ENA        0      212       0       0         0       0
```

Figure 258. Sample Data Table Display

Command Conventions

Format: **EXec DAtatabl** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Selects file by name.

When the qualifier characters (+ or *) are used, the display is limited to a subset of files.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all files.

bbbbbbbb Specifies the type of files to be displayed.

***** or **ALL**
All files (the default)

O or **OPEN**
Open files

C or **CLOSED**
Closed files

D or **DISABLED**
Disabled files

E or **ENABLED**
Enabled files

U or **UNENABLED**
Unenabled files

US or **USED**
Previously accessed files

Commands: EXPAND Provides file information when you position the cursor on a line.

Locate	**L** ***aaaaaaaa bbbbbbbb***
Scrolling	Is available.

Action Services: You must be authorized to use the following action services from this display. When you request an action service, the result may not be effective immediately because the request must be scheduled to CICS. In addition, various transition states such as CLOSING or ENABLING are possible.

O	Opens a file.
C	Closes a file.
E	Enables a file.
D	Disables a file.
F	Frees a file, which causes a dynamic deallocation of the file.

DBCTL: DBCTL Interface Parameters

To display the DBCTL interface parameters that identify key information about the Database Resource Adapter (DRA) in a CICS region, either

- Select Option 13, **DBCTL**, from the File Management Menu
- Select **DBCTL Overview** from the EZCFAST view in windows mode

The DBCTL Display appears, as shown in Figure 259.

```
BMC SOFTWARE --------------- DBCTL DISPLAY ------------- TIME: 02:10:11
COMMAND ===>                                          CICS ===> CICSPROD
  ------------------ DBCTL INTERFACE PARAMETERS -----------------------

  DBCTL IDENTIFIER              XB2D   MINIMUM THREADS           2
  DBCTL JOBNAME               IMS31X   MAXIMUM THREADS           5
  DBCTL STATUS                 READY   ACTIVE  THREADS           1
  DBCTL REGION TYPE            DB/DC   SESSION NUMBER            1
  STARTUP TABLE SUFFIX            31   PSB SCHEDULE COUNT       45
  CMD RECOGNITION CHAR             0   CONNECT TIME       00:12:45
```

Figure 259. Sample DBCTL Display

Command Conventions

Format: **EXec DBCtl**

Commands:

EXPAND	Is not available.
Locate	Is not available.
Scrolling	Is not available.

Action Services: None.

VOLUMES: DASD Volume Usage

To display the number of EXCPs and allocation requests to a DASD volume by a CICS region, either

- Select Option 14, **VOLUMES**, from the File Management Menu
- Select **Volume Activity** from the EZCFAST view in windows mode

The Volumes Display appears, as shown in Figure 260.

```
BMC SOFTWARE ------------------ VOLUMES DISPLAY --------------- TIME: 12:31:44
COMMAND ===>                                                CICS ===> CICSPROD
  VOLUME      EXCP   ALLOC   DEVICE   DEVICE   DEVICE
    ID       COUNT   COUNT    ADDR     TYPE    STATUS
  HNG310    12,130       9     310     3390    ONLINE
  HNG311    11,416      13     311     3390    ONLINE
  HNG312    12,676      31     312     3390    ONLINE
  HNG313    61,439      22     313     3390    ONLINE
  HNG314    54,233      14     314     3390    ONLINE
  PJE411     3,945      11     411     3390    ONLINE
  PJE414     4,711      12     414     3390    ONLINE
  PJE415     4,211      13     415     3390    ONLINE
  RGN122     1,119      12     122     3390    ONLINE
  RGN123    34,990       7     123     3390    ONLINE
```

Figure 260. Sample Volumes Display

Usage Notes

The counts are collected from the MVS Task Input/Output Table (TIOT). These counts match those displayed in the TIOT Display.

Expanding a display line in the Volumes Display brings up the TIOT Display, which shows the data sets allocated on the volume by the CICS region.

Command Conventions

Format: **EXec VOLumes** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the volume ID.

Wildcard characters (+ and *) may be used to restrict the display to those volumes whose ID matches the filter mask.

bbbbbbbb Identifies the type of volumes to be shown.

***** or **ALL**	All volumes
D or **DEVICE**	Display is shown in device sequence

Commands:	EXPAND	Expands to the TIOT service to display data from a single DASD volume.
	Locate	Is not available.
	Scrolling	Is not available.
Action Services:	None.	

MQSERIES: MQSeries Status

To display an overview of the MQSeries CICS adapter, select Option 15, **MQSERIES**, from the File Management Menu.

The MQSeries Display appears, as shown in Figure 261.

```
BMC SOFTWARE ------------ MQSERIES DISPLAY -------------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
  ----------------------  CICS MQSERIES ADAPTER  ----------------------------

  CICS INTERFACE                MQSERIES IN CICS          MQ API STATISTICS
   MQ SUBSYSTEM         CSQ1     CURRENT TASKS        3    TOTAL CALLS       76
   MQ CONNECTION   CONNECTED     TOTAL TASKS          3    NOMINAL           68
   CICS JOB NAME    CICS4102     BACKED OUT           0    MQOPEN            11
   CICS JOB STEP    CICS4102     COMMITTED            3    MQCLOSE            8
   REAL MEMORY         9044K     SINGLE PHASE         0    MQGET             27
   CPU TIME            33.09     TWO PHASE            3    MQGET WAIT         1
   EXCP COUNT          3,442                              MQPUT              0
   STARTED  09/10/1997 11:55    MQ TASK RECOVERY          MQPUT1            13
                                 INDOUBT TASKS        0    MQINQ             17
  MQ SUBSYSTEM                   UNRESOLVED           0    MQSET              0
   MQ JOB NAME      CSQ1MSTR     COMMITED             0
   MQ JOB STEP      CSQ1MSTR     BACKOUT              0   MQ TASK FLOWS
   REAL MEMORY         4292K                              SYNC COMP         78
   CPU TIME             8.67    CICS TRACE                SUSPEND REQ        0
   EXCP COUNT          1,388     MQ NUMBER            9    MSG WAIT           1
   STARTED  09/10/1997 12:21     STATUS              ON    SWITCHED          85

  INITIATION QUEUE NAME: CTS110.CICSPROD.INITQ
```

Figure 261. Sample MQSeries Display

Usage Notes

You can use this view to see the current status of the MQSeries subsystem and of CICS. Available information includes the number of currently executing tasks and other relevant statistics.

Command Conventions

Format: **EXec MQseries**

Commands: None.

Action Services: None.

Chapter 15. PROGRAMS Option

When you select Option 4, **PROGRAMS** from the Primary Option menu, the Program Management Menu appears, as shown in Figure 262.

```
BMC SOFTWARE ------------ PROGRAM MANAGEMENT MENU ------------- TIME: 19:30:24
COMMAND ===>                                                CICS ===> CICSPROD


  1  PROGRAM      - CICS PROGRAM STATUS
  2  PSBNAME      - DL/I PSB SENSITIVITY (LOCAL DL/I ONLY)
  3  SUFFIX       - CURRENT CICS SUFFIXES
  4  TRAN         - TRANSACTION STATUS
  5  NUCLEUS      - CICS NUCLEUS PROGRAMS
  6  EXITS        - TASK RELATED AND GLOBAL USER EXITS
  7  REMOTES      - REMOTE CICS PROGRAM STATUS
  8  LPA          - MVS LINK PACK AREAS (LPA)
  9  TCB          - MVS TASK CONTROL BLOCKS (TCB)
 10  TCLASS       - TRANSACTION CLASSES DISPLAY
```

Figure 262. Program Management Menu

Note: Some of the options that appear on this menu are no longer described in this chapter. The information previously available through these full-screen, target-oriented services is now provided by single system image (SSI) views. The options on this menu are still supported for compatibility with earlier releases of MAINVIEW for CICS. The following list shows the obsolete options and the views that replace them.

Option 1, PROGRAM	CPROG views in Chapter 6, “Resource Views”
Option 4, TRAN	CTRAN views in Chapter 6, “Resource Views”
Option 10, TCLASS	CTRNCLA views in Chapter 6, “Resource Views”

You can also select a program option from any MAINVIEW® for CICS display by typing the appropriate command on the **COMMAND** line. The command must be preceded by the EXEC command; for example,

EXEC PROGRAM
or
EX PR

In the following sections, the description of each program option includes

- EXEC command format
- Further explanation of some of the commands
- Available action services

You can use the following qualifier characters with the EXEC command to limit the display:

+ Denotes positions that are not to be compared to the item’s identifier, such as a program name or transaction ID; for example,

  EXEC PROGRAM D++ZATD

* Indicates that the remainder of the item’s identifier is not to be compared; for example,

  EXEC PROGRAM DFH*

PSBNAME: DL/I PSB Names

To view an active DL/I program specification block (PSB) defined to the CICS partition and to determine which Database Definitions (DBDs) the PSB is allowed to access, select Option 2, **PSBNAME**, from the Program Management Menu.

The PSBNAME Display appears, as shown in Figure 263.

```
BMC SOFTWARE ------------------ PSBNAME  DISPLAY -------------- TIME: 12:31:44
COMMAND ===>                                                CICS ===> CICSPROD
  (P.S.B.) PSB  --DBD-- STATUS PROC. --DBD-- STATUS PROC. --DBD-- STATUS PROC
  --NAME-- TYP  --NAME-- CODE  OPTN. --NAME-- CODE  OPTN. --NAME-- CODE  OPTN
  #TBCUSR  BAL ZRRDDBP    GE   A    ZSSDDBP         AP   ZAADDBP         GOP
  #TBCUSU  BAL ZRRDDBP    R    A    ZSSDDBP         A    ZAADDBP         A
  DFSSAM01 PLI FVNL       GB   AP
  DFSSAM02 PLI FVNL       GB   AP
  STBICT1  N/A
  STBICT2  N/A
```

Figure 263. Sample PSBNAME Display

Usage Notes

The definition of the DL/I system can be seen in the DL/I Display (see Figure 244 on page 390). The definition of the DMBs can be seen in the DDIR Display (see Figure 249 on page 396). Currently-in-use PSBs can be seen in the PPST Display (see Figure 231 on page 371).

Command Conventions

Format: **EXec PSBname** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the PSB name at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of PSB names.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all PSB names.

bbbbbbbb Specifies the type of PSBs to be displayed.

***** or **ALL**
All PSBs (the default)

I or **INSTORE**
PSBs that are currently loaded into storage

U or **USED**
Used PSBs

Commands:

EXPAND	Is not available.
Locate	**L** ***aaaaaaaa bbbbbbbb***
Scrolling	Is available.

Action Services: None.

SUFFIX: Suffixes in Use

To display CICS suffixes in use for the CICS management modules and tables, and to review startup table changes and CICS nucleus modules and tables, select Option 3, **SUFFIX**, from the Program Management Menu.

The SUFFIX Display appears, as shown in Figure 264.

```
BMC SOFTWARE ------------------ SUFFIXES DISPLAY -------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
  MODULE MODULE  MODULE    MODULE MODULE  MODULE    TABLE  TABLE    TABLE
   NAME  SUFFIX  ADDRESS    NAME  SUFFIX  ADDRESS   NAME   SUFFIX  ADDRESS
  DFHALP        00645508   DFHMCP        00476994   DFHALT   NO   --NONE--
  DFHBFP        005C2248   DFHM32        005CF7C2   DFHDCT   2$   005D2010
  DFHCMP        005B56AC   DFHPBP        005C6912   DFHFCT   21   005DB2C8
  DFHCSA        0064F6E0   DFHPCP        005E44B0   DFHJCT   21   005EA3F8
  DFHDBP   1$   -IN PPT-   DFHRLR        005C5B22   DFHMCT   T1   005B50B8
  DFHDCP        005BD38C   DFHSCP        005F5FF8   DFHNLT   21   --NONE--
  DFHDIP   NO   005C1DD8   DFHSIT   PR   00652798   DFHPCT   21   005E9B80
  DFHDLI   NO   0059D130   DFHSPP        0064432C   PLTPI    NO   -IN PPT-
  DFHDSB        005C89A2   DFHSRP        005BBAEC   PLTSD    NO   -IN PPT-
  DFHEIP        0064C53C   DFHTCP   S$   005F8CF8   DFHPPT   22   005DF304
  DFHFCP        005A84DC   DFHTDP        005D22F8   DFHSRT   1$   005BB498
  DFHFDP        005A2E24   DFHTPP        005CA272   DFHTCT   22   005F8728
  DFHICP        0063EBA8   DFHTRP        005B2CBC   DFHTST   21   005D5FC8
  DFHIIP        005D0C02   DFHTSP        005D607C   DFHXLT   NO   --NONE--
  DFHISP        005ED3A8   DFHXSP        0064030C
  DFHJCP        005EA928   DFHZCP   S$   0063766C
  DFHKCP        406489D4
```

Figure 264. Sample SUFFIX Display

Usage Notes

The addresses shown for DFHPPT and DFHPCT are the first entry in each table. For entries in the PPT, the address is shown as -IN PPT-. These entries can be examined through the Program service. For entries that do not exist, the address is shown as --NONE--.

Command Conventions

Format: **EXec SUFfixes**

Commands:

EXPAND	Provides a memory display of any address shown on the Suffixes Display when you position the cursor on the address (see Figure 273 on page 436).
Locate	Is not available.
Scrolling	Is not available.

Action Services: None.

NUCLEUS: CICS Nucleus Module Display

To display a list of CICS modules not defined in the Program Processing Table (PPT), select Option 5, **NUCLEUS**, from the Program Management Menu.

The NUCLEUS Display appears, as shown in Figure 265.

```
BMC SOFTWARE ------------ NUCLEUS  DISPLAY -------------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
  PROGRAM    PROGRAM PROGRAM     0        1         2         3         4
   NAME      ADDRESS  LENGTH RPL 12345678901234567890123456789012345678901234 56
  DFHAFMT   03AF0A40   6,920   0   >MODHEAD P 321DFHAFMT 05/03/91@21.34  c   E
  DFHAIIN   03AF2BD0   2,136   0   >MODHEAD P 321DFHAIIN105/03/91@21.38      E
  DFHAIIQ   03AF5760   1,496   0   >MODHEAD P 321DFHAIIQ 09/03/97@21.39      E
  DFHAIP    00043680   9,952   0 *DFHEIP     y0321I                    *
  DFHAIRP   03BFD0E0   1,576   0   >MODHEAD P 321DFHAIRP 05/03/91@21.43      E
  DFHAITM   03AF86B0   2,696   0   >MODHEAD P 321DFHAITM 09/03/97@21.46      E
  DFHALP    03AF9940   9,392   0 *DFHALP  c r-0321I             &           K
  DFHAPDM   03AD5000   5,240   0   >MODHEAD P 321DFHAPDM 05/03/91@22.33  c  UE
```

Figure 265. Sample NUCLEUS Display

Usage Notes

The NUCLEUS display shows the nucleus modules defined in the Current Program Entry (CPE) table.

This display is useful for identifying the maintenance level of the various programs. Programs on the MVS Contents Directory Entry (CDE) chain are displayed only if specifically selected.

Command Conventions

Format: **EXec NUCleus** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the CICS program name at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of program names.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all programs.

bbbbbbbb Specifies the type of programs to be displayed.

***** or **ALL**
All programs (the default)

I or **INCORE**
Programs in memory

O or **OUTCORE**
Only programs not in memory

S or **SHARED**
Only programs in the Link Pack Area

P or **PRIVATE**
Only programs not in the Link Pack Area

C or **CDE**
Only programs in the MVS Contents Directory Entry (CDE) chain

Commands:	EXPAND	Provides a memory display of the selected program when you position the cursor on the line displaying the program (see Figure 273 on page 436).
	Locate	**L *aaaaaaaa bbbbbbbb***
	Scrolling	Is available.
Action Services:	None.	

EXITS: CICS Exit Display

To display a list of exits defined to the CICS region, select Option 6, **EXITS**, from the Program Management Menu.

The EXITS Display appears, as shown in Figure 266.

```
BMC SOFTWARE -------------------- EXITS DISPLAY --------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
   EXIT      LOAD     EXIT     ENTRY   EXIT   GLOBAL   GLOBAL   TASK  CICS
   NAME     MODULE   PROGRAM  ADDRESS  START  ADDRESS   SIZE    SIZE  LOAD  RPL
  TASKSTART CMRTRUE3 CMRTRUE3 000F5E40  YES                     1,032  YES   4
  XKCREQ    CMRKCPX3 CMRKCPX3 83ADBCC8  YES                            YES   3
  XFCREQ    CMRKCPX3 CMRKCPX3 83ADBCC8  YES                            YES   3
  XMNOUT    CMRCMPX3 CMRCMPX3 83ADA320  YES                            YES   3
  XICREQ    CMRKCPX3 CMRKCPX3 83ADBCC8  YES                            YES   3
  XDLIPRE   CMRKCPX3 CMRKCPX3 83ADBCC8  YES                            YES   3
  XDLIPOST  CMRKCPX3 CMRKCPX3 83ADBCC8  YES                            YES   3
```

Figure 266. Sample EXITS Display

Usage Notes

The Exits Display shows the current CICS Global User Exit (GLUE) and Task Related User Exit (TRUE) entries and related load modules.

Command Conventions

Format: **EXec EXIts** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the CICS load module at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of program names.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all load modules.

bbbbbbbb Specifies the type of exit to be displayed.

***** or **ALL**
All exits (the default)

S or **STARTED**
Only started exits

STO or **STOPPED**
Only exits that have not been started

G or **GLUE**
Only Global User Exits

T or **TRUE**
Only Task Related User Exits

C or **CMR**
Only MAINVIEW for CICS exits

N or **NOCMR**
No MAINVIEW for CICS exits

Commands:	EXPAND	Provides a memory display of the selected entry address when you position the cursor on the line displaying an exit (see Figure 273 on page 436).
	Locate	**L** ***aaaaaaaa bbbbbbbb***
	Scrolling	Is available.

Action Services: None

REMOTES: CICS Remote Programs

To display the remote programs defined in the CICS Processing Program Table (PPT), select Option 7, **REMOTES**, from the Program Management Menu.

The REMOTES Display appears, as shown in Figure 267.

```
BMC SOFTWARE ------------- REMOTES DISPLAY -------------------- TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
  PROGRAM    CUR  REMOTE  REMOTE   SERVER
    ID.      USE  SYSTEM  PROGRAM   TRAN
  ACCT00       0   C322   ACCT00    CSMI
  ACCT01       0   C322   ACCT01    CSMI
  ACCT02       0   C322   ACCT02    CSMI
  ACCT03       0   C322   ACCT03    CSMI
  ACCT04       0   C322   ACCT04    CSMI
```

Figure 267. Sample REMOTES Display

Command Conventions

Format: **EXec REMotes** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the CICS remote program name at which to position the display.

When the qualifier characters (+ or *) are used, the display is limited to a subset of remote program names.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all remote programs.

bbbbbbbb Specifies the type of remote program to be displayed.

***** or **ALL**
All remote programs (the default)

U or **USED**
Used remote programs

C or **CURRENT**
Currently used programs

Commands:

EXPAND	Is not available.
Locate	**L** ***aaaaaaaa bbbbbbbb***
Scrolling	Is available.

Action Services: None.

LPA: MVS Link Pack Area Programs

To display a list of the various programs in the MVS link pack areas (LPA), select Option 8, **LPA**, from the Program Management Menu.

The LPA Display appears, as shown in Figure 268.

```
BMC SOFTWARE -------------------- LPA DISPLAY ----------------- TIME: 02:10:11
COMMAND ===>                                                  CICS ===> CICSPROD
  PROGRAM  PROGRAM  PROGRAM       0        1         2         3         4
  ADDRESS    NAME    LENGTH  LPA  12345678901234567890123456789012345678901234 5
  82AC0164 DFHIRP    25,752 EPLPA- aP &y&y& &y& &  V     S  Y          M      -
  81DDE830 DFHCSVC    2,000 EPLPA  0-     *DFHCSVC   Y I40.I
  82AC62C8 DFHSSEN   12,980 EPLPA  0AH    *DFHSSEN  AI   0      i0      &
  82844F60 DFHDSPEX     160 EPLPA  0 00  DFHDSPEX  92.016       j     uj
  82AC7020 DFHSSWT    4,408 EPLPA  00  DFHSSWT
  82AD33D8 DFHSSGC      952 EPLPA         0Cm       Cn    0    i0     &
```

Figure 268. Sample LPA Display

Usage Notes

Each line of the LPA Display shows a program currently loaded in an MVS LPA. The programs may or may not be in use by a CICS region.

This display allows you to identify programs to be used when CICS accesses LPA programs. The default display shows only CICS programs.

This is an excellent tool to use when determining if two MVS systems contain the same modules in the LPA. A program can be in more than one LPA.

Command Conventions

Format: **EXec LPa** ***aaaaaaaa bbbbbbbb***

where

aaaaaaaa Specifies the program at which to position the display.

When a qualifier character (+ or *) is used, the display is limited to a subset of program names.

When ***aaaaaaaa*** is omitted, MAINVIEW for CICS displays all CICS programs.

bbbbbbbb Specifies the type of program to be displayed.

***** or **CICS**
Only CICS programs (the default)

A or **ALL**
All programs

ABOVE
Only programs above the 16MB line

BELOW
Only programs below the 16MB line

MLPA

Only programs in the Modified Link Pack Area

EMLPA
Only programs in the Extended Modified Link Pack Area

FLPA
Only programs in the Fixed Link Pack Area

EFLPA
Only programs in the Extended Fixed Link Pack Area

PLPA
Only programs in the Pageable Link Pack Area

EPLPA
Only programs in the Extended Pageable Link Pack Area

CSA
Only programs in the Common System Area

ECSA
Only programs in the Extended Common System Area

Commands:	EXPAND	Provides a memory display of the selected entry address when you position the cursor on the line displaying a program (see Figure 273 on page 436).
	Locate	**L *aaaaaaaa bbbbbbbb***
	Scrolling	Is available.
Action Services:	None.	

TCB: Task Control Block Display

To display a list of the MVS task control blocks (TCBs) in a CICS region, select Option 9, **TCB**, from the Program Management Menu.

The TCB Display appears, as shown in Figure 269.

```
BMC SOFTWARE ------------------- TCBS DISPLAY ---------------- TIME: 02:10:11
COMMAND ===>                                                 CICS ===> CICSPROD
    TCB              CPU         TCB    RB     RB     INITIAL  ENTRY   PSW
  ADDRESS  STATUS   USAGE   PK  NAME   TYPE  ADDRESS  PROGRAM  POINT   ADDRESS
  007E6498 WAITING     .354 80          PRB 007F9CA0 DFHSIP   84965358 849674D8
  007F9880 WAITING     .000 80          PRB 007E6090 DFHTRTCB 849600D6 84960104
  007F95F0 WAITING    2.262 80 RO_SUBD  PRB 007E6148 DFHKETCB 84966EDA 84909324
  007D6BF8 WAITING     .000 80          PRB 007D6B70 DFHKETCB 84966EDA 84966F08
  007D60C0 WAITING     .125 80          PRB 007CDF98 DFHJCOCP 00429278 00429306
                                        PRB 007D6038 DFHJCTSK 00420614 00420662
  007C60F8 WAITING     .067 80          PRB 007CDF00 DFHSKTSK 00006178 000ED110
  007C7E88 WAITING     .138 80          PRB 007C7E00 DFHSKTSK 00006178 000ED110
  007D6E88 WAITING   38.851 80 QR_SUBD  PRB 007F9470 DFHKETCB 84966EDA 8490925C
  007C6D70 WAITING     .017 80          PRB 007CDE48 DFSDYA00 80438EC0 00080062
```

Figure 269. Sample TCB Display

Usage Notes

The TCB Display shows the MVS TCBs in use, which can have a significant influence on CICS performance. You can identify the number of TCBs generated for use by specific software products, such as DB2. You can then determine if there is an over- or under-allocation of TCBs for this region.

Command Conventions

Format: **EXec TCb** ***aaaaaaaa***

where

aaaaaaaa Specifies if the general purpose register save area is to be displayed.

***** or **NOREGS**
Do not display the general purpose register save area (the default).

R or **REGS**
Display the register save area.

Commands:

EXPAND	Displays the contents of selected TCB addresses when you position the cursor on the line displaying the TCB (see Figure 273 on page 436).
Locate	**L** ***aaaaaaaa***
Scrolling	Is available.

Action Services: None.

Chapter 16. STORAGE Option

To display the CICS Storage and Display menu, as shown in Figure 270, either

- Select Option 5, **STORAGE**, from the Primary Option Menu
- Select **Control Block Menu** from the EZCFAST view in windows mode

```
BMC SOFTWARE ------------ CICS STORAGE AND DISPLAY ------------ TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD


Locate CICS Module or Control Block
 1   Module Name   ===>            CICS or Application Program Name
 2   DCT ENTRY     ===>            Destination ID for specific Entry
 3   FCT ENTRY     ===>            File Name for specific Entry
 4   PCT ENTRY     ===>            Transaction ID for specific Entry
 5   PPT ENTRY     ===>            Program Name for specific Entry
 6   TCT ENTRY     ===>            CICS Term ID / Node Name for specific Entry
 7   CICS CSA                      CICS Common Storage Area
 8   CICS PAM      ===>            Unformatted Page Allocation Map
                                   Select CDSA, UDSA, ECDSA, EUDSA or ERDSA
 9   CICS Subpool  ===>            Formatted Page Allocation Map
                                   Select CDSA, UDSA, ECDSA, EUDSA or ERDSA
 10  CICS SCA                      CICS Storage Control Areas
 11  CICS ABEND                    Program Check and Abend Trace Table
 12  Other         ===>            Other CICS, DL/I, or MVS Control Blocks
Display CICS Virtual Storage
 13  Address       ===>            Specific Address to Display
```

Figure 270. CICS Storage and Display Menu

Note: Option 8, CICS PAM, provides select CDSA, ECDSA, UDSA, EUDSA, SDSA, ESDSA, RDSA, and ERDSA options for CICS/ESA Release 4.1 users.

This menu allows you to access information on specific CICS modules. Options 1 through 6 and Option 12 are selected by typing the option number on the command line, along with a specific entry. For example, 1 can be specified on the command line and either a CICS or application program can be specified in the Module Name field. When you press Enter, MAINVIEW for CICS displays the virtual storage where the program resides.

When the required entry is not known, specify the option and press the Enter key. Using the above example:

1. On the **COMMAND** line, type **1** and press Enter.

   MAINVIEW for CICS displays a listing of available nucleus modules.

2. Specify a module to be viewed or press Enter to display EXEC interface modules and make your selection.

3. Press Enter to return to the CICS Storage and Display menu.

Options 2 through 6 display the beginning of each CICS table. Specifying one of these options with a particular entry name displays that entry name within the table.

Options 7 through 11 enable you to view a particular storage area. Just specify the option number on the command line and press Enter.

Note: Option 11, CICS ABEND, is the same as Option 11, ABEND, on the System Status Menu. For a description of the ABEND service, see "ABEND: Program Check and Abend Trace Table" on page 376.

Option 12 can be used to display control blocks (CICS, DL/I, and MVS) supported by MAINVIEW for CICS. The control block name can be specified in the Option 12 field. To obtain a list of available control blocks, select Option 12 and leave its field blank.

Option 13 requires identifying the address location at which virtual storage in CICS resides. To view virtual storage, type in the address location and press Enter.

Option 9, CICS Subpool, Option 10, CICS SCA, and Option 13, CICS Virtual Storage, are described further in the following sections. The description of each option includes

- EXEC command format
- Further explanation of some of the commands
- Available action services

SUBPOOL: Storage Subpool Usage Statistics

To display CICS storage subpool usage statistics, together with a map of the CICS dynamic storage area (DSA), or the CICS Extended Dynamic Storage Area (EDSA), select Option 9, **CICS Subpool**, from the CICS Storage and Display Menu.

The Subpool Display appears, as shown in Figure 271.

```
BMC SOFTWARE ------------ SUBPOOL DISPLAY -------------------- TIME: 09:32:10
COMMAND ===>                                                CICS ===> CICSPROD
   CDSA  CURRENT ----------------- GENERAL SUBPOOL AREAS ---------------------
   PAGES  UNUSED SYSTEM   TERM   APPL   FILE  QUEUE   PROG DB/DLI   USER   MISC
     500     384     98      1      2      0      2      0      1     11      1
  PERCENT   76.8   19.6    0.2    0.4    0.0    0.4    0.0    0.2    2.2    0.2
  LOW-WATER MARK FREE:   381   CUSHION SIZE:    64      TIMES WENT SOS:     0
  TOTAL STORAGE AVAILABLE:      668           LARGEST FREE SEGMENT:      668

  -STARTS- ----- PAGE ALLOCATION BIT MAP - (P.A.M.) - ONE BYTE PER PAGE ----
  0003B000  SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSAS_AQQUSUDMUSUUS_US_USU_
  0007B000  _TUUUSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS_______
  000BB000  ________________________________________________________________
  000FB000  ________________________________________________________________
  0013B000  ________________________________________________________________
  0017B000  ________________________________________________________________
  001BB000  ________________________________________________________________
  001FB000  ________________________________________________
  ***************************** END OF DATA ***********************************
```

Figure 271. Sample SUBPOOL Display

Usage Notes

An address display is available for each storage page.

Each underscore character in the page allocation bit map represents one storage page in the DSA, or EDSA, that is not currently in use:

- When a page is in use by a subpool, the underscore is replaced by the first letter of the subpool using the page; for example, a P indicates that the page is in use by the program subpool. (Subpools are identified across the top of the display.)
- The 80-plus storage subpools are categorized into 9 subpool classes.

Command Conventions

Format: **EXec Subpool *aaaaa***

where

aaaaa Specifies what storage to display. The possible values are:

blank	Displays the CDSA
CDSA	Displays the CICS Dynamic Storage Area (CDSA)
RDSA	Displays the Read-Only Dynamic Storage Area (RDSA)
SDSA	Displays the Shared Dynamic Storage Area (SDSA)
UDSA	Displays the User Dynamic Storage Area (UDSA)
ECDSA	Displays the Extended CICS Dynamic Storage Area (ECDSA)
ERDSA	Displays the Extended Read-Only Dynamic Storage Area (ERDSA)
ESDSA	Displays the Extended Shared Dynamic Storage Area (ESDSA)
EUDSA	Displays the Extended User Dynamic Storage Area (EUDSA)

Commands: **EXPAND** Provides a memory display of the address represented by a character on the map of the Dynamic Storage Area when you position the cursor on the character. Expanding from this display shows the appropriate subpool for the selected DSA.

Locate **L *aaaaa***

Scrolling Is available.

Action Services: None.

SCA: Storage Control Areas

CICS storage allocations use the storage control area (SCA) to control the allocation of memory. To display the SCA control blocks in use by a CICS region, select Option 10, **CICS SCA**, from the CICS Storage and Display Menu.

The SCA Display appears, as shown in Figure 272.

```
BMC SOFTWARE ------------ SCAS DISPLAY ------------------------ TIME: 12:31:44
COMMAND ===>                                                 CICS ===> CICSPROD
                        TOTAL    TOTAL   CURRENT   H-W-M
  SCA ADDR SCA NAME  GETMAIN FREEMAIN  STORAGE  STORAGE   DSA   CLASS  CHAIN ID
  09AEE390 AITM_TAB       32        0      20K      20K  ECDSA  TERM    NO   7D
  09AF30D0 AP_AFCTE        0        0       4K       4K  ECDSA  FILE    YES  77
  09A789C0 APECA           0        0       4K       4K  UDSA   SYSTEM  NO   2A
  09A78650 APEISTAC       12       12       4K       4K  ECDSA  APPL    NO   25
  09A78910 APICAD31      581      581       4K       4K  ECDSA  SYSTEM  NO   29
  09A78440 APLLASYS        2        0       4K       4K  ECDSA  SYSTEM  NO   22
  09A78390 APRSAQCL        0        1       4K       4K  ECDSA  APPL    NO   21
  09A5CBD0 DFHAPDAN       11       11     116K     116K  ECDSA  APPL    NO   16
  09A5CB20 DFHAPD24        0        0       8K       8K  CDSA   APPL    NO   15
  09A79860 DFHTDG24        0        0       4K       4K  CDSA   QUEUE   NO   3B
  09A79910 DFHTDG31        0        0       4K       4K  ECDSA  QUEUE   NO   3C
  09A79B20 DFHTDIOB        0        0      12K      12K  ECDSA  QUEUE   NO   3F
```

Figure 272. Sample SCA Display

Usage Notes

The SCA service can be used to monitor the number of storage allocations and the amount of storage currently in use by a subpool.

Each SCA has a name to identify the program that requested a storage allocation. This can be helpful in identifying subpools that are using excessive amounts of storage.

Command Conventions

Format: **EXec SCA *aaaaaaaa bbbbbbb***

where

aaaaaaaa Is a CICS SCA name. By default, the SCA service positions the entered name at the top of the display. When ***aaaaaaaa*** contains wildcard characters (+ or *), matching names are displayed; for example,

EXEC SCA SM*

displays only subpool names starting with the characters SM.

bbbbbbb Specifies a numeric value representing the minimum storage value to select an SCA for display. This field can also be any of the following:

***** or **ALL**	All SCA that have been used
S or **SYSTEM**	Only system class entries

T or **TERM**	Only terminal class entries
A or **APPL**	Only application class entries
F or **FILE**	Only file class entries
Q or **QUEUE**	Only queue class entries
P or **PROG**	Only program class entries
D or **DB/DLI**	Only database class entries
U or **USER**	Only user class entries
M or **MISC**	Only miscellaneous class entries
C or **CDSA**	Any entries in the CDSA
UD or **UDSA**	Any entries in the UDSA
R or **RDSA**	Any entries in the RDSA
SD or **SDSA**	Any entries in the SDSA
EC or **ECDSA**	Any entries in the ECDSA
EU or **EUDSA**	Any entries in the EUDSA
ER or **ERDSA**	Any entries in the ERDSA

Commands:

Find *text*

Specifies that storage be scanned forward from the starting position to locate and display the virtual storage location where the matching text is found. Up to 256K of virtual storage can be scanned in a search request.

Text can be a single word (KLMN), a character string in quotation marks ('*DFHFCP'), or a hex value (X'00'). When text is not entered, the text from the previous find is used.

To indicate that the search should continue backward through storage, PREVIOUS can be specified after the text.

EXPAND

Expands to the DUMP service to display the contents of the SCA in memory.

Note that the offset shown is from the origin address.

Locate *noteid*

Specifies that the display position previously remembered by the ***noteid*** be recalled and located.

This is treated as a scroll to the address; thus, the END key does not return you to the display from which you issued the LOCATE command.

Note *noteid*	Specifies that the display position be remembered by the ***noteid*** given. That display position can then be recalled and returned to by the LOCATE command. Notes are maintained for a given user and are not maintained across sessions.
Scrolling	Is available.

Action Services: None.

DUMP: Virtual Storage

To display the contents of CICS virtual storage, select Option 13, **Address**, from the CICS Storage and Display Menu.

An example of the DUMP Display is shown in Figure 273.

```
BMC SOFTWARE ------------------ DUMP DISPLAY ------------------ TIME: 12:31:44
COMMAND ===>                                                  CICS ===> CICSPROD

  ADDRESS   OFFSET |.0.1.2.3 .4.5.6.7 .8.9.A.B .C.D.E.F | CHARACTER-FORMAT     |
  0064F7C0  +00000  00000000 00005F80 00005754 5064A666   ......¬.....&...
  0064F7D0  +00010  00000000 00000001 9064A196 00651230   ................
  0064F7E0  +00020  0064FFC8 00649358 0064A358 0000EAA8   ...H...........
  0064F7F0  +00030  0001BBC8 0001BB60 005B51B0 00000000   ...H...-.$......
  0064F800  +00040  005F9EB0 705ECC4A 0010099C 00650238   .¬...;.\........
  0064F810  +00050  1018352F 0003CBC0 07D00100 00000000   ................
  0064F820  +00060  0038A220 00003C00 807FF020 000080FD   ........."0.....
  0064F830  +00070  00020000 00006000 0065E000 0090066F   ......-........?
  0064F840  +00080  00651130 E2FFFFFE 00000258 006527A0   ....S...........
  0064F850  +00090  00000004 00000000 00026030 E738C617   ..........-.X.F.
  0064F860  +000A0  00000000 000289C0 00028B80 00028AA0   ................
  0064F870  +000B0  00028950 0064FFC8 00650238 C500FF00   ...&...H....E...
  0064F880  +000C0  001E0002 00000400 0064FBC0 03E803E4   .............Y.U
  0064F890  +000D0  00000000 00000000 807FF020 00000000   ........."0.....
  0064F8A0  +000E0  4064750C 005F7090 005E3A70 0063EC80    ....¬...;......
  0064F8B0  +000F0  005BC80C 005FA448 005AA7C4 005D1F08   .$H..¬...!.D.)..
  0064F8C0  +00100  005D5994 00000000 005B5774 005A08B8   .).......$...!..
  0064F8D0  +00110  00000000 00644644 01637F10 005A3B90   ..........."..!..
  0064F8E0  +00120  00000000 00000000 005F9EB0 005DAAA0   .........¬...)..
  0064F8F0  +00130  005D1C28 004A7B78 00027800 00651C28   .)...\#.........
```

Figure 273. Sample DUMP Display

Usage Notes

You do not have to shut the system down or take a snap dump before displaying virtual storage with the DUMP service.

The DUMP service allows you to display virtual storage from the following:

- CICS partition
- CICS region
- DL/I
- User programs

Virtual storage can be modified in full-screen edit mode by overtyping the HEX or character data shown at an address displayed by the DUMP service. All alterations are recorded on the system console.

Note: Because of the implications of altering virtual storage, granting user access to the DUMP service should be considered carefully.

Command Conventions

Format: **EXec DUmp *aaaaaa bbbbbbb***

where

aaaaaa Specifies the address or program name to be displayed.

bbbbbbb Specifies a + or - offset such as +001F0.

When ***aaaaaa*** is the name of a CICS table, ***bbbbbbb*** can be specified as a table entry; for example,

EXEC DUMP DFMPCT CEMT

Commands:

DUMP *address* Provides two options:

- You can overtype the first Address field with a different address, and the corresponding Offset field with a different offset.
- You can modify only the first Offset field, which means that you scroll from the starting address to that offset.

Find *text* Specifies that storage be scanned forward from the starting position to locate and display the virtual storage location where the matching text is found. Up to 256K of virtual storage can be scanned in a search request.

Text can be a single word (KLMN), a character string in quotation marks ('*DFHFCP'), or a hex value (X'00'). When text is not entered, the text from the previous find is used.

To indicate that the search should continue backward through storage, PREVIOUS can be specified after the text.

EXPAND When you position the cursor on any address shown on the DUMP display (in either the Address column or the Hexadecimal Format columns), provides a memory display of that address.

Note that the offset shown is from the original address.

Locate *noteid* Specifies that the display position previously remembered by the ***noteid*** be recalled and located.

This is treated as a scroll to the new address; thus, the END key does not return you to the display from which you issued the LOCATE command.

Note *noteid*	Specifies that the display position be remembered by the ***noteid*** given. That display position can then be recalled and returned to by the LOCATE command. Notes are maintained for a given user and are not maintained across sessions.
Scrolling	Is available.

Action Services: None.

Chapter 17. CYCLE SETUP Option

When you select Option C, **CYCLE SETUP**, from the Primary Option Menu, the Service Refresh Cycle panel appears, as shown in Figure 274. This panel can be used to set up a maximum of 30 display services for timed, cyclic refresh.

Any of the Performance, Graph, or Operation services, as well as the log display, can be placed in cycle mode.

Services and parameters can be defined for a refresh cycle using CYCLE SETUP or they can be predefined in a BBPROF data set member and invoked as needed. The member names can be unique or have a 3-character prefix of CYC.

Service Refresh Cycle Panel

Figure 274 shows the Service Refresh Cycle panel for setting up cyclic refresh using the CYCLE SETUP option. Descriptions of this application and the BBPROF member follow the sample display.

```
BMC SOFTWARE  ------------- SERVICE REFRESH CYCLE -------- GENERAL SERVICES
COMMAND ===>                                    TGT ===> CICSPROD
                                        PAGE    1  OF  1
                TARGET   TYPE    DTIME  LOG   DESCRIPTION
SERVICE ===> MFSUT    IMSPROD  IMS      3        MFS POOL UTILIZATION
  PARMS ===>
SERVICE ===> DB2ST    DB2A    DB2      3        DB2 SYSTEM STATUS
  PARMS ===>
SERVICE ===> DA       SYSA    MVS      3        DISPLAY ACTIVE
  PARMS ===>
SERVICE ===> FILE     CICSPROD CICS    5        FILE DISPLAY
  PARMS ===> * OPEN
SERVICE ===> CAOSTAT   CICSP    CICS     3        SYSTEM STATUS
  PARMS ===>
SERVICE ===>
  PARMS ===>
SERVICE ===>
  PARMS ===>
SERVICE ===>
  PARMS ===>
SERVICE ===>
  PARMS ===>
SERVICE ===>
  PARMS ===>
```

Figure 274. SERVICE REFRESH CYCLE Data Entry Display

The input fields are:

SERVICE> Is the MAINVIEW for CICS service name.

PARMS> Are the applicable parameters for the specified service, separated by spaces.

TARGET Is a 1- to 8-character identifier of a target. If TARGET and TYPE are not specified, the target displayed in the TGT field is used. If TARGET is not specified but TYPE is, the current target for the specified product line is used.

TYPE Is the type of product line that processes the requested service. A product line type (MVS, IMS, CICS, or DB2) does not need to be entered when only one product line is installed. When a product line is not specified, the active product line is used. When multiple product lines are installed, a product line type must be specified if the requested service does not belong to the active product line.

DTIME Is the number of seconds that the specified service display is to be shown before the next display. If a time is not entered, the default specified by the INTERVAL parameter in the BBPROF data set member BBITSP00 is used and displayed in the DTIME field. The distributed value is three seconds. Thus, when the maximum of 30 services is specified, each with a display time (DTIME) of 3 seconds, the first service in the refresh cycle is displayed approximately every 90 seconds.

LOG For MAINVIEW for DB2 and MAINVIEW for IMS services, values Y (YES) and N (NO) specify whether to log screen images to the TS Image log for offline printing. The default, N, is displayed if no entry is made. For other services, a dash indicates that Image Logging is not supported.

The following MAINVIEW for CICS service names are valid in a Cycle Request. Capital letters must be entered exactly as shown. If other BBI-based products are installed, those services can also be invoked from Cycle Refresh. Refer to the product-specific customization guide for details.

ABend DB2Task File PPST Task
AId DDir FILEXpnd Problem TCbs
CLAsses DDIRXpnd FILEXPN2 PRogram TEMPstrg
Connect DDIRXPN2 GRAPH PSBname TEMPXpnd
CONNXpnd DEst Ice REGions TErminal
CONNXPN2 DL/i Journal REMotes TERMXPnd
CONSoles DL/1 LPas REView TIot
CSTatus DSAs Monitor SHare TRan
DAtatabl DSnames NUCLeus STatus TRANXpnd
DBCTAsk ENqueue PLan Subpool TSut
DBCtl EXIts PLANXpnd SUFfixes Vtam
DB2Sysp SUMmary

Note: Either CSTATUS or STATUS is valid for the Status Display.

Pressing the Enter key validates the specified services and displays the values in the input fields of the SERVICE REFRESH CYCLE application. Any of the values can be changed by typing the new values into the input fields and pressing Enter.

Pressing the GO key (PF6/18) starts a refresh cycle, as described in “Starting and Stopping the Service Refresh Cycle” on page 443.

Note: If other MAINVIEW products are installed at your site, their services and target types (IMS, DB2, MVS) can be intermixed with these requests.

BBPROF Predefined Refresh Cycle Member

A refresh cycle that is commonly used can be predefined in a member of the BBPROF data set. The member name, preceded by a SELECT, is used to invoke the refresh cycle on the command line. The member can be named

- A meaningful 1- to 8-character member name, such as MTODMIN or OPERATOR.

  Note: The name cannot be the same as a MAINVIEW application transfer command.

- CYC*xx*

  where *xx* can be any two alphanumeric characters.

The keywords to define a refresh cycle in the member are

SERV= Specifies a service select code; for example, SERV=TASK.

INTVL= Specifies the time in seconds (1 to 99) that the service is to be displayed before the next one is shown.

TARGET= Specifies the identifier of the CICS system that is the target for the service. If an identifier is not specified, the target displayed in the TGT field is used.

OPT= Specifies the service parameter(s). A valid statement

- Can be written within single quotation marks

  Multiple parameters (maximum of 60 characters) can be specified in a statement enclosed in single quotation marks. Statement parameters can be separated by blanks.

- Can be written without single quotation marks

  If single quotation marks are not used, a statement terminates with the last parameter or a comma. Multiple parameters (maximum of 60 characters) can be specified in the statement. Each parameter can be separated by blanks.

LOG= For MAINVIEW for DB2 and MAINVIEW for IMS only, specifies either Y (YES) or N (NO) to log the display to the TS Image log. N is the default.

For example, the services defined for a refresh cycle in Figure 274 on page 439 could be defined in a BBPROF member, as follows:

```
* SAMPLE CYCLE SETUP MEMBER
*
* IMS DISPLAY MFS UTILIZATION
*
SERV=MFSUT,TYPE=IMS,INTVL=3
*
* DB2 SYSTEM STATUS
*
SERV=DB2ST,TYPE=DB2,INTVL=3
*
* MVS ACTIVE DISPLAY
*
SERV=DA,TYPE=MVS,INTVL=5
*
* CICS OPEN FILE DISPLAY
*
SERV=FILE,OPT=* OPEN,TYPE=CICS,INTVL=3
*
```

Figure 275. Sample Cycle Setup Member

The BBPROF member is selected by typing its name with a SELECT or SET command on the command line of the SERVICE REFRESH CYCLE application.

- SELECT can be used to select a 1- to 8-character BBPROF member name across product lines.
- SELECT allows meaningful names to be defined and is the recommended method for invoking a BBPROF member.
- SET can be used to specify the suffix of a CYC BBPROF member.

Following are examples of SELECT and SET use that show the syntax of each command.

SELECT Command

To invoke the BBPROF member from the Service Refresh Cycle display, use the following SELECT command:

Select *member*.

If the ***member*** is 1- to 8-characters, it is invoked by its full name; for example,

COMMAND ===> SELECT CYCMEMBR

SET Command

If the member name is CYCxx, the member can be invoked by using the following SET command:

SET *xx*

where ***xx*** is an alphanumeric suffix for CYC.

Pressing Enter displays the SERVICE REFRESH CYCLE application with the BBPROF member specifications.

Any of the values shown in the input fields can be changed. Pressing the GO key (PF6/18) starts the cycle, as described in "Starting and Stopping the Service Refresh Cycle" on page 443.

Note: MAINVIEW for CICS provides BBPROF members CMRCYC01, CMRCYC02, and CMRCYC03 as samples for cycle setup definitions.

SAVE Command

Once a group of services is defined using the CYCLE SETUP application, the definition can be saved in the BBPROF data set by issuing

SAVE *xx*

where ***xx*** is an alphanumeric suffix for CYC, or

SAVE *member*

where ***member*** is any 3- to 8-character alphanumeric member name.

Starting and Stopping the Service Refresh Cycle

Pressing the GO key (PF6/18) starts the cycle. The attention interrupt key (ATTN for SNA terminals and PA1 for non-SNA terminals) stops the cycle. When the cycle stops, the SERVICE REFRESH CYCLE application displays the service names, parameters, and any short messages for the cycled services. (Short message explanations can be viewed with Option M; for more information refer to "MESSAGES Option" on page 451).

Each refreshed service display is shown in the sequence and time (DTIME) specified. For the example in Figure 274 on page 439, the TASK application is displayed first, followed by PROBLEM and SUMMARY. The cycle repeats again, starting with TASK, until it ends with the pressing of the attention interrupt key, which displays the SERVICE REFRESH CYCLE application.

Chapter 18. LOG DISPLAY Option

The MAINVIEW for CICS Log Display presents the BBI-SS PAS journal log belonging to

- The BBI-SS PAS associated with the CICS system identified in the TGT field.
- The BBI-SS PAS when the BBI-SS PAS ID is specified in the TGT field.
- The TS when LOCAL is specified in the TGT field.

The identifier in the TGT field can be changed to point to any valid CICS system, any valid BBI-SS PAS, or to LOCAL.

The Log Display includes all messages and commands for the target system. It can be selected by

- Selecting Option L, **LOG DISPLAY**, from the Primary Option Menu
- Entering the LOG command while in any MAINVIEW for CICS application
- Pressing the LOG key (PF17)

Log Display

A sample Log Display is shown in Figure 276.

```
BMC SOFTWARE ------------------- LOG DISPLAY ---------------- GENERAL SERVICES
COMMAND ===>                                                  TGT ===> CICSPROD
LINE=      11,387  LOG= #1   STATUS= INPUT    TIME= 09:11:31 INTV===> 3
 09:09:47  IM2907I  AUTOBLK 'SET' CMRBLK2  FOR CMRLCIC  ISSUED
 09:09:47  IM2907I  AUTOBLK 'SET' CMRBLK2  FOR CIC70CSR ISSUED
 09:09:47  IM2907I  AUTOBLK 'SET' CMRBLK2  FOR CICS1611 ISSUED
 09:09:47  IM2907I  AUTOBLK 'SET' CMRBLK2  FOR CICS2102 ISSUED
 09:09:47  IM2907I  AUTOBLK 'SET' CMRBLK2  FOR CICSPROD ISSUED
 09:09:47  IM2907I  AUTOBLK 'SET' CMRBLK2  FOR CICS1702 ISSUED
 09:09:47  IM2907I  AUTOBLK 'SET' CMRBLK2  FOR CICS1701 ISSUED
 09:09:47  LM3802I  OPEN FAILED BBIPJ21 ACBERR=5A
 09:09:47  PM2301I  BBI JOURNAL(1) SELECTED FOR USE
 09:09:47  SS0975I  BBI/SS -PJ21- COLD START COMPLETE
 09:09:47  PM0010I  BBI/PM INITIALIZATION COMPLETE
 09:09:47  CICSTART CICSPROD STARTED
 09:09:47  CICSTART CICS21CS STARTED
 09:09:47  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:47  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMRL
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:48  IM0942I  SET BLK=CMRBLK2  ISSUED BY USER CMR7
 09:09:56  CICSTART CICS1701 STARTED
 09:10:00  FT424W   NOT A VALID CICS
 09:10:00  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:00  FT058I   HIGHEST NUMBER OF ACTIVE TASKS WAS _____4          > 0
 09:10:01  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:01  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:02  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:02  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:02  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:03  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:03  FT420E   SERVICE FAILED -JOB NOT FOUND
 09:10:18  FT425W   CICS INITIALIZING
 09:10:18  FT424Z   NOT A VALID CICS
 09:10:33  XS6304I  BBI/SESSION FOR -CMR7X   - TO -PJ21- INITIATED
 09:11:00  FT058I   HIGHEST NUMBER OF ACTIVE TASKS WAS _____2           > 0
 09:11:00  FT425Z   CICS INITIALIZING
```

Figure 276. Sample Log Display

The Log Display is a window to the BBI-SS PAS Journal log data set. The window template displays the following fields:

LINE= n Is the number of the first line of the log being displayed.

LOG= #n Is the number of the Journal being displayed. There are two online BBI-SS PAS Journal log data sets.

STATUS= Is the application mode. It can be INPUT for data entry or RUNNING for screen refresh.

- INPUT
  - Data can be entered only when LOG DISPLAY is in INPUT mode.

- Commands can be entered on the command line.
- A new target CICS system can be entered in the TGT field.
- A refresh interval can be entered in the INTV field.

To change the application status mode from INPUT to RUNNING (refresh mode), press the GO key (PF6/18).

- RUNNING

  Screen refresh is indicated by the message, RUNNING. To exit refresh and enter input mode, press ATTN (SNA terminal) or PA1 (non-SNA terminal).

TIME= Is the time at which the Log Display was requested.

INTV Is the screen refresh interval in seconds. The value can be from 1 to 99 seconds. The default is the INTERVAL parameter value in the distributed BBPROF data set member BBITSP00. Start screen refresh by pressing the GO key (PF6/18) or by typing **GO** on the **COMMAND** line.

When the application is entered, the window is positioned to show the most recent messages. The following BBI-SS PAS Journal log data is displayed:

- The timestamp of the message or command
- The message source identifier data
- The message text, which includes
  - All BBI commands and responses issued on behalf of the TS users assigned to the BBI-SS PAS
  - All commands and responses issued automatically by BBI EXECs, if an AutoOPERATOR is installed
  - Timestamps for BBI-SS PAS start and stop and target system start and stop
  - MAINVIEW for CICS monitor and exception warning messages
  - BBI informational and error messages

The identifier data is not displayed when the Log Display is entered initially. To view the source identifier data, move the Log Display to the left with the LEFT key (PF10/22).

The Log Display highlights every command recorded in the BBI-SS PAS Journal log.

Note: For any commands that are issued with a user password, a ? replaces the password in the logged command.

PF scroll keys or a Log Display primary command move the Log Display window through the BBI-SS PAS Journal.

Scroll Commands for the Log Display

The Log Display scroll commands operate like the equivalent ISPF scroll commands.

- Up and Down Scrolling

  Scroll amount Is the number of lines of data to be moved and is typed on the **COMMAND** line of the Log Display. The UP key (PF7/19) or the DOWN key (PF8/20) specifies the direction.

Enter in the COMMAND field:		Press PF7/19 to Scroll:	Press PF8/20 to Scroll:
M or MAX	Maximum	to the top	to the bottom
1 to 9999	A number	n lines up	n lines down
H	Half	half page up	half page down
P	Page	full page up	full page down

  Top and Bottom Scrolls to the top or the bottom of the data. Type the TOP command or BOTtom command on the **COMMAND** line and press Enter

- Left and Right Scrolling

  Left scrolling Scrolls left the specified amount. Type the number of columns to be scrolled on the **COMMAND** line and press PF10/22. The default is 21 columns.

  Note: Left scrolling shows data that identifies the source of the message.

  Right scrolling Scrolls right the specified amount. Type the number of columns to be scrolled on the **COMMAND** line and press PF11/23. The default is 21 columns.

Primary Commands for the Log Display

Primary commands unique to the Log Display locate data anywhere in the BBI-SS PAS Journal log or in the refresh Log Display.

- **L (LOCATE LINE)**

  Moves the specified line to the top of the display. When the Log Display is requested initially, the most recent log entries fill the screen. The LINE= field shows the line number for the first of these entries.

Syntax	Example
L *n*	L 13

- **F (FIND CHARACTERs)**

  Finds an alphanumeric character or string of characters in the Log Display. The search can be started backward from the first displayed line (PREV) or started forward from the first displayed line of the Journal log (FIRST). Pressing the PF5/17 key repeats the FIND command.

Syntax	Example
F *c*	F x
F *'c...c'*	F 'LSNA'
F *'c...c'* FIRST	F 'LSNA' FIRST

- **T (FIND TIME)**

  Finds a specific time in the Journal log for the current date.

Syntax	Example
T *hh:mm:ss*	T 11:30:00
T *hh:mm*	T 11:30
T *hhmm*	T 1130
T *hh*	T 11

- **GO (REFRESH LOG DISPLAY)**

  Refreshes the Log Display in the number of seconds specified in the INTV field. The ATTN key (on an SNA terminal) or PA1 key (on a non-SNA terminal) can be used to return to INPUT mode for data entry.

  Note: Alternatively, you can use the GO key (PF6/18) to refresh the Log Display.

- **PROFILE**

  Provides access to the Enhanced Journal Facility, which offers user-customizable views of the Log Display. It allows you to view subsets of the Journal log defined by one or more message origins.

  This command displays an input panel where you can define which messages you want to see. You can specify up to six patterns for message origins to be included and six patterns for message origins to be excluded in the display. Generic qualifiers can be used to define these patterns. For example, you can include all messages from CICS* and exclude all messages from CICSTEST, as shown in Figure 277.

```
BMC Software ------------------ Log Display ----------------- General services
COMMAND ===>
                                                                Date --- 97/09/08
 Included Origins            Excluded Origins                   Time --- 10:00:11

  CICS*___                      CICSTEST
  ________                      ________
  ________                      ________
  ________                      ________
  ________                      ________
  ________                      ________
```

Figure 277. Define a Subset of Messages with the PROFILE Command

The PROFILE specifications are saved in userid.BBPROF member LDPARM00. This enables each user to have an individual application profile.

You also can include messages from the current target specified in the TGT field by specifying the variable, &target, in the Included Origins column, as shown in Figure 278 on page 452.

```
BMC Software ------------------- Log Display ---------------- General services
COMMAND ===>
                                                                Date --- 97/09/08
 Included Origins            Excluded Origins                   Time --- 10:05:18

  &TARGET_                      ________
  ________                      ________
  ________                      ________
  ________                      ________
  ________                      ________
  ________                      ________
```

Figure 278. Include Messages from the Current Target

Figure 279 shows the Enhanced Journal Facility output produced from the profile specified in Figure 278. It displays only those messages from target DB2F.

```
BMC Software ----------------- Log Display -------------- General services
COMMAND ===>                                                TGT ===> DB2F
Line        3,913  Log  #1   Status  INPUT    Time  10:33:25 INTV===> 3
15:57:01  DW0120W  (02) 15:57:00 AVG ELAPSED TIME(TRANS) = 99.882  (>5.000) ***
15:58:00  DW0121I   15:58:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
15:58:00  DS0541I   15:58:00 CSA PAGING(TOTAL) NO LONGER > 1800
15:59:00  DW0120W  (01) 15:59:00 AVG ELAPSED TIME(TRANS) = 99.690  (>5.000) ***
16:00:08  DW0121I   16:00:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
17:01:02  DS0540W  (01) 17:01:00 CSA PAGING(TOTAL) = 2599 IN 01:00 MIN (>1800)
17:02:00  DS0540W  (02) 17:02:00 CSA PAGING(TOTAL) = 2530 IN 01:00 MIN (>1800)
17:03:00  DS0540W  (03) 17:03:00 CSA PAGING(TOTAL) = 2341 IN 01:00 MIN (>1800)
17:04:00  DS0541I   17:04:00 CSA PAGING(TOTAL) NO LONGER > 1800
18:19:00  DS0540W  (01) 18:19:00 CSA PAGING(TOTAL) = 2185 IN 01:00 MIN (>1800)
18:20:00  DS0541I   18:20:00 CSA PAGING(TOTAL) NO LONGER > 1800
19:18:00  DS0540W  (01) 19:18:00 CSA PAGING(TOTAL) = 2251 IN 01:00 MIN (>1800)
19:19:00  DS0541I   19:19:00 CSA PAGING(TOTAL) NO LONGER > 1800
19:31:00  DW0120W  (01) 19:31:00 AVG ELAPSED TIME(TRANS) = 101.138  (>5.000) **
19:32:00  DW0120W  (02) 19:32:00 AVG ELAPSED TIME(TRANS) = 99.313  (>5.000) ***
19:33:00  DW0121I   19:33:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
19:34:00  DW0120W  (01) 19:34:00 AVG ELAPSED TIME(TRANS) = 99.200  (>5.000) ***
19:35:00  DW0121I   19:35:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
19:36:00  DW0120W  (01) 19:36:00 AVG ELAPSED TIME(TRANS) = 99.200  (>5.000) ***
19:37:00  DW0120W  (02) 19:37:00 AVG ELAPSED TIME(TRANS) = 99.170  (>5.000) ***
19:38:00  DW0121I   19:38:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
```

Figure 279. View Messages from the Current Target

To view the origin of the messages in the Log Display, scroll to the left.

Note: You must specify JOURNAL=ENHANCED in BBPARM member BBISSP00 for the target BBI-SS PAS for the PROFILE specifications to take effect.

The PROFILE specifications are not active for a target of LOCAL.

Chapter 19. Miscellaneous General Services Options

In addition to the CYCLE SETUP and LOG DISPLAY options, there are general services options that enable you to

- Display MAINVIEW for CICS messages and codes
- Display your current PF key assignments
- Display the MAINVIEW for CICS online tutorial
- Terminate the BBI terminal session (TS)

MESSAGES Option

When you select Option M, MESSAGES, from the Primary Option Menu, a scrollable list of MAINVIEW for CICS error messages and ABEND codes appears. You can select any message or code with an S line command to produce a complete description that includes

- The reason the message was issued
- The system action to be taken
- The user action that should be taken
- The name of the module of origin

When messages, such as Write-to-Operators (WTOs), are written to the MVS console, the BBI-SS PAS ID is appended whenever possible.

All messages and codes for all BBI-SS PAS-based products, including offline products, are in this list. Short messages are listed in alphabetic order before the numbered messages and codes. (Short messages are displayed either in the Service Refresh Cycle display or in the upper right corner of the other service applications.)

Use the L command to locate a specific message number. For example, L FT locates the first message beginning with the characters FT and moves it to the top of the display.

Note: L cannot be used to locate a short message.

The messages are obtained from the BBMLIB data set. This data set can be browsed if a TS is not available. When user messages are added to the BBMLIB data set, they must be prefixed with an @ sign.

KEYS Option

When you select Option K, KEYS, from the Primary Option Menu, a list of the current program function (PF) key assignments appears.

TUTORIALS Option

When you select Option T, TUTORIALS, from the Primary Option Menu, the MAINVIEW for CICS online tutorials are invoked. The tutorials can also be requested by pressing the Help

key (PF1/13) from the Primary Option Menu. The tutorials are a set of menus and panels that describe the MAINVIEW for CICS menu options, applications, and commands. They operate in the same manner as ISPF tutorials.

EXIT Option

When you select Option X, EXIT, from the Primary Option Menu, the BBI Terminal Session (TS) is terminated. There are two other ways to terminate the TS:

- Press the END key (PF3/15) from the Primary Option Menu.
- Type **=X** on the **COMMAND** line of any MAINVIEW for CICS display.

Return To INITIAL Display

If you want to return to the initial MAINVIEW for CICS or BBI main menu, you can type INIT on the **COMMAND** line of any MAINVIEW for CICS display. This is useful if you are stacked deeply in MAINVIEW for CICS displays and want to return to the main menu quickly. You can also return to the main menu by typing an equal sign (=) on the **COMMAND** line.

Appendix A. Cross-References for Graph Fields

Table 40 lists all data fields displayed in MAINVIEW for CICS graphs. This table can be used to build new display combinations.

Table 40. Field Cross-Reference for Graphs

Field name	Field no.	Graph areas	Unit of measure	Threshold default
# 0.0-0.0 SEC	114-125 205-210	Service Service	Count	0
# CICS PAGEINS	97	CICS	Count	0
# CICS PAGEOUTS	98	CICS	Count	0
% 0.0-0.0 SEC	126-137 211-216	Service	Percent	0
% CPU (NONCICS)	101	Service	Percent	20.0 (200)
% CPUR (NONCICS)	100	CICS	Percent	15.0 (150)
% CTL SPL USED	338	Subpool	Percent	0
% DSA APP SPL Applies to CICS/ESA	436	Subpool	Percent	0
% DSA DB SPL Applies to CICS/ESA	442	Subpool	Percent	0
% DSA FIL SPL Applies to CICS/ESA	437	Subpool	Percent	0
% DSA MSC SPL Applies to CICS/ESA	441	Subpool	Percent	0
% DSA PGM SPL Applies to CICS/ESA	440	Subpool	Percent	0
% DSA QUE SPL Applies to CICS/ESA	438	Subpool	Percent	0
% DSA SYS SPL Applies to CICS/ESA	434	Subpool	Percent	0
% DSA TRM SPL Applies to CICS/ESA	435	Subpool	Percent	0
% DSA USR SPL Applies to CICS/ESA	439	Subpool	Percent	0
% ECB OF TOT REQ	356	Long, medium, DL/I	Percent	0
% EDSA APP SPL Applies to CICS/ESA	449	Subpool	Percent	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
% EDSA DB SPL Applies to CICS/ESA	455	Subpool	Percent	0
% EDSA FIL SPL Applies to CICS/ESA	450	Subpool	Percent	0
% EDSA MSC SPL Applies to CICS/ESA	454	Subpool	Percent	0
% EDSA PGM SPL Applies to CICS/ESA	453	Subpool	Percent	0
% EDSA QUE SPL Applies to CICS/ESA	451	Subpool	Percent	0
% EDSA SYS SPL Applies to CICS/ESA	447	Subpool	Percent	0
% EDSA TRM SPL Applies to CICS/ESA	448	Subpool	Percent	0
% EDSA USR SPL Applies to CICS/ESA	452	Subpool	Percent	0
% EXECUTION	337	Long, medium, DL/I	Percent	0
% FC OF TOT REQ	350	Long, medium, DL/I	Percent	0
% ISO SPL USED	341	Subpool	Percent	0
% JC OF TOT REQ	354	Long, medium, DL/I	Percent	0
% KC OF TOT REQ	357	Long, medium, DL/I	Percent	0
% MIX SPL USED	340	Subpool	Percent	0
% OF DSA USED	345	Subpool	Percent	0
% OF DSA USED Applies to CICS/ESA	443	Subpool	Percent	0
% OF EDSA USED Applies to CICS/ESA	456	Subpool	Percent	0
% OF <16MB USED Applies to CICS/ESA	444	Subpool	Percent	0
% OF >16MB USED Applies to CICS/ESA	457	Subpool	Percent	0
% OF OSCOR USED	346	Subpool	Percent	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
% PC OF TOT REQ	355	Long, medium, DL/I	Percent	0
% PGM SPL USED	344	Subpool	Percent	0
% PROC BY DL/I	83	DL/I	Percent	0
% RPL SPL USED	343	Subpool	Percent	0
% SHR SPL USED	342	Subpool	Percent	0
% SUS OF TOT REQ	358	Long, medium, DL/I	Percent	0
% SUSPENDED	359	Long, medium, DL/I	Percent	0
% TASK TRM ATTCH	347	CICS	Percent	0
% TC OF TOT REQ	351	Long, medium, DL/I	Percent	0
% TD OF TOT REQ	353	Long, medium, DL/I	Percent	0
% TEL SPL USED	339	Subpool	Percent	0
% TS OF TOT REQ	352	Long, medium, DL/I	Percent	0
% WAIT FC STRNG	336	Long, medium, DL/I	Percent	0
% WAIT ON ADABAS	367	Long, medium, DL/I	Percent	0
% WAIT ON DATACOM	377	Long, medium, DL/I	Percent	0
% WAIT ON DB2	382	Long, medium, DL/I	Percent	0
% WAIT ON ECB	328	Long, medium, DL/I	Percent	0
% WAIT ON FC	74	Long, medium, DL/I	Percent	0
% WAIT ON IDMS	372	Long, medium, DL/I	Percent	0
% WAIT ON JC	77	Long, medium, DL/I	Percent	0
% WAIT ON PC	327	Long, medium, DL/I	Percent	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
% WAIT ON SUPRA	387	Long, medium, DL/I	Percent	0
% WAIT ON TC	75	Long, medium, DL/I	Percent	0
% WAIT ON TD	326	Long, medium, DL/I	Percent	0
% WAIT ON TS	76	Long, medium, DL/I	Percent	0
% WAIT PSB SCH	79	DL/I	Percent	0
% WAIT TS STRNG	335	Long, medium, DL/I	Percent	0
% WAIT VSAM IO	82	DL/I	Percent	0
ASID <16MB HWM Applies to CICS/ESA	419	Subpool	Count	0
ASID >16MB HWM Applies to CICS/ESA	430	Subpool	Count	0
AVG # ADABAS WAIT	366	Long, medium, DL/I	Count	0
AVG # CHKP/DB CMND	59	DL/I	Count	12
AVG # DATACOM WT	376	Long, medium, DL/I	Count	0
AVG # DB2 WT	381	Long, medium, DL/I	Count	0
AVG # DISPATCHS	35	Long, medium, DL/I	Count	0
AVG # DLET CMND	57	DL/I	Count	12
AVG # DLI PROC	66	DL/I	Count	0
AVG # ECB WAITS	325	Long, medium, DL/I	Count	2
AVG # FC ADDS	12	Long, DL/I	Count	0
AVG # FC BROWSE	42	Long, DL/I	Count	0
AVG # FC CALLS	44	Long, DL/I	Count	12
AVG # FC DELETS	13	Long, DL/I	Count	0
AVG # FC GETS	10	Long, DL/I	Count	0
AVG # FC OTHER	43	Long, DL/I	Count	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
AVG # FC PUTS	11	Long, DL/I	Count	0
AVG # FC STR WT	41	Long, medium, DL/I	Count	1
AVG # FC WAITS	26	Long, medium, DL/I	Count	5
AVG # GHN CMNDS	54	DL/I	Count	12
AVG # GHNP CMNDS	55	DL/I	Count	12
AVG # GHU CMNDS	53	DL/I	Count	12
AVG # GN CMNDS	51	DL/I	Count	12
AVG # GNP CMNDS	52	DL/I	Count	12
AVG # GU CMNDS	50	DL/I	Count	12
AVG # IC PUTS	36	Long, DL/I	Count	0
AVG # IDMS WT	371	Long, medium, DL/I	Count	0
AVG # ISRT CMND	56	DL/I	Count	12
AVG # JC PUTS	17	Long, DL/I	Count	0
AVG # JC WAITS	27	Long, medium, DL/I	Count	7
AVG # PAGE-INS	24	Long, DL/I	Count	5
AVG # PC LINKS	21	Long, DL/I	Count	0
AVG # PC LOADS	23	Long, DL/I	Count	0
AVG # PC WAITS	324	Long, medium, DL/I	Count	2
AVG # PC XCTRLS	22	Long, DL/I	Count	0
AVG # REPL CMND	58	DL/I	Count	12
AVG # SC GETS	45	Long, DL/I	Count	25
AVG # SCH DELAY	64	DL/I	Count	0
AVG # SUPRA WT	386	Long, medium, DL/I	Count	0
AVG # SUSPENDS	4	Long, medium, DL/I	Count	0
AVG # TC WAITS	25	Long, medium, DL/I	Count	2

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
AVG # TD GETS	14	Long, DL/I	Count	0
AVG # TD PURGES	16	Long, DL/I	Count	0
AVG # TD PUTS	15	Long, DL/I	Count	0
AVG # TD WAITS	323	Long, medium, DL/I	Count	2
AVG # TS GETS	18	Long, DL/I	Count	0
AVG # TS PUT(A)	19	Long, DL/I	Count	0
AVG # TS PUT(M)	20	Long, DL/I	Count	0
AVG # TS WAITS	28	Long, medium, DL/I	Count	2
AVG # TS STR WT	39	Long, medium, DL/I	Count	1
AVG # VSAM WAIT	65	DL/I	Count	5
AVG ADABAS WAIT	365	Long, medium, DL/I	Time	0
AVG CPU REAL	2	Long, medium, DL/I	Time	0.10 sec
AVG CPU TIME	34	Long, medium, DL/I	Time	0.15 sec
AVG CPUR / DISP	263	CICS	Time	0
AVG CPUR / WAIT	102	CICS	Time	0
AVG DATACOM WAIT	375	Long, medium, DL/I	Time	0
AVG DB2 WAIT	380	Long, medium, DL/I	Time	0
AVG DBLWDS XMIT	47	Long, DL/I	Count	0
AVG DLI PROCESS	62	DL/I	Time	0
AVG DSA HWM	99	CICS	Count	0
AVG EVENT WAIT	219	Long, medium, DL/I	Time	0.05 sec
AVG FC I/O WAIT	7	Long, medium, DL/I	Time	0.05 sec
AVG FC STRG WT	40	Long, medium, DL/I	Time	0.10 sec

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
AVG IDMS WAIT	370	Long, medium, DL/I	Time	0
AVG I/O TIME	141	File	Time	0.05 sec
AVG JC I/O WAIT	8	Long, medium, DL/I	Time	0.05 sec
AVG LOCK WAIT	144	File	Time	0.10 sec
AVG PC I/O WAIT	204	Long, medium, DL/I	Time	0.05 sec
AVG PSB ACTIVE	63	DL/I	Time	0
AVG PSBS ACTIVE	67	DL/I	Count	0
AVG PSB SCH WT	60	DL/I	Time	0
AVG RESPONSE	5	Long, medium, DL/I	Time	0.50 sec
AVG STORAGE HWM Applies to CICS/ESA	460	Subpool	Count	0
AVG STORAGE (K)	46	Long, DL/I	K-bytes	0
AVG SUPRA WAIT	385	Long, medium, DL/I	Time	0
AVG SUSPND TIME	3	Long, medium, DL/I	Time	0.10 sec
AVG TC I/O WAIT	6	Long, medium, DL/I	Time	1.60 sec
AVG TD I/O WAIT	32	Long, medium, DL/I	Time	0.05 sec
AVG TIME / WAIT	103	CICS	Time	0
AVG TS I/O WAIT	9	Long, medium, DL/I	Time	0.05 sec
AVG TS STRG WT	38	Long, medium, DL/I	Time	0.10 sec
AVG VSAM I/O WAIT	61	DL/I	Time	0.05 sec
CNT LT 00.0 SEC	37	Long, DL/I, medium	Count	0
CONTROL SPL HWM	104	Subpool	Count	0
C0 TCB CPU % Applies to CICS/ESA	407	CICS	Percent	5.0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
C0 TCB WAIT:CPU Applies to CICS/ESA	433	CICS	Percent	1.5
C0 TCB WAIT % Applies to CICS/ESA	406	CICS	Percent	5.0
C0 WAIT COUNT Applies to CICS/ESA	408	CICS	Count	0
DSA APP SP HWM Applies to CICS/ESA	411	Subpool	Count	0
DSA DB SP HWM Applies to CICS/ESA	418	Subpool	Count	0
DSA FIL SP HWM Applies to CICS/ESA	412	Subpool	Count	0
DSA FREEM CNT Applies to CICS/ESA	446	Subpool	Count	0
DSA GETM CNT Applies to CICS/ESA	445	Subpool	Count	0
DSA MSC SP HWM Applies to CICS/ESA	417	Subpool	Count	0
DSA PGM SP HWM Applies to CICS/ESA	415	Subpool	Count	0
DSA QUE SP HWM Applies to CICS/ESA	413	Subpool	Count	0
DSA SYS SP HWM Applies to CICS/ESA	409	Subpool	Count	0
DSA TOTAL HWM Applies to CICS/ESA	416	Subpool	Count	0
DSA TRM SP HWM Applies to CICS/ESA	410	Subpool	Count	0
DSA USR SP HWM Applies to CICS/ESA	414	Subpool	Count	0
EDSA APP SP HWM Applies to CICS/ESA	422	Subpool	Count	0
EDSA DB SP HWM Applies to CICS/ESA	429	Subpool	Count	0
EDSA FIL SP HWM Applies to CICS/ESA	423	Subpool	Count	0
EDSA FREEM CNT Applies to CICS/ESA	459	Subpool	Count	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
EDSA GETM CNT Applies to CICS/ESA	458	Subpool	Count	0
EDSA MSC SP HWM Applies to CICS/ESA	428	Subpool	Count	0
EDSA PGM SP HWM Applies to CICS/ESA	426	Subpool	Count	0
EDSA QUE SP HWM Applies to CICS/ESA	424	Subpool	Count	0
EDSA SYS SP HWM Applies to CICS/ESA	420	Subpool	Count	0
EDSA TOTAL HWM Applies to CICS/ESA	427	Subpool	Count	0
EDSA TRM SP HWM Applies to CICS/ESA	421	Subpool	Count	0
EDSA USR SP HWM Applies to CICS/ESA	425	Subpool	Count	0
FILE I/O COUNT	140	File	Count	0
CICS CPUR USE	262	CICS	Percent	15
FREEMAIN COUNT	139	Subpool	Count	0
GETMAIN COUNT	138	Subpool	Count	0
ISO. SPL HWM	107	Subpool	Count	0
JC CPU:CPUR	320	CICS	Percent	1.5
JC CPU LOAD %	91	CICS	Percent	05.0
JC CPUR LOAD %	92	CICS	Percent	3.8
JC DISPATCH CNT	93	CICS	Count	0
KC CPU:CPUR	321	CICS	Percent	1.5
KC CPU LOAD %	94	CICS	Percent	08.0
KC CPUR LOAD %	95	CICS	Percent	6.0
KC DISPATCH CNT	96	CICS	Count	0
LOCK WAIT COUNT	143	File	Count	2
MIXED SPL HWM	106	Subpool	Count	0
MVS SRB LOAD %	360	CICS	Percent	10.0
OSCOR SPL HWM	113	Subpool	Count	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
PAGEIN PER SEC	220	CICS	Count	2
PAGEOUT PER SEC	221	CICS	Count	3
PCT LT 00.0 SEC	217	Long, medium, DL/I	Percent	0
PGM SPL SHAKES	112	Subpool	Count	0
PROGRAM SPL HWM	110	Subpool	Count	0
QR TCB CPU % Applies to CICS/ESA	401	CICS	Percent	5.0
QR TCB WAIT:CPU Applies to CICS/ESA	431	CICS	Percent	1.5
QR TCB WAIT % Applies to CICS/ESA	400	CICS	Percent	5.0
QR WAIT COUNT Applies to CICS/ESA	402	CICS	Count	0
RPL SPL HWM	109	Subpool	Count	0
R0 TCB CPU % Applies to CICS/ESA	404	CICS	Percent	5.0
R0 TCB WAIT:CPU Applies to CICS/ESA	432	CICS	Percent	1.5
R0 TCB WAIT % Applies to CICS/ESA	403	CICS	Percent	5.0
R0 WAIT COUNT Applies to CICS/ESA	405	CICS	Count	0
SHARED SPL HWM	108	Subpool	Count	0
TASK COUNT (ALL)	322	CICS	Count	0
TASK COUNT (TRM)	349	CICS	Count	0
TC CPU:CPUR	319	CICS	Percent	1.5
TC CPU LOAD %	88	CICS	Percent	10.0
TC CPUR LOAD %	89	CICS	Percent	7.5
TC DISPATCH CNT	90	CICS	Count	0
TOT # ADABAS WAIT	369	Long, medium, DL/I	Count	0
TOT # DB2 WT	384	Long, medium, DL/I	Count	0
TOT # DLET CMND	271	DL/I	Count	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
TOT # DL/I CAll	273	DL/I	Count	0
TOT # DL1 PROC	280	DL/I	Count	0
TOT # DISPATCHS	252	Long, medium, DL/I	Count	0
TOT # ECB WAITS	334	Long, medium, DL/I	Count	0
TOT # DATACOM WT	379	Long, medium, DL/I	Count	0
TOT # FC ADDS	233	Long, DL/I	Count	0
TOT # FC BROWSE	258	Long, DL/I	Count	0
TOT # FC DELETS	234	Long, DL/I	Count	0
TOT # FC EXCP	260	Long, DL/I	Count	0
TOT # FC GETS	231	Long, DL/I	Count	0
TOT # FC OTHER	259	Long, DL/I	Count	0
TOT # FC PUTS	232	Long, DL/I	Count	0
TOT # FC STR WT	257	Long, medium, DL/I	Count	0
TOT # FC WAITS	247	Long, medium, DL/I	Count	0
TOT # GHN CMNDS	268	DL/I	Count	0
TOT # GHNP CMNDS	269	DL/I	Count	0
TOT # GHU CMNDS	267	DL/I	Count	0
TOT # GN CMNDS	265	DL/I	Count	0
TOT # GNP CMNDS	266	DL/I	Count	0
TOT # GU CMNDS	264	DL/I	Count	12
TOT # IC PUTS	253	Long, DL/I	Count	0
TOT # IDMS WT	374	Long, medium, DL/I	Count	0
TOT # ISRT CMNDS	270	DL/I	Count	0
TOT # JC PUTS	238	Long, DL/I	Count	0
TOT # JC WAITS	248	Long, medium, DL/I	Count	0
TOT # PAGE-INS	245	Long, DL/I	Count	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
TOT # PC LINKS	242	Long, DL/I	Count	0
TOT # PC LOADS	244	Long, DL/I	Count	0
TOT # PC WAITS	333	Long, medium, DL/I	Count	0
TOT # PC XCTRLS	243	Long, DL/I	Count	0
TOT # PSBS ACT	281	DL/I	Count	0
TOT # REPL CMND	272	DL/I	Count	0
TOT # SC GETS	261	Long, DL/I	Count	0
TOT # SCH DELAY	278	DL/I	Count	0
TOT # SUPRA WT	389	Long, medium, DL/I	Count	0
TOT # SUSPENDS	225	Long, medium, DL/I	Count	0
TOT # TC WAITS	246	Long, medium, DL/I	Count	0
TOT # TD GETS	235	Long, DL/I	Count	0
TOT # TD PURGES	237	Long, DL/I	Count	0
TOT # TD PUTS	236	Long, DL/I	Count	0
TOT # TD WAITS	332	Long, medium, DL/I	Count	0
TOT # TS GETS	239	Long, DL/I	Count	0
TOT # TS PUT(A)	240	Long, DL/I	Count	0
TOT # TS PUT(M)	241	Long, DL/I	Count	0
TOT # TS STR WT	255	Long, medium, DL/I	Count	0
TOT # TS WAITS	249	Long, medium, DL/I	Count	0
TOT # VSAM WAIT	279	DL/I	Count	0
TOT ADABAS WAIT	368	Long, medium, DL/I	Time	0
TOT CPU REAL	223	Long, medium, DL/I	Time	0
TOT CPU TIME	251	Long, medium, DL/I	Time	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
TOT DATACOM WAIT	378	Long, medium, DL/I	Time	0
TOT DB2 WAIT	383	Long, medium, DL/I	Time	0
TOT DLI PROCESS	276	DL/I	Time	0
TOT EVENT WAIT	331	Long, medium, DL/I	Time	0
TOT FC I/O WAIT	228	Long, medium, DL/I	Time	0
TOT FC STRG WT	256	Long, medium, DL/I	Time	0
TOT IDMS WT	373	Long, medium, DL/I	Time	0
TOT JC I/O WAIT	229	Long, medium, DL/I	Time	0
TOT PC I/O WAIT	330	Long, medium, DL/I	Time	0
TOT PSB ACTIVE	277	DL/I	Time	0
TOT PSB SCH WT	274	DL/I	Time	0
TOT RESPONSE	226	Long, medium, DL/I	Time	0
TOT SUPRA WAIT	388	Long, medium, DL/I	Time	0
TOT SUSPND TIME	224	Long, medium, DL/I	Time	0
TOT TC I/O WAIT	227	Long, medium, DL/I	Time	0
TOT TD I/O WAIT	329	Long, medium, DL/I	Time	0
TOT TS I/O WAIT	230	Long, medium, DL/I	Time	0
TOT TS STRG WT	254	Long, medium, DL/I	Time	0
TOT VSAM I/O WAIT	275	DL/I	Time	0
TOTAL DSA HWM	111	Subpool	Count	0
TOTAL I/O TIME	142	File	Time	0

Table 40. Field Cross-Reference for Graphs (continued)

Field name	Field no.	Graph areas	Unit of measure	Threshold default
TOTAL LOCK WAIT	145	File	Time	0
TP SPL HWM	105	Subpool	Time	0
TRANS/SEC (ALL)	222	CICS	Count	4
TRANS/SEC (TRM)	348	CICS	Count	4
USE COUNT	1	Long, medium, DL/I	Count	0
USER CPU:CPUR	318	CICS	Percent	1.5
USER CPU LOAD %	85	CICS	Percent	60.0
USER DSPTCH CNT	87	CICS	Count	0
USER CPUR LOAD %	86	CICS	Percent	45.0

Appendix B. DFHTCL00 Values

This appendix describes the data that is presented for transaction class DFHTCL00 in the MAINVIEW for CICS transaction class views (CTRNCLA). DFHTCL00 is a special class reserved by IBM for transactions that are not assigned to a transaction class. Some of the data presented for DFHTCL00 varies from the data for other transaction classes.

Table 41 lists the CTRNCLA fields whose meanings differ for DFHTCL00 and describes the differences in the data presented.

Table 41. DFHTCL00 Values in CTRNCLA Views

Field Description	Standard Meaning	Special Meaning for DFHTCL00
Transactions in Class	The number of installed transaction definitions that are assigned to this transaction class.	A value of N/A appears for DFHTCL00 because it is a special class that represents all transactions not assigned to any other class. When you use the hyperlink associated with this field, the CTRAN view shows all transactions not assigned to a transaction class.
Maximum Active Tasks	The maximum number of tasks in this transaction class that can run concurrently.	The value that appears for DFHTCL00 is the system MAXTASKS value. If you use the SET action to change this value for DFHTCL00, the system MAXTASKS value is changed.
Queue Purge Threshold	A threshold value that limits the number of transactions that can queue for dispatch in this transaction class. The size of the dispatch queue is limited to one less than this value (n - 1). Transactions that are attached after the threshold of n - 1 is reached are purged.	A value of N/A appears for DFHTCL00. There is no global limit on the number of transactions that can be queued for dispatch. The SET action is not valid for DFHTCL00 since there is no value to be changed.
Current Active Tasks	The number of tasks started by transactions in this class that are currently running.	The number of tasks in all classes that are currently running.
Total Active Tasks	The total number of tasks in this transaction class that became active during the current CICS statistical interval.	The total number of tasks in all classes that became active during the current CICS statistical interval.

Table 41. DFHTCL00 Values in CTRNCLA Views (continued)

Field Description	Standard Meaning	Special Meaning for DFHTCL00
Active High Water Mark	The highest number of tasks in this transaction class that were concurrently active during the current CICS statistical interval.	The highest number of tasks in any transaction class that were concurrently active during the current CICS statistical interval.
Times at Max Active	The number of times the Maximum Active Tasks value for this transaction class was reached during the current CICS statistical interval.	The total number of times the system MAXTASKS value was reached during the current CICS statistical interval.
Current Queued Tasks	The number of tasks in this transaction class that are currently queued for dispatch.	The number of tasks not belonging to any class that are currently queued for dispatch.
Total Queued Tasks	The total number of tasks in this transaction class that were queued for dispatch during the current CICS statistical interval and either became active or were purged from the queue.	The total number of tasks not belonging to any class that were queued for dispatch during the current CICS statistical interval.
Queued High Water Mark	The highest number of tasks in this transaction class that were concurrently queued for dispatch during the current CICS statistical interval.	The highest number of tasks not belonging to any class that were concurrently queued for dispatch during the current CICS statistical interval.
Times at Max Queued	The number of times the Queue Purge Threshold value for this transaction class was reached during the current CICS statistical interval.	A value of N/A appears for DFHTCL00. There is no Queue Purge Threshold value for transactions that are not assigned to a class.
Total Attach Requests	The total number of tasks in this transaction class that attempted to be attached for execution during the current CICS statistical interval.	The total number of tasks that attempted to be attached for execution.
Accepted Requests Without Queuing	The number of tasks in this transaction class that were accepted for execution without being placed on the dispatch queue.	The number of tasks not belonging to any class that were accepted for execution without being placed on the dispatch queue.

Table 41. DFHTCL00 Values in CTRNCLA Views (continued)

Field Description	Standard Meaning	Special Meaning for DFHTCL00
Accepted Requests After Queuing	The number of tasks in this transaction class that were accepted for execution after being placed on the dispatch queue.	The number of tasks not belonging to any class that were accepted for execution after being placed on the dispatch queue.
Purged Requests Total	The total number of tasks in this transaction class that were purged during the current CICS statistical interval.	The total number of tasks not belonging to any class that were purged while attempting to queue for dispatch.
Purged Requests Due to Queue-Full	The number of tasks in this transaction class that were purged immediately because the Queue Purge Threshold value had been reached.	A value of N/A appears for DFHTCL00. There is no Queue Purge Threshold value for transactions that are not assigned to a class.
Purged Requests From Queue	The number of tasks in this transaction class that were purged from the dispatch queue.	The number of tasks not belonging to any class that were purged from the dispatch queue.
Queue Time Accepted Request Total	The total amount of time that tasks in this transaction class spent waiting in the queue during the current CICS statistical interval.	The total amount of time that tasks not belonging to any class spent waiting in the queue during the current CICS statistical interval.
Queue Time Accepted Request Average	The average amount of time that tasks in this transaction class spent waiting in the queue during the current CICS statistical interval.	The average amount of time that tasks not belonging to any class spent waiting in the queue during the current CICS statistical interval.
Queue Time Current Queued Total	The total amount of time that tasks in this transaction class that are currently queued have spent waiting.	The total amount of time that tasks which are currently queued and do not belong to any class have spent waiting in the queue.
Queue Time Current Queued Average	The average amount of time that tasks in this transaction class that are currently queued have spent waiting.	The average amount of time that tasks which are currently queued and do not belong to any class have spent waiting in the queue.

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STOP!

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