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About This Document

This document is intended for OMEGAMON II™ for MVS users who:

- are already familiar with OMEGAMON™ for MVS commands and want to refresh their memory about a command’s syntax or available keywords
- are already familiar with EPILOG™ for MVS commands and want to refresh their memory about a command’s syntax or available keywords
- have zoomed to OMEGAMON from the GoTo pull-down menu
- have zoomed to EPILOG from the GoTo pull-down menu
- have logged on to OMEGAMON on a dedicated terminal

The document is organized alphabetically by command name and includes “Command Groupings” on page 17 that is an introduction organized by topic (exception analysis, hiperspace, paging, and so on) where you can refresh your memory as to the proper spelling of a command or keyword.
OMEGAMON Command Syntax and Conventions

Introduction
This section describes the types of OMEGAMON commands and the appropriate time and place to enter each type.

Command types
There are four types of OMEGAMON commands:

INFO-line commands
INFO-line commands perform control functions such as printing a screen (/PRINT) and stopping your OMEGAMON session (/STOP). INFO-line commands are executed before major, minor, or immediate commands and, unlike the other types of commands, disappear as soon as they execute. Therefore, you cannot save them in a screen space. INFO-line commands always begin with a slash (/), and must be entered on the top line starting in position 2.

If you are running in automatic update mode, placing the cursor in position 1 on this line pauses updating until you move the cursor.

major commands
Major commands select general categories for display, such as system information, resource utilization, or storage utilization. You can enter major commands on any line below the INFO-line.

minor commands
Minor commands display detailed information about the category that the major selects. You can enter minor commands on any line below the INFO-line, but they will not execute unless they are preceded by the appropriate major command.

immediate commands
Immediate commands serve various functions. Some are system monitoring commands, while others give you information about your session or about OMEGAMON. Still others provide screen and session controls, and often perform the same or similar functions as INFO-line commands of the same name. Enter immediate commands on any line below the INFO-line; you can enter immediate commands between a major command and one of its minors. You can include immediate commands as part of a screen space.
The following figure shows how each of these commands appears on an OMEGAMON screen.

| 1 | /PRINT_ _ _ _ _ #01 VTAM OM/DEX V750./C A083 March 2000 17:37 |
| 2 | DISK VMXA04 VMXA05 VMSP50 VMHP02 OMONVM DOSTST DP215R + |
| 3 | dadr 1A0 1A1 1B0 1B1 2A7 2B0 4F1 |
| 4 | .MIN DADR DALC DIO DIOQ DOPN DRES DSTA DTYP DUSR + |

1 INFO-line
2 major
   In this example, the major command DISK produces a list of online disks.
3 minor
   In this example, the minor command DADR displays the device numbers of the devices listed with DISK.
4 immediate
   In this example, .MIN produces a list of all the minors of DISK.

Command syntax

The following diagram describes the OMEGAMON command syntax.

```
lccccnn
  ^----> extended argument or keyword field (positions 8 through 72)
  ^----> argument field (positions 6 and 7)
  ^----> command name (positions 2 through 5)
  ^----> label field (position 1)
```

**Label field**
Many commands accept a character in this field that alters the type of output displayed. The field is also used for special command modifiers, such as those that request online help text for commands. Command modifiers are described in the section, “Command Modifiers” on page 8.

**Command name**
This field contains the command name and is four characters in length. Enter command names beginning in position 2.

**Argument field**
Many commands accept arguments that modify their function, specify output options, or restrict output to display only that which meets certain criteria. Arguments that are unique to a command are described along with the command. Rate and difference arguments that apply to commands that normally display numeric and time values are described in “Command Rate and Difference Arguments” on page 9.
extended argument
Arguments, keywords, and parameters are entered in positions 8 through 72. Note that a parameter string cannot be continued on a second line; the command (along with the additional keywords) must be repeated on succeeding lines.

Command Modifiers
You can enter the following command modifiers in position 1 of all major, minor, immediate, or INFO-line commands. If you do not include a command modifier, a command displays one line of output at a time.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>Controls the display of major command output. When a major command selects a list of items (for example, all online disks), the list may extend to more than one line. The value of ( n ) is a number from 1 to 9 or a letter from A to Z (representing 10 to 35) that specifies the number of output lines to skip from the last line displayed. For instance, <code>3DISK</code> skips the first three lines of command output and displays the fourth line of output on the screen.</td>
</tr>
<tr>
<td>&lt;</td>
<td>Causes a major command to display all lines of output at once.</td>
</tr>
<tr>
<td>#</td>
<td>Displays the number of items available for a major command to select.</td>
</tr>
<tr>
<td>&gt;</td>
<td>Indicates a comment line. OMEGAMON generates this character in front of some commands after they execute to prevent them from being executed again on succeeding cycles. It is also displayed in front of help text. You can use it when creating screen spaces to designate the line as comment text. The _ (underscore) is an alias of &gt;.</td>
</tr>
<tr>
<td>?</td>
<td>Provides a one-line explanation of the command, as described in “Obtaining Online Help for Major, Minor, and Immediate Commands” on page 10.</td>
</tr>
<tr>
<td>/</td>
<td>Provides a detailed explanation of the command and its syntax, as described in “Obtaining Online Help for Major, Minor, and Immediate Commands” on page 10.</td>
</tr>
<tr>
<td>;</td>
<td>Provides a detailed explanation of the command and its syntax, as described in “Obtaining Online Help for Major, Minor, and Immediate Commands” on page 10.</td>
</tr>
</tbody>
</table>
Command Rate and Difference Arguments

For any minor OMEGAMON command that normally displays a numeric value, you can add an argument that calculates the rate of a system event during an OMEGAMON interval or the difference from one interval to the next.

For commands that normally display time values, such as CPU time, the rate calculated represents a scaled percentage of utilization (expressed as a decimal value) where the real time of the interval equals 100%.

OMEGAMON requires data from 2 cycles to calculate a rate or a difference. On the first cycle (the initialization cycle), a row of 8 periods (........) appears. The rate appears on the next cycle.

Be aware that the rate and difference arguments are not effective in the following cases.

- If a major command selects different items from cycle to cycle. For example, the DSKB major command may select different busy disks at each screen update. When a rate argument is used with a minor of DSKB, the periods may appear after each update, indicating that OMEGAMON is initializing each time.

- If a command displays a value that has been reset to zero by the system between OMEGAMON intervals.

The arguments shown below are entered in positions 6 and 7 after a minor command that displays a numeric value.

```
cccc [.D|.R|.H|.M]
```

- **.D** Causes OMEGAMON to calculate the difference between the two most recent values of an event monitored by the specified command (cccc).

- **.R** Causes OMEGAMON to calculate the rate per second of an event monitored by the specified command (cccc) during the last OMEGAMON interval. .S is an alias for .R.

- **.H** Displays a rate per hour.

- **.M** Displays a rate per minute.
Screen Display Symbols

OMEGAMON displays the following screen symbols with command output.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;</td>
<td>Comment character. Any command entered on this line will not execute. In addition to the comment lines you enter yourself, OMEGAMON automatically comments out some commands after they execute to prevent re-execution on the next cycle. OMEGAMON also comments out help text, so it remains on the screen until you clear it.</td>
</tr>
<tr>
<td>+</td>
<td>Continuation character. By default, major and minor commands display one line of output at a time; if a plus sign (+) appears at the end of a line of output, it indicates that more output is available. To see additional lines of output for a major command, perform one of the following actions: Enter &lt; in position 1 preceding the command to generate all output at once when you execute it. After you issue a command for the first time, enter a number in position 1 to specify how many lines of output to skip before continuing the display. Repeat the command to display the next line of output. Use the .RC command to display all lines of output. To see additional lines of output for a minor command, use the .RC command.</td>
</tr>
<tr>
<td>:</td>
<td>Input character. Indicates that you can overtype the current setting to change a value.</td>
</tr>
</tbody>
</table>

Obtaining Online Help for Major, Minor, and Immediate Commands

You can use one of three symbols in position 1 in front of a major, minor, or immediate command to request an explanation of the command function. All commands offer a brief, one-line help. Many commands also have an extended help, which gives you more information about the command or displays the command operands. A continuation character (+) to the right of the one-line help indicates that more (extended) help is available. To access extended help for a command, enter the command preceded by a slash or a semicolon, as described below.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Type of Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>?</td>
<td>Displays a one-line help that stays on the screen until you clear it.</td>
</tr>
<tr>
<td>/</td>
<td>In addition to the one-line help, displays an extended help that stays on the screen until you clear it with the .DCL command (discussed in this manual).</td>
</tr>
<tr>
<td>;</td>
<td>In addition to the one-line help, displays an extended help that disappears from the screen on the next cycle.</td>
</tr>
</tbody>
</table>
Obtaining Online Help for INFO-line Commands

You can use the .ILC immediate command to obtain help for an INFO-line command. The format of the .ILC command is as follows:

\.ILC ccccc

where ccccc is the name of the INFO-line command, without the slash. For instance, to display help for the /DEF command, enter:

\.ILC DEF

Help for INFO-line commands remains on the display screen until you clear it.

Documentation set information

- OMEGAMON II for MVS Configuration and Customization Guide, V520 M251-5747
- OMEGAMON II for MVS Command Language Reference Manual, V520 M253-5749
- OMEGAMON II for MVS Quick Reference, V520 M262-4888

Messages for this product, as well as other Candle products, can be found in the Candle Products Messages Manual.

Where to look for more information

For more information related to this product, please see the

- technical documentation CD-ROM that came with your product
- technical documentation information available on the Candle Web site at www.candle.com
- online help provided with this product

Ordering additional documentation

To order additional product manuals, contact your Candle Customer Support representative.

We would like to hear from you

Candle welcomes your comments and suggestions for changes or additions to the documentation set. A user comment form, located at the back of each manual, provides simple instructions for communicating with the Candle Information Development department.

You can also send email to UserDoc@candle.com. Please include "OMEGAMON II for MVS Command Language Reference Manual V.520" in the subject line.
Adobe Portable Document Format

Printing this book

Candle supplies documentation in the Adobe Portable Document Format (PDF). The Adobe Acrobat Reader will print PDF documents with the fonts, formatting, and graphics in the original document. To print a Candle document, do the following:

1. Specify the print options for your system. From the Acrobat Reader Menu bar, select File > Page Setup… and make your selections. A setting of 300 dpi is highly recommended as is duplex printing if your printer supports this option.

2. To start printing, select File > Print… on the Acrobat Reader Menu bar.

3. On the Print pop-up, select one of the Print Range options for
   - All
   - Current page
   - Pages from: [ ] to: [ ]

4. (Optional). Select the Shrink to Fit option if you need to fit oversize pages to the paper size currently loaded on your printer.

Printing problems?

The print quality of your output is ultimately determined by your printer. Sometimes printing problems can occur. If you experience printing problems, potential areas to check are:

- settings for your printer and printer driver. (The dpi settings for both your driver and printer should be the same. A setting of 300 dpi is recommended.)
- the printer driver you are using. (You may need a different printer driver or the Universal Printer driver from Adobe. This free printer driver is available at www.adobe.com.)
- the halftone/graphics color adjustment for printing color on black and white printers (check the printer properties under Start > Settings > Printer). For more information, see the online help for the Acrobat Reader.
- the amount of available memory in your printer. (Insufficient memory can cause a document or graphics to fail to print.)

For additional information on printing problems, refer to the documentation for your printer or contact your printer manufacturer.

Contacting Adobe

If additional information is needed about Adobe Acrobat Reader or printing problems, see the Readme.pdf file that ships with Adobe Acrobat Reader or contact Adobe at www.adobe.com.
This chapter provides information about the new features provided with OMEGAMON II for MVS, Version 520.
Descriptions of the New Features

New fields on the Set Service Class Thresholds panel

New fields have been added to the Set Service Class Thresholds panel to permit you to qualify goal reporting for a specific service class. The qualification applies to either Velocity goals or Response Time Goals.

On this panel, if the Goal Type is specified as Velocity, then an updatable field, **with CPU percent busy**, is presented to you. If your system is displaying a workload warning or critical light that is unexpected or misleading, you can specify a percentage in this field to identify the minimum percentage of CPU that must be consumed before OMEGAMON II for MVS displays the warning or critical light.

If the Goal Type is specified as Response time, then the updatable field, **with transaction rate** is presented. Your response is entered in two parts, the number of transactions and a time qualifier, that may be h, m, or s (hours, minutes, or seconds). This field represents the number of transactions per time period that must occur before OMEGAMON II for MVS displays a warning or critical light.

Support for the IBM 2105 Enterprise Storage Server

This release of OMEGAMON II for MVS provides cache memory reports for IBM’s 2105 Enterprise Storage Server. These statistics include cache read and write hit percentages and I/O requests indirectly related to the cache. Both realtime and historical data is available.

Bottleneck analysis for multi-tasking jobs

Some workloads are capable of performing in multiple execution states simultaneously. An example is a workload that is actively using CPU while delayed waiting for a tape mount. Such workloads are considered multi-tasking and, therefore, capable of achieving resource total percentages greater than 100%.

Service class information now available through a zoom to Epilog session

You can now use the Display command to display reports about workload manager data. The Workload Manager Service Classes report will provide information, by service class, on the goal type and importance, its duration, percent of transactions to complete within the specified response time goal, as well as the transaction count, transaction rate, I/O rate, average storage, and CPU percent. Display commands you can use include:

- **DIS RSCl** displays summary information about service classes from the perspective of the WLM (goal information and performance index). You can also use the display command to view three detail reports:
  - **DIS SCL(nnnnnnnn)** to display service class information, where nnnnnnnn is a service class name.
  - **DIS WKL(nnnnnnnn)** to display workloads, where nnnnnnnn is a workload name.
  - **DIS RPC(nnnnnnnn)** to display report classes, where nnnnnnnn is a report class name.
Threshold for CPs expected online

The **Set CPU Exception Thresholds** panel permits you to specify a value called CPs expected online. If, during a sampling interval, the actual number of central processors (CPs) detected as being online is less than the value you specified, the CPU light on the System Status panel turns red. If the number of CPs online is greater than the value you specified, the light turns yellow.

You can analyze the problem by navigating to the Analyze CPU Problems panel or navigate directly to the System Environment panel for details.

Online documentation provided in PDF format

With this release of OMEGAMON II for MVS, Candle Corporation has moved the manuals from IBM’s BookMaster to Adobe FrameMaker. This move was made to better enable us to address our customers’ needs by providing tools that enhance productivity.

One of the results of the move is that it is no longer possible to create BookManager versions of the OMEGAMON II for MVS manuals. However, the manuals remain available online in the Adobe PDF version on CD-ROM and are also available on the Candle corporation website at www.Candle.com.

The documentation CD provided with this release has robust and easy-to-use search capabilities. You can search for information in multiple volumes, multiple versions, and across products. The CD also provides easy setup of search indexes with a single click of the mouse.

If you want to order printed copies of the documentation, please contact your Candle Support Services representative.
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Address space information commands

Address space block paging commands

- **JBIA**: Displays the number of blocks paged in from auxiliary storage.
- **JBIE**: Displays the number of blocks moved in from expanded storage.
- **JBOA**: Displays the number of blocks paged out to auxiliary storage.
- **JBOE**: Displays the number of blocks moved out to expanded storage.
- **JEBI**: Displays the number of blocked pages moved in from expanded storage.
- **JEBO**: Displays the number of blocked pages moved out to expanded storage.
- **JPBI**: Displays the number of blocked pages paged in from auxiliary storage.
- **JPBO**: Displays the number of blocked pages paged out to auxiliary storage.
- **JPIN**: Displays the number of pages moved in from expanded storage.
- **JPOT**: Displays the number of pages moved out to expanded storage.

Address space CPU activity commands

- **CPGS**: Displays CPU page-seconds.
- **CPU**: Displays TCB time for current job step or user session.
- **CPU2**: Displays TCB time in seconds.
- **CPUL**: Displays job step CPU time limit.
- **DISP**: Displays dispatching algorithm in use for a job.
- **DPRT**: Displays dispatching priority.
- **DVCT**: Displays device connection time in seconds (XA).
- **JCAF**: Displays CPU affinity.
- **RCP%**: Displays percentage of step CPU time used.
- **SEQN**: Displays sequence number on dispatching queue.
- **SRB2**: Displays SRB time in seconds with a decimal fractional part.
- **SRBT**: Displays SRB time in whole seconds.
- **TCP2**: Displays total CPU utilization in seconds.

Address space environment commands

- **AENV**: Displays graphic display for a given user.
- **TRACnn**: Plots address space activity.
Address space identification commands

ASID Displays address space ID in hex and decimal.
DMNA Displays domain name.
.DMP Displays information at hex offset from ASCB or Unit Control Block.
DOM# Displays domain number.
PERD Displays period number.
PERF Displays performance group number.
PGNA Displays performance group name.
PROC Displays procedure stepname.

Address space major commands

ALLJ Selects all address spaces in ASID order.
BATJ Selects all initiators, active or not.
BATL Selects batch jobs in logically swapped status.
BATX Selects active batch jobs.
BCPU Selects CPU dispatchable batch jobs.
BIO Selects non-CPU dispatchable batch doing I/O.
BSWP Selects batch jobs physically swapped out.
BWAT Selects batch waiting (resident).
JAS#nn Selects address space with ASID=#nn.
JCPU Selects CPU dispatchable address spaces.
JDMnnn Selects address spaces in domain nnn.
JLSW Selects address spaces in logically swapped status.
JOBN cccccccc Selects address space cccccc.
JPAG Selects all address spaces waiting on a page operation.
JPMnmm Selects address spaces in performance group.
JPRnmm Selects address spaces in performance group.
JRES Selects resident address spaces.
JSNAnn Selects address spaces with dispatching number.
JSNCnmm Selects CPU dispatchable address space with dispatching number.
JSWP Selects physically swapped address spaces.
STCJ Selects started task.
Command and Keyword Groups

STCL       Selects started tasks in logically swapped status.
TPD#nn     Selects active TSO users.
TSOD       Selects TSO users in delayed status.
TSOJ       Selects TSO users logged on.
TSOL       Selects TSO users in logically swapped status.
TSOX       Selects TSO users in a transaction.

Address space miscellaneous commands

ASTG       Displays address space threshold group.
CHAPnn     Sets dispatch priority for an address space.
CRPG       Displays transaction class report performance group number.
IODP       Displays I/O dispatching priority.
IOJ        Displays I/O count.
JSTA       Displays job status.
LGID       Displays TSO logon ID that submitted a job.
LRPG       Displays performance group number for submitting logon ID.
QCB        Displays enqueues owned by address space.
SRPG       Displays subsystem report performance group number.
SWCT       Displays short wait count.
SWPC       Displays transaction swap count.
TRCT       Displays transaction count for swapped in address spaces.
TRPG       Displays transaction report performance group number.
TRXC       Displays transaction class report performance group name.
TRXN       Displays transaction name report performance group name.

Address space SRM activity commands

HUIC       Displays highest unreferenced interval count for an address space.
JPCI       Displays address space common area page-ins.
JPRG       Displays page reclaims for address space.
JPGS       Displays pages stolen from address space.
JPUI       Displays address space page-ins.
JPUO       Displays address space page-outs.
JRCM       Displays composite job recommendation value.
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRCP</td>
<td>Displays CPU manager recommendation value.</td>
</tr>
<tr>
<td>JRIO</td>
<td>Displays I/O manager recommendation value.</td>
</tr>
<tr>
<td>JRST</td>
<td>Displays storage manager recommendation value.</td>
</tr>
<tr>
<td>JRWL</td>
<td>Displays workload manager recommendation value.</td>
</tr>
<tr>
<td>SUAL</td>
<td>Displays total service units since the last swap-in.</td>
</tr>
<tr>
<td>SUCP</td>
<td>Displays CPU service units since the last swap-in.</td>
</tr>
<tr>
<td>SUIO</td>
<td>Displays I/O service units since the last swap-in.</td>
</tr>
<tr>
<td>SUMS</td>
<td>Displays Main Storage Occupancy (MSO) service units.</td>
</tr>
<tr>
<td>SUPR</td>
<td>Displays service units at beginning of period.</td>
</tr>
<tr>
<td>SWPR</td>
<td>Displays swap reason.</td>
</tr>
</tbody>
</table>

**Address space storage activity commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA</td>
<td>Displays usage of CSA.</td>
</tr>
<tr>
<td>DSPC</td>
<td>Displays dataspace utilization by an address space.</td>
</tr>
<tr>
<td>DSPC</td>
<td>Displays only those allocations that are currently closed.</td>
</tr>
<tr>
<td>ECSA</td>
<td>Displays a job’s usage of ECSA.</td>
</tr>
<tr>
<td>ESFC</td>
<td>Number of frames of expanded storage used by address space.</td>
</tr>
<tr>
<td>ESQA</td>
<td>Displays a job’s use of ESQA.</td>
</tr>
<tr>
<td>ESQA</td>
<td>Displays ESQA by subpool and protect key.</td>
</tr>
<tr>
<td>FIXF</td>
<td>Displays number of fixed frames for swapped-out user.</td>
</tr>
<tr>
<td>FMCT</td>
<td>Displays total frame count of a swapped in address space.</td>
</tr>
<tr>
<td>FXFB</td>
<td>Displays number of fixed frames in storage below the 16M line.</td>
</tr>
<tr>
<td>FXFR</td>
<td>Displays number of fixed frames in storage.</td>
</tr>
<tr>
<td>NVSC</td>
<td>Displays non-VIO slots held.</td>
</tr>
<tr>
<td>SQA</td>
<td>Displays a job’s usage of SQA.</td>
</tr>
<tr>
<td>SQA</td>
<td>Displays SQA by subpool and protect key.</td>
</tr>
<tr>
<td>TWSF</td>
<td>Displays target working set size in frames.</td>
</tr>
<tr>
<td>TWSS</td>
<td>Displays target working set size in K (1024 bytes).</td>
</tr>
<tr>
<td>VSC</td>
<td>Displays the number of VIO slots used by an address space on page datasets.</td>
</tr>
<tr>
<td>WKST</td>
<td>Displays working set size in K.</td>
</tr>
<tr>
<td>WSSI</td>
<td>Displays working set size at last swap in.</td>
</tr>
</tbody>
</table>
Address space time information commands

- **ELAP**: Displays elapsed time for address space.
- **THNK**: Displays TSO think time.
- **THNK**: Displays system think time for logical swapping.
- **TLTW**: Displays time since last terminal wait.
- **TMCP**: Displays time since last CPU usage evaluation.
- **TMIO**: Displays time since last I/O usage evaluation.
- **TMLA**: Displays time since last analysis by SRM.
- **TMLR**: Displays length of the last transaction.
- **TMPL**: Displays time since last swap.
- **TMLW**: Displays time since last evaluation by Workload Manager.
- **WAIT2**: Controls synchronization of a cross system/memory collector with the director.
- **WAIT2**: Displays the time an address space has been waiting.
- **WATL**: Displays step wait time limit.

Address space workload profile facility commands

- **EPCE**: Displays estimated percent of completion.
- **EPRE**: Displays estimated percent of time remaining before job completion.
- **ETAE**: Displays estimated time of completion.
- **ETRE**: Displays estimated time remaining before job will complete.

Address space minor--authorized commands

- **MCTL**: Specifies CPU time limit for an address space.
- **MNSW**: Marks an address space specified on the major command nonswappable by the SRM.
- **MSWP**: Marks an address space specified on the major command swappable by the SRM.
- **SWPI**: Causes the SRM to swap in an address space.
- **SWPO**: Causes the SRM to swap out an address space.
- **TADR**: Displays the unit address for the terminal of a TSO use.
- **TSNM**: Displays the symbolic name of a TSO terminal.
APF authorization commands

.APF Displays whether the current OMEGAMON session is APF authorized.
APFU Updates the Authorized Program Facility (APF) library list.
ALIBnn Displays the APF library names and volumes.

Applications tuning commands

ICPU Displays the CPU activity within an address space.
INSP Displays the sampling parameters and status of the applications tuning facility.
MLIB Specifies the INSP module libraries.

Authorized commands

Address space minor--authorized commands

MCTL Specifies CPU time limit for an address space.
MNSW Marks an address space specified on the major command nonswappable by the SRM.
MSWP Marks an address space specified on the major command swappable by the SRM.
SWPI Causes the SRM to swap in an address space.
SWPO Causes the SRM to swap out an address space.
TADR Displays the unit address for the terminal of a TSO user.
TSNM Displays the symbolic name of a TSO terminal.

Collecting data about address space authorized commands

AMAP Displays a map of virtual storage utilization in the private area.
DATA Displays data space and Hiperspace™ utilization.
DATA2 Displays detailed dataset information for one or all SEEKs.
DDNS Displays information about allocated ddnames.
JOBS Displays values available from the private area.
MODS Displays information about the modules currently loaded into the user’s jobpack area.
PEEK Collects information about a single address space.
STEP2 Displays stepname.
STEP3 Displays private area storage utilization.
Color options, setting

.SC  Sets display color or highlighting for text and commands by type.

Console-related authorized commands

.ACTN  Displays lines from the screen that require some action.

.CONS  Displays the console image for the specified console.

.CONU  Locates the output buffer for an MVS operator console.

.LINE  Displays the last nn lines from the console you select.

.MNT  Displays mount messages that require operator action.

.OCMD  Issues MVS and JES2 operator commands from an OMEGAMON terminal.

.RCMD  Routes MVS and JES2 commands to a desired system in a sysplex.

Data space and hiperspace storage authorized commands

.DSA  Sets and displays authorization to list and/or zap non-shareable data-only spaces.

.OSPC  Lists the attributes of the owner of a data-only space.

.SCHN  Scans data-only space control blocks for a string of data.

.SLST  Displays bytes of memory from data-only space storage.

.SSCN  Scans data-only space storage for the occurrence of a string of data.

.SZAP  Modifies the contents of data-only space storage.

Find users of a device authorized commands

.DSTA  Displays details of the data FNDU collected.

.DSPC  Displays dataspace utilization (in pages) by an address space.

.DSPC  Displays only those allocations that are currently closed.

.DSCO  Displays only those allocations that are currently open.

.FNDU  Finds all users of a device.

.WSIZnn Alters the work area size for FNDU data.
Immediate miscellaneous authorized commands

.APF Displays whether the current OMEGAMON session is APF authorized.
MDEF Defines names for addresses.
.RMF Displays Resource Measurement Facility information.

Program library facilities authorized commands

ALIBnn Displays the APF library names and volumes.
APFU Updates the Authorized Program Facility (APF) library list.
LPAM Adds, deletes, or lists directory members in the link pack area.

SEEK contention analysis authorized commands

DATA2 Displays detailed dataset information for one or all SEEKs.
PLOT Graphically displays SEEK contention for a specified device.
SEEK Displays DASD SEEK contention information for a specified device.
WSIZnnn Controls the size of the work area used for the DATA minor of SEEK.

Storage display authorized commands

MLST Displays bytes of memory from the common area or the OMEGAMON private storage area.
XMLS Displays storage from MVS address spaces.

Storage modification authorized commands

MZAP Modifies the contents of the common area or of the OMEGAMON private storage area.
XMZP Modifies another user’s private storage area.

Storage scan authorized commands

Commands and Keywords

MASCN Scans storage for a string of data and displays the location.
XMCH Scans tables in the MVS address space.
XMSC Scans storage in the MVS address space for a string of data.
Terminating an address space authorized command

**Commands and Keywords**

Terminates an address space.

**Automatic screen facility commands**

/LOG
Sends the current OMEGAMON REPORT log or the XLFLGLOG to the printer.

OPTN
Sets session control and display options.

XACB
Sets or displays exception thresholds and attributes.

**Block Paging Commands**

**Address space**

JBIA
Displays the number of blocks paged in from auxiliary storage.

JBIE
Displays the number of blocks moved in from expanded storage.

JBOA
Displays the number of blocks paged out to auxiliary storage.

JBOE
Displays the number of blocks moved out to expanded storage.

JEBI
Displays the number of blocked pages moved in from expanded storage.

JEBO
Displays the number of blocked pages moved out to expanded storage.

JPBI
Displays the number of blocked pages paged in from auxiliary storage.

JPBO
Displays the number of blocked pages paged out to auxiliary storage.

JPIN
Displays the number of pages moved in from expanded storage.

JPOT
Displays the number of pages moved out to expanded storage.

**System operation information**

SBIA
Displays number of blocks moved in from auxiliary storage.

SBIE
Displays number of blocks moved in from expanded storage.

SBTA
Displays number of blocks stolen and moved to auxiliary storage.

SBTE
Displays number of blocks stolen and moved to expanded storage.

SMIG
Displays number of pages eligible for expanded storage.

SPIA
Displays number of blocked pages moved in from auxiliary storage.

SPIE
Displays number of blocked pages moved in from expanded storage.

SSPI
Displays number of pages paged-in on demand from expanded storage.

SSPO
Displays number of pages stolen and moved to expanded storage.
**SSTA**
Displays number of blocked pages stolen and moved to auxiliary storage.

**SSTE**
Displays number of blocked pages stolen and moved to expanded storage.
Collecting data about address spaces--authorized commands

AMAP Displays a map of virtual storage utilization in the private area.
DATA Displays data space and Hiperspace\textcopyright utilization.
DATA2 Displays detailed dataset information for one or all SEEKs.
DDNS Displays information about allocated ddnames.
JOBS Displays values available from the private area.
MODS Displays information about the modules currently loaded into the user’s jobpack area.
PEEK Collects information about a single address space.
SUBP Displays information about current virtual storage allocations.
TCBS Displays the current TCB structure for the target user.

Color options, setting

.SCOC Sets display color or highlighting for text and commands by type.

Console-related authorized commands

ACTN Displays lines from the screen that require some action.
CONS Displays the console image for the specified console.
CONU Locates the output buffer for an MVS operator console.
LINE Displays the last \textit{nn} lines from the console you select.
MNT Displays mount messages that require operator action.
OCMD Issues MVS and JES2 operator commands from an OMEGAMON terminal.
RCMD Routes MVS and JES2 commands to a desired system in a sysplex.

Control block display commands

ASCBnn Dumps address space control block (ASCB) for ASID \textit{nn}.
ASMV Dumps Auxiliary Storage Manager Vector Table.
ASVT Dumps Address Space Vector Table.
ASVT Displays status of Address Space Vector Table slots.
ASXBnn Dumps address space extension block (ASXB) for ASID.
CCT Dumps SRM CPU Management Control Table.
CMCT Dumps Channel Measurement Control Table.
CPMT Dumps Channel Path Measurement Table.
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD</td>
<td>Dumps Common System Data area.</td>
</tr>
<tr>
<td>CVT</td>
<td>Dumps Communications Vector Table.</td>
</tr>
<tr>
<td>DMDTnn</td>
<td>Dumps Domain Descriptor Table.</td>
</tr>
<tr>
<td>DUMP</td>
<td>Displays dumps of control blocks as specified by its minors.</td>
</tr>
<tr>
<td>GDA</td>
<td>Dumps Global Data Area.</td>
</tr>
<tr>
<td>GVT</td>
<td>Dumps GRS Vector Table.</td>
</tr>
<tr>
<td>ICHP</td>
<td>Dumps Installed channel path table.</td>
</tr>
<tr>
<td>ICT</td>
<td>Dumps SRM I/O Management Control Table.</td>
</tr>
<tr>
<td>LCCAnn</td>
<td>Dumps logical configuration communication area (LCCA) for processor nn.</td>
</tr>
<tr>
<td>LSCT</td>
<td>Dumps logical swap control table.</td>
</tr>
<tr>
<td>MCT</td>
<td>Dumps SRM Storage Management Control Table.</td>
</tr>
<tr>
<td>OUCBnn</td>
<td>Dumps SRM UCB for ASID nn.</td>
</tr>
<tr>
<td>OUXBnn</td>
<td>Dumps SRM user extension block for ASID nn.</td>
</tr>
<tr>
<td>PAREnn</td>
<td>Dumps ASM paging activity reference table entry nn.</td>
</tr>
<tr>
<td>PART</td>
<td>Dumps ASM paging activity reference table.</td>
</tr>
<tr>
<td>PCCAnn</td>
<td>Dumps physical configuration communication area nn.</td>
</tr>
<tr>
<td>PCT</td>
<td>Dumps ASM performance characteristics table.</td>
</tr>
<tr>
<td>PGDT</td>
<td>Dumps performance group descriptor table.</td>
</tr>
<tr>
<td>PGVT</td>
<td>Dumps performance group vector table.</td>
</tr>
<tr>
<td>PSAAn</td>
<td>Dumps Prefixed Storage Area for the processor specified.</td>
</tr>
<tr>
<td>PVT</td>
<td>Dumps RSM Paging Vector Table.</td>
</tr>
<tr>
<td>RABCnn</td>
<td>Dumps Real Storage Manager (RSM) address space block for ASID nn.</td>
</tr>
<tr>
<td>RCE</td>
<td>Dumps RSM Control and Enumeration area.</td>
</tr>
<tr>
<td>RCT</td>
<td>Dumps SRM Resource Control Table.</td>
</tr>
<tr>
<td>RIT</td>
<td>Dumps RSM Internal Table.</td>
</tr>
<tr>
<td>RMCA</td>
<td>Dumps SRM Control Area.</td>
</tr>
<tr>
<td>RMCT</td>
<td>Dumps SRM Control Table.</td>
</tr>
<tr>
<td>RMPT</td>
<td>Dumps SRM Parameter Table.</td>
</tr>
<tr>
<td>SAREnn</td>
<td>Dumps Swap Activity Reference Table entry.</td>
</tr>
<tr>
<td>SART</td>
<td>Dumps Swap Activity Reference Table.</td>
</tr>
<tr>
<td>SCVT</td>
<td>Dumps Secondary Communication Vector Table.</td>
</tr>
<tr>
<td>SPL</td>
<td>Dumps Service Priority List.</td>
</tr>
<tr>
<td>WAMPnn</td>
<td>Dumps SRM Workload Activity Measurements Table performance group period entry.</td>
</tr>
</tbody>
</table>
Command and Keyword Groups

Controlling automated features commands

**Automatic screen facility**

/LOG  Sends the current OMEGAMON REPORT log or the XLFLOG to the printer.
OPTN  Sets session control and display options.
XACB  Sets or displays exception thresholds and attributes.

**Exception logging facility**

OPTN  Sets session control and display options.
XACB  Sets or displays exception thresholds and attributes.
/XLF OUT  Sends exception logging facility (XLF) data to the printer.
.XLFOUT  Sends Exception Logging Facility (XLF) data to the printer.

**Timed screen facility commands**

/LOG  Sends the current OMEGAMON REPORT log or the XLFLOG to the printer.
OPTN  Sets session control and display options.
.TSF  Displays and sets TSF (the Timed Screen Facility).

**CPU activity commands, address space**

CPGS  Displays CPU page-seconds.
CPU  Displays TCB time for current job step or user session.
CPU2  Displays TCB time in seconds.
CPUL  Displays job step CPU time limit.
DISP  Displays dispatching algorithm in use for a job.
DPRT  Displays dispatching priority.
DVCT  Displays device connection time in seconds (XA).
JCAF  Displays CPU affinity.
RCP%  Displays the percentage of step CPU time used.
SEQN  Displays sequence number on dispatching queue.
SRB2  Displays SRB time in seconds.

WAMT  Dumps SRM Workload Activity Measurements Table.
WMST  Dumps SRM Workload Manager Specification Table.
## Command and Keyword Groups

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRB c</td>
<td>Displays contents of LSMQ, GSMQ, or SPL.</td>
</tr>
<tr>
<td>SRBT</td>
<td>Displays SRB time in whole seconds.</td>
</tr>
<tr>
<td>TCP2</td>
<td>Displays total CPU utilization in seconds.</td>
</tr>
</tbody>
</table>

### CPU utilization immediate commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCPUnn</td>
<td>Displays CPU utilization.</td>
</tr>
<tr>
<td>SCPUnn</td>
<td>Displays address spaces using more than ( nn % ) CPU.</td>
</tr>
</tbody>
</table>

### CSA analyzer commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSAA</td>
<td>Displays common storage area information.</td>
</tr>
<tr>
<td>CSAF</td>
<td>Displays and frees orphan storage blocks.</td>
</tr>
</tbody>
</table>

### CSA analyzer-related exceptions

#### Job growth exception

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XACB</td>
<td>Sets or displays exception thresholds and attributes. (See items XJCA, XJCB, XJSA, and XJSB.)</td>
</tr>
</tbody>
</table>

#### Job usage exception

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XACB</td>
<td>Sets or displays exception thresholds and attributes. (See items XUCA, XUCB, XUSA, and XUSB.)</td>
</tr>
</tbody>
</table>

#### System growth exception

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XACB</td>
<td>Sets or displays exception thresholds and attributes. (See items XSCA, XSCB, XSSA, and XSSB.)</td>
</tr>
</tbody>
</table>

### CSA analyzer-related minor commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA</td>
<td>Displays a job’s usage of CSA.</td>
</tr>
<tr>
<td>ECSA</td>
<td>Displays a job’s usage of ECSA.</td>
</tr>
<tr>
<td>ESQA</td>
<td>Displays a job’s use of ESQA.</td>
</tr>
<tr>
<td>ESQA</td>
<td>Displays ESQA by subpool and protect key.</td>
</tr>
<tr>
<td>SQA</td>
<td>Displays a job’s usage of SQA.</td>
</tr>
<tr>
<td>SQA</td>
<td>Displays SQA by subpool and protect key.</td>
</tr>
</tbody>
</table>
Dataset information immediate commands

- **DSN**: Displays dataset label information given DSN.
- **LOC**: Displays all users of a specific dataset.

Data space and hiperspace storage--authorized commands

- **.DSA**: Sets and displays authorization to list and/or zap non-shareable data-only spaces.
- **OSPC**: Lists the attributes of the owner of a data-only space.
- **SCHN**: Scans data-only space control blocks for a string of data.
- **SLST**: Displays bytes of memory from data-only space storage.
- **SSCN**: Scans data-only space storage for the occurrence of a string of data.
- **SZAP**: Modifies the contents of data-only space storage.

Degradation analysis commands

See “DEXAN commands” on page 39.

Device information commands

Device listing commands

- **DLST**: Lists all online and offline disks.
- **.DMP**: Displays information at hex offset from ASCB or UCB.
- **GLST**: Lists esoteric and generic device names by device class.
- **TLST**: Selects all tape drives (online/offline).

Disk information commands

- **DADR**: Displays the unit address of the device.
- **DALT**: Displays number of allocations to the device.
- **DCAT**: Displays whether a device is static, installation-static, or dynamic.
- **DEV**: Selects a device (disk or tape drive).
- **DEVL**: Selects list of online disks by volser or unit address.
- **DEVP**: Selects a list of online disks using patterns set with .SPT.
- **DIO**: Displays EXCPs issued to a device (tape or disk).
- **DIOQ**: Displays I/O queue length on the disk.
- **DISK**: Selects online disks.
- **DOPN**: Displays number of open DCBs and ACBs on the device.
**Command and Keyword Groups**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPIN</td>
<td>Displays whether a device (tape or disk) is pinned.</td>
</tr>
<tr>
<td>DPLT</td>
<td>Displays disk activity every nn milliseconds.</td>
</tr>
<tr>
<td>DRES</td>
<td>Displays device reserve count from this CPU.</td>
</tr>
<tr>
<td>DSKB</td>
<td>Selects busy disks.</td>
</tr>
<tr>
<td>DSKC</td>
<td>Selects disks with suspended channel programs.</td>
</tr>
<tr>
<td>DSKE</td>
<td>Selects permanently resident disks.</td>
</tr>
<tr>
<td>DSKG</td>
<td>Selects mass storage (MSS) virtual disks.</td>
</tr>
<tr>
<td>DSKM</td>
<td>Selects disks waiting on mounts.</td>
</tr>
<tr>
<td>DSKN</td>
<td>Selects disks with volser that start with cc.</td>
</tr>
<tr>
<td>DSKP</td>
<td>Selects DASD volumes with a mount status of PUBLIC.</td>
</tr>
<tr>
<td>DSKQ</td>
<td>Selects disks with I/O queue length of nn or more.</td>
</tr>
<tr>
<td>DSKR</td>
<td>Selects disks with a RESERVE currently issued from this CPU.</td>
</tr>
<tr>
<td>DSKS</td>
<td>Selects DASD volumes with a mount status of STORAGE.</td>
</tr>
<tr>
<td>DSKU</td>
<td>Selects disks with UCBnames starting with xx.</td>
</tr>
<tr>
<td>DSKV</td>
<td>Selects DASD volumes with a mount status of PRIVATE.</td>
</tr>
<tr>
<td>DSTA</td>
<td>Displays mount status.</td>
</tr>
<tr>
<td>DTYP</td>
<td>Displays device type (tape or disk).</td>
</tr>
<tr>
<td>DUSR</td>
<td>Displays current user of device (tape or disk).</td>
</tr>
<tr>
<td>DVMP</td>
<td>Displays unit control block (UCB) hex dump for disks.</td>
</tr>
<tr>
<td>DVOL</td>
<td>Displays volser of selected device (tape or disk).</td>
</tr>
<tr>
<td>GDEV</td>
<td>Lists devices with name ccccc.</td>
</tr>
<tr>
<td>ICHP</td>
<td>Dumps installed channel path table.</td>
</tr>
<tr>
<td>OCHP</td>
<td>Displays online channel paths for the disk.</td>
</tr>
<tr>
<td>2305</td>
<td>Displays 2305 disks.</td>
</tr>
<tr>
<td>3330</td>
<td>Displays 3330 disks.</td>
</tr>
<tr>
<td>3340</td>
<td>Displays 3340 disks.</td>
</tr>
<tr>
<td>3350</td>
<td>Displays 3350 disks.</td>
</tr>
<tr>
<td>3375</td>
<td>Displays 3375 disks.</td>
</tr>
<tr>
<td>3380</td>
<td>Displays 3380 disks.</td>
</tr>
<tr>
<td>3390</td>
<td>Displays 3390 disks.</td>
</tr>
</tbody>
</table>

**Disk I/O information command**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>XDEV</td>
<td>Displays device I/O information for disks.</td>
</tr>
</tbody>
</table>
Long-term device utilization commands

Commands and Keywords

- **CCOMxx**: Displays statistics about communications devices.
- **CCTCxx**: Displays statistics about channel-to-channel adapters.
- **CDSKxx**: Displays statistics about disks.
- **CGRAxx**: Displays statistics about graphics devices.
- **CHNP**: Displays statistics about long-term channel information.
- **CONnnn**: Displays and sets thresholds for average device connect time.
- **CTAPxx**: Displays statistics about magnetic tapes.
- **CUR xx**: Displays statistics about unit record devices.
- **DSCnnn**: Sets threshold for average device disconnect time.
- **DUTnnn**: Sets threshold for average device utilization.
- **EDSK cccccc**: Displays statistics about disk information.
- **IOSnnn**: Sets threshold for average IOS queue time.
- **LCHRxxx**: Displays statistics about optical character readers.

Tape information commands

- **DCAT**: Displays whether a device is static, installation-static, or dynamic.
- **DEV**: Selects a device (disk or tape drive).
- **DIO**: Displays EXCPs issued to a device (tape or disk).
- **DPIN**: Displays whether a device (tape or disk) is pinned.
- **DPLT**: Displays disk activity every nn milliseconds.
- **DTYP**: Displays device type (tape or disk).
- **DUSR**: Displays current user of device (tape or disk).
- **DVMP**: Displays unit control block (UCB) hex dump for disks.
- **DVOL**: Displays volser of selected device (tape or disk).
- **GDEV**: Lists devices with name cccccc.
- **TAPE**: Selects all online tape drives.
- **TERP**: Displays the number of permanent read/write errors for a tape drive.
- **TERT**: Displays the number of temporary read/write errors for a tape drive.
Command and Keyword Groups

**Device listing commands**

- **DLST** Lists all online and offline disks.
- **.DMP** Displays information at hex offset from ASCB or UCB.
- **GLST** Lists esoteric and generic device names by device class.
- **TLST** Selects all tape drives (online/offline).

**Device utilization commands, long-term**

**Channel-to-channel adapter device class**

- **CCTCxx** Displays statistics about channel connected CTC adapters.
- **LCTCxxx** Displays statistics about LCU connected CTC adapters.
- **SCTCxxx** Displays statistics about string nn CTC adapters.

**Communications device class**

- **CCOMxx** Displays statistics about channel connected communications devices.
- **SCOMxxx** Displays statistics about string nn communications devices.
Command and Keyword Groups

Disks device class

- **CDSKxx**: Displays statistics about disks.
- **EDSK ccccc**: Displays statistics about disk information.
- **LDSKxxx**: Displays statistics about disks connected by LCU.
- **PDSK ccccc**: Displays statistics about disks by volser pattern.
- **SDSKxxx**: Displays statistics about disks.
- **XDSK**: Displays DASD devices which exceed certain thresholds.

Graphics device class

- **CGRAxx**: Displays statistics about graphics devices.
- **LGRAxxx**: Displays statistics about graphics devices connected by LCU.
- **SGRAxxx**: Displays statistics about graphics devices.

Magnetic device class

- **CTAPxx**: Displays statistics about magnetic tapes.
- **LTAPxxx**: Displays statistics about magnetic tape.
- **PTAP cccccc**: Displays statistics about magnetic tape devices.
- **STAPxxx**: Displays statistics about magnetic tape devices.

Miscellaneous device utilization commands

- **CHNP**: Displays statistics about long-term channel information.
- **CONnnn**: Displays and sets thresholds for average device connect time.
- **DSCnnn**: Sets threshold for average device disconnect time.
- **DUTnnn**: Sets threshold for average device utilization.
- **IOSnnn**: Sets threshold for average IOS queue time.
- **LCOMxxx**: Displays statistics about communications devices.
- **LCU xxx xxx**: Selects and supplies information about all devices attached to LCUs.
- **PNDnnn**: Sets threshold for average device pending time.
- **RSPnnn**: Sets threshold for average total device response time.
- **STAT**: Displays statistical data collected from RMF.
Command Groupings

Optical character reader device class

**Commands and Keywords**

LCHRxxx Displays statistics about optical character readers.

SCHRxxx Displays statistics about optical character readers.

Unit record device class

**Commands**

CUR xx Displays statistics about unit record devices.

LUR xxx Displays statistics about unit record devices.

SURxxx Displays statistics about unit record devices.

**DEXAN commands**

ADELnn Removes job nn or jobname from DEXAN analysis.

Type: OMEGAMON Minor command

ASEL Selects a job for DEXAN analysis and begins monitoring.

BEGN Starts DEXAN data collector.

BLST List collection buckets for display.

BOFaaa Removes DEXAN collection bucket aaa from the display.

BONaaa Selects DEXAN collection bucket aaa for display.

CENQ Controls enqueue analysis.

CLRnmm Resets the DEXAN data collector counters.

CNTnnmm Displays counts of execution states for performance group.

CNTAnn Displays counts of wait reasons for DEXAN slot number nn.

CNTFnn Displays counts of execution states for first period of performance group.

CNTJnn Displays counts of wait reasons for DEXAN slot number or jobname.

CNTS Displays counts of DEXAN wait reasons systemwide.

DEX Displays information about the status of the DEXAN data collector.

FLST Displays the performance groups for period one analysis.

FOFnnnn Removes performance group nnnn from period one analysis.

FONnnnn Selects performance group nnnn for period one analysis.
### Command and Keyword Groups

**IPRO**
Generates the Workload Impact Profile.

**Commands and Keywords**

**J2ST**
Displays current status of JES2 offset table.

**MONJnn**
Selects a job for DEXAN monitoring.

**Commands and Keywords**

**NUMFnnn**
Sets maximum number of performance groups for period one monitoring with DEXAN.

**NUMPnnn**
Sets the maximum number of performance groups DEXAN will monitor.

**PCTnnnn**
Displays execution state percentages for performance group *nnnn*.

**PCTAnn**
Displays wait reasons by percentage for job *nn*.

**PCTFnn**
Lists execution state percentages for the performance group with DEXAN slot number *nn*.

**PCTJnn**
Displays wait reasons by percentage for job *nn* or jobname.

**PLST**
Lists performance groups selected for DEXAN monitoring.

**PLTnnnn**
Plots wait reasons for performance group *nnnn*.

**PLTAnn**
Displays a plot of job degradation analysis data for DEXAN slot number.

**PLTFnn**
Plots period 1 wait reasons for the performance group with DEXAN slot number.

**PLTJnn**
Displays a plot of job degradation analysis data for DEXAN slot number or jobname.

**PLTS**
Plots DEXAN wait reasons systemwide.

**POFnnnn**
Removes performance group *nnnn* from DEXAN data collection.

**PONnnnn**
Selects performance group *nnnn* for DEXAN monitoring.

**RESM**
Restarts the DEXAN data collector.

**RSFnnnn**
Resets FOF or FON command.

**RSPnnnn**
Sets threshold for average total device response time.

**STIMnnn**
Sets the sampling interval for data collection.

**SUSP**
Suspends the data collector.

**SYNC**
Synchronizes the CLR interval with the RMF interval.

**THRS**
Limits plot output to the most important DEXAN wait reasons.

**XCTnnnn**
Shows the distribution of wait reasons across performance groups.

**XPGnnnn**
Displays execution states by percentage across performance groups.

See also “Impact analysis commands” on page 48.
Disk information commands

**DADR**
Displays the unit address of the device.

**DALC**
Displays number of allocations to the device.

**DCAT**
Displays whether a device is static, installation-static, or dynamic.

**DEV**
Selects a device (disk or tape drive).

**DEVL**
Selects list of online disks by volser or unit address.

**DEVP**
Selects a list of online disks using patterns set with .SPT.

**DIO**
Displays EXCPs issued to a device (tape or disk).

**DIOQ**
Displays I/O queue length on the disk.

**DISK**
Selects online disks.

**DOPN**
Displays number of open DCBs and ACBs on the device.

**DPIN**
Displays whether a device (tape or disk) is pinned.

**DPLT**
Displays disk activity every $nn$ milliseconds.

**DRES**
Displays device reserve count from this CPU.

**DSKB**
Selects busy disks.

**DSKC**
Selects disks with suspended channel programs.

**DSKE**
Selects permanently resident disks.

**DSKG**
Selects mass storage (MSS) virtual disks.

**DSKM**
Selects disks waiting on mounts.

**DSKN**
Selects disks with volsers that start with :hp1.cc:ehp1..

**DSKP**
Selects DASD volumes with a mount status of PUBLIC.

**DSKQ**
Selects disks with I/O queue length of $nn$ or more.

**DSKR**
Selects disks with a RESERVE currently issued from this CPU.

**DSKS**
Selects DASD volumes with a mount status of STORAGE.

**DSKV**
Selects DASD volumes with a mount status of PRIVATE.

**DSTA**
Displays mount status.

**DTYP**
Displays device type (tape or disk).

**DUSR**
Displays current user of device (tape or disk).

**DVMP**
Displays unit control block (UCB) hex dump for disks.

**DVOL**
Displays volser of selected device (tape or disk).

**GDEV**
Lists devices with name ccccc.

**ICHP**
Dumps installed channel path table.

**OCHP**
Displays online channel paths for the disk.
Command and Keyword Groups

**Disk I/O information command**

**XDEV**
Displays device I/O information for disks.

**Disk space immediate command**

**SVOL cccccc**
Displays available space on disk.

**Domain information commands**

**DMAR**
Displays number of average ready users for domains.

**DMAS.**
Displays average user service rate for domains.

**DMCI**
Displays contention index for domains.

**DMDS**
Displays total service rate for domains.

**DMGO**
Displays number of users going out of domains.

**DMIS**
Displays number of swappable users per domain in real storage.

**DMIT**
Displays average In Target MPL over the interval.

**DMIX**
Displays current values of the ESCRTABX parameter.

**DMMN**
Displays minimum MPL of domain.

**DMMX**
Displays maximum MPL of domain.

**DMNA**
Displays domain name.

**DMOQ**
Displays number of users on out queue.

**DMOT**
Displays average Out Target MPL over the interval.

**DMPL**
Displays current MPL.
Command and Keyword Groups

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMTG</td>
<td>Displays target MPL.</td>
</tr>
<tr>
<td>DMWT</td>
<td>Displays domain weighting factor.</td>
</tr>
<tr>
<td>DMXR</td>
<td>Displays maximum ready users in domain.</td>
</tr>
<tr>
<td>DOMInn</td>
<td>Selects domains starting at nn.</td>
</tr>
</tbody>
</table>

**Enqueue information immediate commands**

- **WHO**
  Displays all holders and requestors of a specific enqueue.
- **XQCB**
  Displays enqueue conflicts and RESERVEs.

**ETE commands (operator console)**

- **ETE CLRDUMP**
  Resets the flag that indicates dumps have been completed.
- **ETE DUMP**
  Creates an SVC dump tailored for ETE problem analysis.
- **ETE HELP**
  Displays available ETE subsystem commands.
- **ETE NOVERBOSE**
  Cancels the effect of the ETE VERBOSE command.
- **ETE QUIESCE**
  Shuts down ETE.
- **ETE RESET**
  Resets VTAM® interfaces and quiesces ETE subsystem and address space.
- **ETE SYSTEMS**
  Displays ETE subsystem status.
- **ETE TRACEOFF**
  Stops ETE problem determination diagnostic trace.
- **ETE TRACEON**
  Starts ETE problem determination diagnostic trace.
- **ETE USER**
  Displays all LU names being monitored by the specific product using ETE.
- **ETE USERS**
  Shows the STCNAME or JES JOBNAME, ASID, and TCB address of each product using ETE.
ETE VERBOSE

   Produces a WTO for ADD process diagnostic purposes.

Exception analysis commands

Controlling groups

XGSW   Sets exception group switch settings.

Defining exception characteristics

GDFN   Defines or lists exception groups for exception analysis.
LEXC   Sets order of exceptions for exception analysis sampling.
XACB   Sets or displays exception thresholds and attributes.
XTXT   Specifies the message to display on cycles when no exceptions have tripped.

Defining groups or mask entries for monitoring

ASG    Displays or modifies address space threshold groups.
CHNM   Displays or sets the channel path mask.
CPUM   Displays or sets the CPU mask for missing CPU exception analysis.
MTA    Displays or modifies the missing task table.

Setting special thresholds

TSR    Displays or modifies TSO response time thresholds.

Starting exception analysis

EXSY   Invokes exception analysis for all exceptions.
XAS    Invokes exception analysis for address space exceptions.
XGRP   Invokes exception analysis for the specified exception group.

Summarizing exception activity

XSUM   Displays a summary of exceptions and their current status.
XTRP   Displays a summary of tripped exceptions for a group.
Command and Keyword Groups

Exception logging facility commands

- **OPTN**: Sets session control and display options.
- **XACB**: Sets or displays exception thresholds and attributes.
- **/XLF OUT**: Sends Exception Logging Facility (XLF) data to the printer.

Exceptions command, setting

- **XACB**: Sets or displays exception thresholds and attributes.

Find users of a device—authorized commands

- **DSPA**: Displays details of the data FNDU collected.
- **DSPC**: Displays only those allocations that are currently closed.
- **DSPO**: Displays only those allocations that are currently open.
- **DSPA**: Displays details of the data FNDU collected.
- **FNDU**: Finds all users of a device.
- **WSIZnn**: Alters the work area size for FNDU data.

Frame information system commands

- **DFRS**: Displays number of deferred frame allocations.
- **FAVL**: Displays total frames on the RSM available frame queue.
- **FBDF**: Displays Bottom Double (BDF) RSM internal queue frames.
- **FBLD**: Displays BLDL list frames.
- **FCOM**: Displays common area frames.
- **FCSA**: Displays Common Service Area (CSA) frames.
- **FDFF**: Displays RSM internal deferred FREEMAIN queue frames.
- **FDRF**: Displays the number of DREF frames in real storage.
- **FDSM**: Displays storage being used by the system for data space management.
- **FDSP**: Displays real storage in use by data spaces.
- **FECM**: Displays extended common area frames.
- **FECS**: Displays extended Common Storage Area (CSA) frames.
- **FEFL**: Displays extended Fixed Link Pack Area (FLPA) frames.
- **FELS**: Displays extended Local System Queue Area (LSQA) frames.
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEML</td>
<td>Displays extended Modified Link Pack Area (MLPA) frames.</td>
</tr>
<tr>
<td>FEPL</td>
<td>Displays extended Pageable Link Pack Area (PLPA) frames.</td>
</tr>
<tr>
<td>FEPV</td>
<td>Displays extended private area frames.</td>
</tr>
<tr>
<td>FERO</td>
<td>Displays extended read-only nucleus frames.</td>
</tr>
<tr>
<td>FERW</td>
<td>Displays extended read/write nucleus frames.</td>
</tr>
<tr>
<td>FESQ</td>
<td>Displays extended SQA frames.</td>
</tr>
<tr>
<td>FFLP</td>
<td>Displays Fixed Link Pack Area (FLPA) frames.</td>
</tr>
<tr>
<td>FFLW</td>
<td>Displays RSM internal flawed frames.</td>
</tr>
<tr>
<td>FHSA</td>
<td>Displays hardware system area (HSA) frames.</td>
</tr>
<tr>
<td>FIDA</td>
<td>Displays RSM internal IDA frames.</td>
</tr>
<tr>
<td>FLSQ</td>
<td>Displays Local System Queue Area (LSQA) frames.</td>
</tr>
<tr>
<td>FMLP</td>
<td>Displays Modified Link Pack Area (MLPA) frames.</td>
</tr>
<tr>
<td>FOFL</td>
<td>Displays offline frames.</td>
</tr>
<tr>
<td>FPLP</td>
<td>Displays Pageable Link Pack Area (PLPA) frames.</td>
</tr>
<tr>
<td>FPVT</td>
<td>Displays private area frames.</td>
</tr>
<tr>
<td>FRON</td>
<td>Displays read-only nucleus frames.</td>
</tr>
<tr>
<td>FRWN</td>
<td>Displays read/write nucleus frames.</td>
</tr>
<tr>
<td>FSBF</td>
<td>Displays RSM internal SDUMP buffer frames.</td>
</tr>
<tr>
<td>FSQA</td>
<td>Displays SQA frames.</td>
</tr>
<tr>
<td>FSRS</td>
<td>Displays RSM internal SQA reserve queue frames.</td>
</tr>
<tr>
<td>FSYS</td>
<td>Displays system area frames.</td>
</tr>
<tr>
<td>FTDF</td>
<td>Displays RSM internal top double (TDF) queue frames.</td>
</tr>
<tr>
<td>FTOT</td>
<td>Displays total frames.</td>
</tr>
<tr>
<td>FUNI</td>
<td>Displays RSM internal uninitialized frames.</td>
</tr>
<tr>
<td>FUNQ</td>
<td>Displays RSM internal unqueued frames.</td>
</tr>
<tr>
<td>FVIO</td>
<td>Displays RSM internal VIO frames.</td>
</tr>
<tr>
<td>FVR</td>
<td>Displays Virtual=Real (V=R) frames.</td>
</tr>
<tr>
<td>FVRW</td>
<td>Displays RSM internal frames waiting for V=R memory.</td>
</tr>
<tr>
<td>FVV</td>
<td>Displays Virtual=Virtual (V=V) frames.</td>
</tr>
</tbody>
</table>
Command and Keyword Groups

Hiperspace commands

**HSEI**  Displays the rate or difference in the number of Hiperspace pages from expanded storage.

**HSEM**  Displays the rate or difference in the total number of Hiperspace pages moved.

**HSEO**  Displays the rate or difference in the number of Hiperspace pages written.

**HSMG**  Displays the rate or difference in the number of Hiperspace pages migrated.

**HSPI**  Displays the rate or difference in the number of Hiperspace pages paged-in.

**HSPM**  Displays the rate or difference in the total number of Hiperspace pages paged-in/out.

**HSPO**  Displays the rate or difference in the number of Hiperspace pages paged-out.

See also “Data space and hiperspace storage--authorized commands” on page 34.

Impact analysis commands

Default settings, customizing

**IACL[nn]**  Sets the interval at which the long-term buckets for Impact Analysis are reset.

**IACS[nn]**  Sets the interval at which the short-term buckets for Impact Analysis are cleared.

**IANC[nn]**  Sets the maximum number of workloads that can be monitored with Impact Analysis.

**IANQ**  Sets the enqueue sampling interval as a multiple of the normal sampling interval for Impact Analysis.

**IAST[nn]**  Specifies the sampling interval for Impact Analysis.

**IATH[nn]**  Determines the number of contenders shown on the IANL display.

**IATO**  Specifies how long the Impact Analysis collector remains active.

Impact analysis functions, controlling

**IANL**  Controls Impact Analysis functions.

Time-out facility, modifying

**IATO**  Specifies how long the Impact Analysis collector remains active.
**Workload impact profile, generating**

**IPRO**
Generates the Workload Impact Profile.

See also “DEXAN commands” on page 39.

**INFO-line and immediate commands**

..bb  
Clears rest of screen (\$ indicates a blank).

====
Draws a separator line across the screen.

/A  
See /ATTACH.

/ABORT  
Stops processing for a cross memory (XMF) collector immediately.

/ATTACH or /A  
Attaches the specified cross system session.

/ATTN  
Emulates the PA1 key.

/AUP  
Controls automatic update mode.

/AUP  
Controls automatic update mode.

/BOTTOM  
Scrolls to the bottom of the logical screen.

/CN  
Controls the specified secondary console in dedicated mode.

/D  
See /DOWN.

/D  
Deletes the specified number of lines on the physical screen.

/DCL  
Deletes all comment lines on the screen.

/DCL  
Deletes all comment lines below its entry line.

/DDb  
Deletes a block of data.

/DEF  
Inhibits automatic updating to allow screen space definition.

/DEF  
Inhibits automatic updating to allow screen space definition.

DELT  
Deletes a screen space from main storage.

DING  
Forces the terminal bell (audible signal) to sound.

/DIR  
Executes a cross memory (XMF) or cross system (XSF) director command.

/DL  
Changes the low speed mode delimiter character.

/DOWN or /D  
Scrolls down the specified number of lines.

/DSE  
Displays the status of stacked screens.

/EXM  
Lists and executes all minor commands for the preceding major command.
### Command and Keyword Groups

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>.EXP</td>
<td>Displays product expiration date.</td>
</tr>
<tr>
<td>.FGO</td>
<td>Fetches screen space ccccccc.</td>
</tr>
<tr>
<td>/G</td>
<td>See /GIVE.</td>
</tr>
<tr>
<td>/GIVE or /G</td>
<td>Gives a number of screen rows to the XMF or XSF collector.</td>
</tr>
<tr>
<td>GSCL</td>
<td>Changes the plot scale defaults.</td>
</tr>
<tr>
<td>/H</td>
<td>See /HELP.</td>
</tr>
<tr>
<td>/HELP or /H</td>
<td>Describes HELP facilities.</td>
</tr>
<tr>
<td>/HOLD</td>
<td>Controls the execution of OMEGAMON commands.</td>
</tr>
<tr>
<td>.I</td>
<td>Inserts nn blank lines.</td>
</tr>
<tr>
<td>.ILC</td>
<td>Displays INFO-line commands or their help text.</td>
</tr>
<tr>
<td>/LOG</td>
<td>Sends the current OMEGAMON REPORT log or the XLFLOG to the printer.</td>
</tr>
<tr>
<td>.LOG</td>
<td>Sends the current OMEGAMON REPORT log or the XLFLOG to the printer.</td>
</tr>
<tr>
<td>LSCR</td>
<td>Loads screen space members from the screen library to main storage.</td>
</tr>
<tr>
<td>.MFY</td>
<td>Simulates the MVS MODIFY command.</td>
</tr>
<tr>
<td>.MIN</td>
<td>Lists all minor commands for the preceding major command.</td>
</tr>
<tr>
<td>.MJ</td>
<td>Lists all major and immediate OMEGAMON commands.</td>
</tr>
<tr>
<td>.MJC</td>
<td>Lists all major commands.</td>
</tr>
<tr>
<td>.MJI</td>
<td>Lists all immediate commands.</td>
</tr>
<tr>
<td>.MMA</td>
<td>Lists all major commands for a minor command.</td>
</tr>
<tr>
<td>.MOD</td>
<td>Shows OMEGAMON module names and addresses.</td>
</tr>
<tr>
<td>.NXE</td>
<td>Controls display of exceptions.</td>
</tr>
<tr>
<td>/O</td>
<td>Prints the existing OMEGAMON REPORT log or the XLFLOG.</td>
</tr>
<tr>
<td>/PRINT or /P</td>
<td>Prints the current logical screen.</td>
</tr>
<tr>
<td>.PRM</td>
<td>Displays current values of the OMEGAMON startup command parameters.</td>
</tr>
<tr>
<td>.PRT</td>
<td>Prints the specified portion of the screen to the REPORT file.</td>
</tr>
<tr>
<td>/PWD</td>
<td>Specifies an OMEGAMON password or reauthorizes a session.</td>
</tr>
<tr>
<td>.R</td>
<td>Repeats the last major command with all following minors.</td>
</tr>
</tbody>
</table>
.RC  Repeats the last major command and all following minors.
RENM  Renames a screen space.
/REP  Replaces the existing saved screen space of the same name.
.REP  Displays and sets printer characteristics for the REPORT file.
/RESHOW  Reshows the previously saved version of the current screen space.
.RMF  Displays Resource Measurement Facility information.
.RMFS  Changes the RMF level set by OMEGAMON.
.RTN  Terminates an ASF or TSF sequence.

Commands and Keywords

/SAVE or /S  Saves the specified new screen space.
SCRN  Lists screen space member names.
.SGO  Fetches the specified screen space on the next cycle.
.SMF  Displays information about SMF datasets and exits.
.SPT  Assigns a number to a pattern value.
/STK  Saves and stacks the current screen output for later recall.
/STOP  Stops OMEGAMON.
STOP  Stops OMEGAMON.

Commands and Keywords

/TAKE  Takes screen rows from a XMF or XSF collector.
/TOP  Scrolls to the top of the logical screen.
.TSF  Displays and sets TSF (the Timed Screen Facility).
TSO  Executes TSO command or CLIST from OMEGAMON.

Commands and Keywords

/UP  Scrolls up the specified number of lines.
.VAR  Sets, displays, or deletes variables.
.VTM  Displays terminal ID and session information for all users logged onto OMEGAMON in VTAM mode.

/WAIT  Controls synchronization of a cross system or cross memory collector with the director.
Command and Keyword Groups

.Logging OMEGAMON output commands

/WAT Waits nn seconds before executing all commands below.
/XLF OUT Sends exception logging facility (XLF) data to the printer.
.XLFOUT Sends Exception Logging Facility (XLF) data to the printer.
.XLG Displays and sets printer characteristics for the Exception Logging Facility.
.ZAP Displays maintenance ZAPs applied.
/ZOOM Invokes navigational zoom feature using the cursor as a pointer.

.LPA modules immediate command

.FMOD Finds entry point of module in link pack area.

.Operational commands

See “INFO-line and immediate commands” on page 49.

.Operational parameters, setting

.SET Sets and displays operation control parameters.

.Page dataset information commands

.PADR Displays unit address of page datasets.
.PAER Displays error count of page datasets.
.PANI Displays number of IORBs built for page datasets.
PAR2  Displays the second-level qualifier of a page dataset name.
PAR3  Displays the third-level qualifier of a page dataset name.
PAR4  Displays the fourth-level qualifier of a page dataset name.
PAR5  Displays the fifth-level qualifier of a page dataset name.
PAR6  Displays the sixth-level qualifier of a page dataset name.
PAR7  Displays the seventh-level qualifier of a page dataset name.
PAR8  Displays the eighth-level qualifier of a page dataset name.
PAR9  Displays the ninth-level qualifier of a page dataset name.
PART  Selects page datasets.
PAS%  Displays percent full for page datasets.
PAST  Displays status of page datasets.
PASZ  Displays size of page datasets in slots.
PATM  Displays average page I/O time in milliseconds for page datasets.
PATP  Displays type of page dataset.
PAVL  Displays available slots for page datasets.
PAVS  Displays volume serial of DASD.
PDVT  Displays device type of the page dataset.
PSIO  Displays total SIOs issued for page dataset.
PXFR  Displays total pages transferred for page dataset.

Paging information commands

Multiplot commands

MPAGnn  Displays paging rates by address space, performance group, and page dataset > nn pages/second.
MPGInn  Displays page-ins by address space, performance group, and page dataset > nn page-ins/second.

System commands

SPAL  Displays the rate of total paging per second.
SPC  Displays the rate of common area paging.
SPCI  Displays the rate of common area page-ins.
SPR  Displays the rate of total page reclaims.
SPS  Displays the rate of system area paging.
Command and Keyword Groups

SPSV   Displays the rate of system VIO paging.
SPWS   Displays the rate of swap paging.
Performance group information commands

- **PRCP**  
  Displays CPU service units.
- **PRDnnn**  
  See PRDInn.
- **PRDInn**  
  Selects all periods in performance group nn.
- **PRDM**  
  Displays domain number for this period.
- **PRIO**  
  Displays I/O service units.
- **PRMS**  
  Displays MSO service units.
- **PROB**  
  Displays objective number for this period.
- **PRSP**  
  Displays average response time.
- **PRSU**  
  Displays total service units in period.
- **PRSW**  
  Displays number of swaps in period.
- **PRTR**  
  Displays number of transactions in period.
- **PRWL**  
  Displays workload level of all transactions for period.

Performance group period information commands

- **PGRnnn**  
  See PGRPnn.
- **PGRPnn**  
  Selects performance group nn to monitor.
- **PRD#nn**  
  Displays monitoring information on TSO period nn.

Performance group selection immediate command

- **TRGP**  
  Selects TSO performance group to monitor.

Plot scale command

- **GSCL**  
  Changes the plot scale defaults.

Print output options commands

- **COPY**  
  Specifies the number of copies to print.
- **DDNM**  
  Directs the output to a particular ddname.
- **DEST**  
  Specifies the destination that is to receive the output.
- **DSTU**  
  Specifies the destination user ID to receive a report.
- **FOLD**  
  Changes lowercase characters to uppercase.
- **FORM**  
  Specifies the name of the form on which to print.
HOLD Controls the execution of OMEGAMON commands.

ID1 Requests separator pages and page headers that identify output from different OMEGAMON sessions.

ID2 Defines up to 16 characters on the left of separator page.

ID3 Defines up to 16 characters in the center of separator page.

ID4 Defines up to 16 characters on the right of the separator page.

LNCT Sets the number of lines per page for the REPORT or XLFILOG file output.

OUTP Controls the characteristics of log files.

SOUT Removes control from a sequential dataset and directs it to the specified SYSOUT class.

Profile maintenance commands

IPRF Saves or deletes the installation-defined default profile.

PPRF Saves, deletes, comments, or lists the user’s session profile.

Program library facilities--authorized commands

ALIBnn Displays the APF library names and volumes.

APFU Updates the Authorized Program Facility (APF) library list.

LPAM Adds, deletes, or lists directory members in the link pack area.

Response time, TSO

See “TSO response time analysis command” on page 69.
SEEK contention analysis--authorized commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA2</td>
<td>Displays detailed dataset information for one or all SEEKs.</td>
</tr>
<tr>
<td>PLOT</td>
<td>Graphically displays SEEK contention for a specified device.</td>
</tr>
<tr>
<td>SEEK</td>
<td>Displays DASD SEEK contention information for a specified device.</td>
</tr>
<tr>
<td>WSIZnnn</td>
<td>Controls the size of the work area used for the DATA minor command of SEEK.</td>
</tr>
</tbody>
</table>

Session control and display options

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPTN</td>
<td>Sets session control and display options.</td>
</tr>
</tbody>
</table>

SRM activity commands, address space

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HUIC</td>
<td>Displays highest unreferenced interval count for this address space.</td>
</tr>
<tr>
<td>JPCI</td>
<td>Displays address space common area page-ins.</td>
</tr>
<tr>
<td>JPGR</td>
<td>Displays page reclaims for address space.</td>
</tr>
<tr>
<td>JPGS</td>
<td>Displays pages stolen from address space.</td>
</tr>
<tr>
<td>JPUI</td>
<td>Displays address space page-ins.</td>
</tr>
<tr>
<td>JPUO</td>
<td>Displays address space page-outs.</td>
</tr>
<tr>
<td>JRCM</td>
<td>Displays composite job recommendation value.</td>
</tr>
<tr>
<td>JRCP</td>
<td>Displays CPU manager recommendation value.</td>
</tr>
<tr>
<td>JRIO</td>
<td>Displays I/O manager recommendation value.</td>
</tr>
<tr>
<td>JRST</td>
<td>Displays storage manager recommendation value.</td>
</tr>
<tr>
<td>JRWL</td>
<td>Displays workload manager recommendation value.</td>
</tr>
<tr>
<td>SUAL</td>
<td>Displays total service units since the last swap-in.</td>
</tr>
<tr>
<td>SUCP</td>
<td>Displays CPU service units since the last swap-in.</td>
</tr>
<tr>
<td>SUIO</td>
<td>Displays I/O service units since the last swap-in.</td>
</tr>
<tr>
<td>SUMS</td>
<td>Displays Main Storage Occupancy (MSO) service units.</td>
</tr>
<tr>
<td>SUPR</td>
<td>Displays service units at beginning of period.</td>
</tr>
<tr>
<td>SWPR</td>
<td>Displays swap reason.</td>
</tr>
</tbody>
</table>

SRM information commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPGR</td>
<td>Displays common area page-in rate.</td>
</tr>
<tr>
<td>CWSS</td>
<td>Displays common area target working set size in frames.</td>
</tr>
</tbody>
</table>
LAFQ Displays available frame queue count and threshold for logical swap think time adjustment.

LUIC Displays unreferenced interval count and threshold for logical swap think time adjustment.

RASQ Displays ASM queue length.

RBEL Displays percent of real storage below 16M fixed.

RCPD Displays CPU utilization thresholds for demand paging analysis.

RCPU Displays CPU utilization.

RCT Provides title line.

RCTA Displays current SRM averages.

RCTH Displays current SRM high thresholds.

RCTI Displays number of samples (ESA).

RCTL Displays current SRM low thresholds (ESA).

RDPG Displays demand paging rate.

RPAG Displays page fault rate.

RPDD Displays page delay time thresholds for demand paging analysis.

RPDL Displays paging delay time in milliseconds.

RREA Displays percent of total real storage fixed.

RTPG Displays total paging rate.

RTPI Displays percent of I/O interrupts handled via TPI.

RUIC Displays unreferenced interval count.

THNK Displays system think time for logical swapping.

Storage activity commands, address space

CSA Displays a job’s usage of CSA.

DSPC Displays dataspace utilization (in pages) by an address space.

Commands and Keywords

ESFC Number of frames of expanded storage used by address space.

ESQA Displays a job’s use of ESQA.

FIXF Displays number of fixed frames for swapped-out user.

FMCT Displays total frame count of a swapped in address space.

FXFB Displays number of fixed frames in storage below the 16M line.

FXFR Displays number of fixed frames in storage.
**Command and Keyword Groups**

**Storage display authorized commands**

- **NVSC**  
  Displays non-VIO slots held.

- **SQA**  
  Displays a job’s usage of SQA.

- **TWSF**  
  Displays target working set size in frames.

- **TWSS**  
  Displays target working set size in K (1024 bytes).

- **VSC**  
  Displays the number of VIO slots used by an address space on page datasets.

- **WKST**  
  Displays working set size in K.

- **WSSI**  
  Displays working set size at last swap in.

**Storage modification authorized commands**

- **MLST**  
  Displays bytes of memory from the common area or the OMEGAMON private storage area.

- **XMLS**  
  Displays storage from MVS address spaces.

**Storage scan authorized commands**

- **Commands and Keywords**  
  Scans tables in the common area or in the OMEGAMON private storage area for a string of data.

- **MSCN**  
  Scans storage for a string of data and displays the location.

- **XMCH**  
  Scans tables in the MVS address space.

- **XMSC**  
  Scans storage in the MVS address space for a string of data.
Swap count system commands

SCAL  Displays the rate of physical swap-outs in pages/second.
SCDW  Displays the rate of swap-outs due to detected waits in pages/second.
SCEX  Displays the rate of physical swap-outs due to exchange swaps in pages/second.
SCLF  Displays the rate of attempted logical swaps.
SCLS  Displays the rate of logical swap-outs.
SCLW  Displays the rate of swap-outs due to long waits.
SCNQ  Displays the rate of physical swap-outs due to enqueue swaps.
SCRQ  Displays the rate of physical swap-outs due to request swaps.
SCRS  Displays the rate of physical swap-outs due to RSM swaps.
SCTI  Displays the rate of swap-outs due to terminal input swaps.
SCTO  Displays the rate of swap-outs due to terminal output swaps.
SCST  Displays the rate of physical swap-outs due to TRANSWAP swaps.
SCUS  Displays the rate of physical swap-outs due to unilateral swaps.
SCXS  Displays the rate of physical swap-outs due to ASM swaps.

Swapping information commands

SADR  Displays unit address of each swap dataset.
SAER  Displays error count of each swap dataset.
SART  Selects swap dataset.
SAS%  Displays percent of swap datasets used.
SAST  Displays swap status of swap datasets.
SASZ  Displays size in swap sets.
SAVL  Displays available swap sets.
SAVS  Displays volume serial of DASD.
SDVT  Displays device type of the swap dataset.
SRCT  Displays swap reason counts by type.
SSRT  Displays swap dataset response time.

System information immediate commands

LPARnn Displays data about logical partitions and their management overhead.
MDFD  Displays data about Amdahl™. Multiple Domain Facility™.
### System operation information commands

#### Block paging commands
- **SBIA**: Displays number of blocks moved in from auxiliary storage.
- **SBIE**: Displays number of blocks moved in from expanded storage.
- **SBTA**: Displays number of blocks stolen and moved to auxiliary storage.
- **SBTE**: Displays number of blocks stolen and moved to expanded storage.
- **SMIG**: Displays number of pages eligible for expanded storage.
- **SPIA**: Displays number of blocked pages moved in from auxiliary storage.
- **SPIE**: Displays number of blocked pages moved in from expanded storage.
- **SSPI**: Displays number of pages paged-in on demand from expanded storage.
- **SSPO**: Displays number of pages stolen and moved to expanded storage.
- **SSTA**: Displays number of blocked pages stolen and moved to auxiliary storage.
- **SSTE**: Displays number of blocked pages stolen and moved to expanded storage.

#### Frame information commands
- **DFRS**: Displays number of deferred frame allocations.
- **FAVL**: Displays total available frames.
- **FBDF**: Displays Bottom Double (BDF) RSM internal queue frames.
- **FBLD**: Displays BLDL list frames.
- **FCOM**: Displays common area frames.
- **FCSA**: Displays Common Service Area (CSA) frames.
- **FDFF**: Displays RSM internal deferred FREEMAIN queue frames.
- **FDRF**: Displays the number of DREF frames in real storage.
- **FDSM**: Displays storage being used by the system for data space management.
- **FDSP**: Displays real storage in use by data spaces.
- **FECM**: Displays extended common area frames.
- **FECS**: Displays extended Common Storage Area (CSA) frames.
- **FEFL**: Displays extended Fixed Link Pack Area (FLPA) frames.
- **FELS**: Displays extended Local System Queue Area (LSQA) frames.
- **FEML**: Displays extended Modified Link Pack Area (MLPA) frames.
- **FEPL**: Displays extended Pageable Link Pack Area (PLPA) frames.
Hiperspace commands

HSEI  Displays the rate or difference in the number of Hiperspace pages from expanded storage.
HSEM  Displays the rate or difference in the total number of Hiperspace pages moved.
HSEO  Displays the rate or difference in the number of Hiperspace pages written.
HSMG  Displays the rate or difference in the number of Hiperspace pages migrated.
HSPI  Displays the rate or difference in the number of Hiperspace pages paged-in.
Command and Keyword Groups

Miscellaneous system information minor commands

- **HSPM**
  Displays the rate or difference in the total number of Hiperspace pages paged-in/out.

- **HSPO**
  Displays the rate or difference in the number of Hiperspace pages paged-out.

- **ALIBnn**
  Displays the APF library names and volumes.

- **ASVT**
  Displays status of Address Space Vector Table slots.

- **CPID**
  Displays CPU ID (XA).

- **ENV**
  Displays system environmental information.

- **LLT**
  Displays link list libraries and their APF-authorization status.

- **LPAT**
  Displays list of libraries concatenated to SYS1.LPALIB.

- **LSFR**
  Displays number of real frames allocated to logically swapped address spaces.

- **LSNW**
  Displays number of logically swapped address spaces due to non-terminal waits.

- **LSTW**
  Displays number of logically swapped address spaces due to terminal input or output waits.

- **PPT**
  Displays a list of programs in the Program Properties Table.

- **SMPP**
  Displays average time to transfer a swap page in milliseconds.

- **SQDC**
  Displays SQA deficit count.

- **SQRV**
  Displays number of times SQA reserve pool used.

- **SRB c**
  Displays contents of LSMQ, GSMQ, or SPL.

- **SVC nnn,m**
  Displays address of SVC.

- **SVCXxx,m**
  Displays address of SVC.

Paging commands

- **PART**
  Selects page datasets.

- **SPAL**
  Displays the rate of total paging per second.

- **SPC**
  Displays the rate of common area paging.

- **SPCI**
  Displays the rate of common area page-ins.

- **SPR**
  Displays the rate of total page reclaims.

- **SPS**
  Displays the rate of system area paging.

- **SPSV**
  Displays the rate of system VIO paging.

- **SPWS**
  Displays the rate of swap paging.
SRM information commands

- **CPGR** Displays common area page-in rate.
- **CWSS** Displays common area target working set size in frames.
- **LAFQ** Displays available frame queue count and threshold for logical swap think time adjustment.
- **LUIC** Displays unreferenced interval count and threshold for logical swap think time adjustment.
- **RASQ** Displays ASM queue length.
- **RBEL** Displays percent of real storage below 16M fixed.
- **RCPD** Displays CPU utilization thresholds for demand paging analysis.
- **RCPU** Displays CPU utilization.
- **RCT** Provides title line.
- **RCTA** Displays current SRM averages.
- **RCTH** Displays current SRM high thresholds.
- **RCTI** Displays number of samples (ESA).
- **RCTL** Displays current SRM low thresholds (ESA).
- **RDPG** Displays demand paging rate.
- **RPAG** Displays page fault rate.
- **RPDD** Displays page delay time thresholds for demand paging analysis.
- **RPDL** Displays paging delay time in milliseconds.
- **RREA** Displays percent of total real storage fixed.
- **RTPG** Displays total paging rate.
- **RTPI** Displays percent of I/O interrupts handled via TPI.
- **RUIC** Displays unreferenced interval count.
- **THNK** Displays system think time for logical swapping.

Swap count commands

- **SCAL** Displays the rate of physical swap-outs in pages/second.
- **SCDW** Displays the rate of swap-outs due to detected waits in pages/second.
- **SCEX** Displays the rate of physical swap-outs due to exchange swaps in pages/second.
- **SCLF** Displays the rate of attempted logical swaps.
- **SCLS** Displays the rate of logical swap-outs.
- **SCLW** Displays the rate of swap-outs due to long waits.
- **SCNQ** Displays the rate of physical swap-outs due to enqueue swaps.
- **SCRQ** Displays the rate of physical swap-outs due to request swaps.
<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCRS</td>
<td>Displays the rate of physical swap-outs due to RSM swaps.</td>
</tr>
<tr>
<td>SCTI</td>
<td>Displays the rate of swap-outs due to terminal input swaps.</td>
</tr>
<tr>
<td>SCTO</td>
<td>Displays the rate of swap-outs due to terminal output swaps.</td>
</tr>
<tr>
<td>SCTS</td>
<td>Displays the rate of physical swap-outs due to TRANSWAP swaps.</td>
</tr>
<tr>
<td>SCUS</td>
<td>Displays the rate of physical swap-outs due to unilateral swaps.</td>
</tr>
<tr>
<td>SCXS</td>
<td>Displays the rate of physical swap-outs due to ASM swaps.</td>
</tr>
</tbody>
</table>

**System information major command**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYS</td>
<td>Displays general system information.</td>
</tr>
</tbody>
</table>

**System storage commands**

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA</td>
<td>Displays common storage area (CSA) by subpool and protect key.</td>
</tr>
<tr>
<td>CSAR</td>
<td>Displays the users of CSA real storage by storage protect key.</td>
</tr>
<tr>
<td>ECSA</td>
<td>Displays extended common storage area (ECSA).</td>
</tr>
<tr>
<td>EMAP</td>
<td>Displays map of expanded storage.</td>
</tr>
<tr>
<td>ESAV</td>
<td>Displays number of expanded storage frames and bytes available.</td>
</tr>
<tr>
<td>ESCM</td>
<td>Displays number of common area frames and bytes in expanded storage.</td>
</tr>
<tr>
<td>ESDR</td>
<td>Displays the number of DREF frames in expanded storage.</td>
</tr>
<tr>
<td>ESMG</td>
<td>Displays expanded storage migration data.</td>
</tr>
<tr>
<td>ESMV</td>
<td>Displays rate or difference in the total number of pages migrated to auxiliary storage.</td>
</tr>
<tr>
<td>ESOF</td>
<td>Displays number of expanded storage frames and bytes offline.</td>
</tr>
<tr>
<td>ESON</td>
<td>Displays number of expanded storage frames and bytes online.</td>
</tr>
<tr>
<td>ESPI</td>
<td>Displays the rate or difference in the number of pages read from expanded storage.</td>
</tr>
<tr>
<td>ESPM</td>
<td>Displays the rate or difference in the total number of pages moved-in/out of expanded storage.</td>
</tr>
<tr>
<td>ESPO</td>
<td>Displays the rate or difference in the total number of pages sent to expanded storage.</td>
</tr>
<tr>
<td>ESPR</td>
<td>Displays number of private area frames and bytes in expanded storage.</td>
</tr>
<tr>
<td>ESQA</td>
<td>Displays ESQA by subpool and protect key.</td>
</tr>
<tr>
<td>RMAP</td>
<td>Displays map of MVS/XA real memory.</td>
</tr>
<tr>
<td>SQA</td>
<td>Displays SQA by subpool and protect key.</td>
</tr>
<tr>
<td>VMAP</td>
<td>Displays map of MVS virtual storage.</td>
</tr>
</tbody>
</table>
**Command and Keyword Groups**

**TSO response time command**

**TRSP**  
Displays average TSO response time.

See also:

“Control block display commands” on page 30,
“CPU utilization immediate commands” on page 33,
“Dataset information immediate commands” on page 34,
“Disk space immediate command” on page 43,
“Domain information commands” on page 43,
“Enqueue information immediate commands” on page 44,
“GRS” on page 215. (immediate command),
“LPA modules immediate command” on page 52,
“Page dataset information commands” on page 52,
“Multiplot commands” on page 53,
“Performance group information commands” on page 55,
“Performance group period information commands” on page 55,
“Performance group selection immediate command” on page 55, and
“Swapping information commands” on page 60.

**System storage commands**

- **CSA**  
  Displays common storage area (CSA) by subpool and protect key.

- **CSAR**  
  Displays the users of CSA real storage by storage protect key.

- **ECSA**  
  Displays extended common storage area (ECSA).

- **EMAP**  
  Displays map of expanded storage.

- **ESAV**  
  Displays number of expanded storage frames and bytes available.

- **ESCM**  
  Displays number of common area frames and bytes in expanded storage.

- **ESDR**  
  Displays the number of DREF frames in expanded storage.

- **ESMG**  
  Displays expanded storage migration data.

- **ESMV**  
  Displays rate or difference in the total number of pages migrated to auxiliary storage.

- **ESOF**  
  Displays number of expanded storage frames and bytes offline.

- **ESON**  
  Displays number of expanded storage frames and bytes online.

- **ESPI**  
  Displays the rate or difference in the number of pages read from expanded storage.
Command and Keyword Groups

Table customization commands

DMN  Displays or modifies the domain name table.
PGN  Displays or modifies the performance group name table.
XQN  Displays or modifies the enqueue name table.

Tape information commands

DCAT  Displays whether a device is static, installation-static, or dynamic.
DEV   Selects a device (disk or tape drive).
DIO   Displays EXCPs issued to a device (tape or disk).
DPIN  Displays whether a device (tape or disk) is pinned.
DPLT  Displays disk activity every :hp1.nn:ehp1. milliseconds.
DTYP  Displays device type (tape or disk).
DUSR  Displays current user of device (tape or disk).
DVMP  Displays unit control block (UCB) hex dump for disks.
DVOL  Displays volser of selected device (tape or disk).
GDEV  Lists devices with name cccccc.
TAPE  Selects all online tape drives.
TERP  Displays the number of permanent read/write errors for a tape drive.
TERT  Displays the number of temporary read/write errors for a tape drive.
TLST  Displays type of label (SL, NL, NON-STD).
TSEQ  Displays the file number being accessed on an open tape.
TP16  Selects 1600 BPI tape drives.
TP38  Selects 38000 BPI tape drives.
**Command and Keyword Groups**

**TP62**  
Selects 6250 BPI tape drives.

**TP7T**  
Selects 7-track tape drives.

**TP80**  
Selects 800 BPI tape drives.

**TPAL**  
Selects allocated tape drives.

**TPBS**  
Selects busy tape drives.

**TPCU**  
Selects all online tapes.

**TPFR**  
Selects online and free tape drives.

**TPMT**  
Selects tape drives awaiting mounts.

**TPOF**  
Selects all offline tape drives.

**Terminating an address space authorized command**

**Commands and Keywords**

Terminates an address space.

**Time information commands, address space**

**ELAP**  
Displays elapsed time for address space.

**THNK**  
Displays TSO think time.

**THNK**  
Displays system think time for logical swapping.

**TLTW**  
Displays time since last terminal wait.

**TMCP**  
Displays time since last CPU usage evaluation.

**TMIO**  
Displays time since last I/O usage evaluation.

**TMLA**  
Displays time since last analysis by SRM.

**TMLR**  
Displays length of the last transaction.

**TMPD**  
Displays time in current period.

**TMSW**  
Displays time since last swap.

**TMTR**  
Displays time in transaction.

**TMWL**  
Displays time since last evaluation by Workload Manager.

**/WAIT**  
Controls synchronization of a cross system/memory collector with the director.

**WAIT2**  
Displays the time an address space has been waiting.

**WATL**  
Displays step wait time limit.
Timed screen facility command

/LOG  Sends the current OMEGAMON REPORT log or the XLFLOG to the printer.
OPTN  Sets session control and display options.
.TSF  Displays and sets TSF (the Timed Screen Facility).

TSO response time analysis command

RTA  Displays response time information for TSO users.

TSO response time system command

TRSP  Displays average TSO response time.

Tuning, applications commands

See “Applications tuning commands” on page 25.

Controlling session and display options

OPTN  Sets session control and display options.

Customizing tables

DMN  Displays or modifies the domain name table.
PGN  Displays or modifies the performance group name table.
XQN  Displays or modifies the enqueue name table.

Print Output Options Commands

COPY  Specifies the number of copies to print.
DDNM  Directs the output to a particular ddname.
DEST  Specifies the destination that is to receive the output.
DSTU  Specifies the destination user ID to receive a report.
FOLD  Changes lowercase characters to uppercase.
FORM  Specifies the name of the form on which to print.
/HOLD Controls the execution of OMEGAMON commands.
ID1  Requests separator pages and page headers that identify output from different OMEGAMON sessions.
Command and Keyword Groups

Profile maintenance commands

ID2    Defines up to 16 characters on the left of separator page.
ID3    Defines up to 16 characters in the center of separator page.
ID4    Defines up to 16 characters on the right of the separator page.
LNCT   Sets the number of lines per page for the REPORT or XLFLOG file output.
OUTP   Controls the characteristics of log files.
SOUT   Removes control from a sequential dataset and directs it to the specified SYSOUT class.

Profile maintenance commands

IPRF   Saves or deletes the installation-defined default profile.
PPRF   Saves, deletes, comments, or lists the user’s session profile.

Setting color options

.SCC    Sets display color or highlighting for text and commands by type.

Setting operational parameters

.SET    Sets and displays operation control parameters.

Wait reasons, DEXAN

BLST    List collection buckets for display.

Users of a device, finding

See “Find users of a device--authorized commands” on page 46.

Vector support commands

MVFAxx Reports on vector affinity time.
MVFCxx Reports on vector CPU utilization.
MVFUxx Reports on vector facility utilization.
Workload profile facility (WPF), address space commands

- **EPCE**  Displays estimated percent of completion.
- **EPRE**  Displays estimated percent of time remaining before job completion.
- **ETAE**  Displays estimated time of completion.
- **ETRE**  Displays estimated time remaining before job will complete.

Workload profile facility (WPF) commands

- **dWPF**  Display WPF status and list the current profiles.
- **EPCE**  Displays estimated percent of completion.
- **EPRE**  Displays estimated percent of time remaining before job completion.
- **ETAE**  Displays estimated percent of time remaining before job completion.
- **ETRE**  Displays estimated time of completion.
- **jWPF**  Displays estimated time remaining before job will complete.
- **WPF**  Displays profile information for one or more workloads.
- **WPF**  Initiates, terminates, or displays status of the Workload Profile Facility.
Numeric Commands and Keywords

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Commands and Keywords

..bb

**Type:** OMEGAMON Immediate command  
**Description:** Clears rest of screen (b indicates a blank). This command clears the entire display down to the end of the logical screen.

**Related Information:** None

====

**Type:** OMEGAMON Immediate command  
**Description:** Draws a separator line across the screen.

\[c == == aa\]

- **c** For terminals that support an extended data stream, specifies the color of the separator line. Replace the variable with the first letter of one of the seven extended colors (Red, Blue, White, Green, Pink, Yellow, or Turquoise). For four- or non-color terminals, OMEGAMON translates an entry of G or B to low intensity. All other color codes translate to high intensity.

- **aa** Any two characters you want to use for the separator line. When you invoke this command, the specified characters are repeated across the screen.

For example, this command

\[R====++\]

creates a line of red pluses across the screen.

\[===>+---------------------------------------------------------------\]

**Related Information:** None

2305

**Type:** OMEGAMON Major command  
**Description:** Displays 2305 disks. For non-base exposures, the unit address and exposure number appear instead of the volser.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

3330

**Type:** OMEGAMON Major command  
**Description:** Displays 3330 disks. An argument of 11 displays 3330-11 disks. For example: \[3330nn\]
Related Information: Major of: See Disk Information Commands in “Command Groupings” on page 17.

3340
Type: OMEGAMON Major command
Description: Displays 3340 disks.
Related Information: Major of: See Disk Information Commands in “Command Groupings” on page 17.

3350
Type: OMEGAMON Major command
Description: Displays 3350 disks. An argument of P displays the disks attached to 3880-11 or 3880-21 buffered-paging facility control units. For example: 3350c
In addition, for non-base exposures, the unit address and exposure number appear instead of the volser.
Related Information: Major of: See Disk Information Commands in “Command Groupings” on page 17.

3375
Type: OMEGAMON Major command
Description: Displays 3375 disks.
Related Information: Major of: See Disk Information Commands in “Command Groupings” on page 17.

3380
Type: OMEGAMON Major command
Description: Displays 3380 disks.
Related Information: Major of: See Disk Information Commands in “Command Groupings” on page 17.

3390
Type: OMEGAMON Major command
Description: Displays 3390 disks.
Related Information: Major of: See Disk Information Commands in “Command Groupings” on page 17.
# A Command and Keywords

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<td>96</td>
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Commands and Keywords

/A
Type: OMEGAMON INFO-line command
Description: See /ATTACH.
Related Information: None

/ABORT
Type: OMEGAMON INFO-line command
Description: Stops processing for a cross memory (XMF) collector immediately.

Caution
Use this command only in an emergency, since it does not bring the collector down cleanly. (If the collector later starts up after an /ABORT, it may crash with an unexpected program check.)

If the collector is hung and cannot stop processing a STOP command, you can then enter the /ABORT command on the INFO-line of the collector.

This command also frees up any resources the director has associated with it.

Related Information: None

ACTN
Type: OMEGAMON Minor command (Authorized)
Description: Displays only those lines from the screen that require some action. ACTN displays any line that begins with an asterisk (*). You can use this command to display any outstanding Mount or Reply messages that need attention. ACTN has no arguments. For example, to display commands that require operator action for console 3, enter:

CONSO3  Console 6A0 (ID=3)

ACTN

Related Information: Minor of: CONS and CONU
Other Console-Related minors: LINE and MNT

ADELnn
Type: OMEGAMON Minor command
**Description:** Removes job *nn* or jobname from DEXANalysis. To delete a job (or address space) from job analysis, use the ADEL command followed by the jobname or the two-digit DEXAN slot number. For example:

```
DEX >> DX0000 V750 running. Cycles=99 STIM=2.2 Elap=3.46MN <<
>BEGN >> DX1000 The Data Collector Started. Workarea size= 38512 Bytes <<
ADEL01
ADEL TCAM
```

Here, both methods of entry are shown, ADEL01 and ADEL TCAM.

```
DEX >> DX0000 V&RELO. running. Cycles=25 STIM=2.2 Elap=3.46MN <<
>BEGN >> DX1000 The Data Collector Started. Workarea size= 38512 Bytes <<
ADEL01 JOB1 >> DX1050 Entry will be deleted. <<
ADEL02 TCAM >> DX1050 Entry will be deleted. <<
```

These two address spaces are no longer included in job analysis.

**Related Information:** Minor of: DEX

Other DEXAN minors: ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

**AENV**

**Type:** OMEGAMON Minor command

**Description:** Displays graphic display for a given user. AENV displays graphic environmental data over both the last interval and the last 20 intervals. For example:

<table>
<thead>
<tr>
<th>JOBN</th>
<th>IMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AENV</td>
<td>System Data- Short</td>
</tr>
<tr>
<td></td>
<td>0.1.2.3.4.5.6.7.8.9.0</td>
</tr>
<tr>
<td>+</td>
<td>TCB Time(%) 25.3</td>
</tr>
<tr>
<td>+</td>
<td>SRB Time(%) 9.7</td>
</tr>
<tr>
<td>+</td>
<td>SU’s/sec__ 131.4</td>
</tr>
<tr>
<td>+</td>
<td>Page-ins/s_ 3.8</td>
</tr>
<tr>
<td>+</td>
<td>Page-outs/s_ 2.8</td>
</tr>
<tr>
<td>+</td>
<td>1/O’s/sec__ 7.2</td>
</tr>
<tr>
<td>+</td>
<td>Working Set 1400K</td>
</tr>
<tr>
<td>+</td>
<td>Pg-in/CPU-s 12.5</td>
</tr>
</tbody>
</table>

The page-in and page-out rates are in seconds. Pg-in/CPU-s are the number of page-ins per second while the task has control of the CPU.

The middle (short-term) portion of the display represents the last OMEGAMON cycle; the right (long-term) portion represents a running average of the previous 20 OMEGAMON cycles. The last column of the long-term display indicates:

- **+** Indicates the trend is upward
- **-** Indicates the trend is downward
- **blank** Indicates there is no change
Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Environment minor: TRACnn
**ALInnn**

**Type:** OMEGAMON Minor command

**Description:** See ALIBnn.

**Related Information:** None

**ALIBnn**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays the authorized program facility (APF) library names and volumes.

```
SYS   >> IPS=83,OPT=83,ICS=83 <<
ALIB  Size of the APF table is 1720 bytes, it contains 75 entries
+     System Libraries
+     MVS999  SYS1.LINKLIB
+     MVS999  SYS1.SVCLIB
+     User Libraries
+     MVS999  MY DASSET
```

The format of this command is ALIBnn or ALInnn. The two or three digit operand suppresses the display of the first nn or nnn entries in the list. This is useful if all of the dataset names do not fit on one screen.

**Related Information:** Minor of: SYS

Other Program Library Facilities Commands: APFU and LPAM

**ALLJ**

**Type:** OMEGAMON Major command

**Description:** Selects all address spaces in ASID order. Address spaces may be further broken down into three types:

- **Batch jobs** BATJ command
- **Started tasks** STCJ command
- **TSO users** TSOJ command

In addition to all active address spaces, ALLJ shows idle initiators as INIT.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

**ALST**

**Type:** OMEGAMON Minor command

**Description:** Displays jobs being analyzed by DEXAN. The ALST display shows:
- The time when monitoring started.
Either the elapsed time of the monitoring or the time when the monitoring ended. This means that the job completed while being monitored, not that you ended monitoring. Note that if ADEL was used to stop monitoring, that job would not be displayed.

The number of samples collected (items) shows whether statistical significance has been reached. For statistical significance, this number should be at least 30.

For example:

```
DEX >> V750 running. Cycles=25 STIM=2.2 Elap=3.46MN <<
>BEGN >> The Data Collector Started. Workarea size= 38512 Bytes <<
ALST
```

ALST displays monitored jobs with their DEXANDEXAN slot number.

```
DEX >> DX0000 V750 running. Cycles=99 STIM=2.2 Elap=3.46MN <<
>BEGN >> DX1000 The Data Collector Started. Workarea size= 38512 Bytes <<
ALST01 JOB1    >> DX1600 Collection started 7:03:04, elap 1:24 MN, items=39 <<
 +   02 TCAM    >> DX1600 Collection started 7:04:02, ended 2:34 MN, items=53 <<
```

This example shows that two address spaces have been selected for job analysis. Of these, TCAM has already terminated, so only JOB1 is still running and being monitored.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnnn, PCTFnnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnnn, PLTJnn, PLTS, POFnnnn, PONnnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnnn, and XPnnnnn

**AMAP**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays a map of virtual storage utilization within the private area. The AMAP minor command of PEEK displays a map of virtual storage utilization within the private area. This map indicates the maximum region available, the portion currently in use, and various areas within the region.

The AMAP display for XA and ESA shows all virtual storage, or you can limit the map to storage above or below the 16M line with an A or B argument as shown.

```
PEEK    USER01  ASID=46, collected at 15:39:39
amap <map all virtual storage>
amapA <map virtual storage above the 16M line> (XA and ESA)
amapB <map virtual storage below the 16M line>
```
The following figure shows the AMAP display format for XA and ESA.
### Area descriptions for storage above the 16M line:

<table>
<thead>
<tr>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highest 31-bit address</strong></td>
<td>The highest possible address in 31-bit architecture.</td>
</tr>
<tr>
<td><strong>Top of extended private</strong></td>
<td>Highest address within the extended private area.</td>
</tr>
<tr>
<td><strong>ELSQ/A/SWA unallocated</strong></td>
<td>The amount of storage not currently allocated within the extended system area.</td>
</tr>
<tr>
<td><strong>Fragmented free space</strong></td>
<td>The amount of free storage within allocated pages of the extended system area.</td>
</tr>
<tr>
<td><strong>Current bottom of ELSQ/A/SWA</strong></td>
<td>Lowest address allocated within the extended private area for the extended system area.</td>
</tr>
<tr>
<td><strong>Avail. for ELSQ/A/SWA only</strong></td>
<td>The amount of unallocated storage between the current bottom of the extended system area and the limit of the extended user area.</td>
</tr>
<tr>
<td><strong>Extended User Area Limit</strong></td>
<td>Highest address possible for the extended user area.</td>
</tr>
<tr>
<td><strong>Avail. for ELSQ/A/SWA/USER</strong></td>
<td>The amount of unallocated storage between the extended user area limit and the current top of extended user area. Note that the extended system area can allocate storage within this area.</td>
</tr>
<tr>
<td><strong>Current Top of Ext. User Area</strong></td>
<td>The highest address currently allocated within the extended private area for the extended user area.</td>
</tr>
<tr>
<td><strong>Largest free block</strong></td>
<td>The largest contiguous piece of unallocated storage within the extended user area.</td>
</tr>
<tr>
<td><strong>Extended User unallocated</strong></td>
<td>The amount of storage not allocated within the extended user area.</td>
</tr>
<tr>
<td><strong>Fragmented free space</strong></td>
<td>The amount of free storage within allocated pages of the extended user area.</td>
</tr>
<tr>
<td><strong>Bottom of Extended Private</strong></td>
<td>The lowest address currently allocated within the extended private area for the extended user area.</td>
</tr>
</tbody>
</table>
Area descriptions for storage below the 16M line:

**Highest 24-bit address**  
The highest possible address in 24-bit architecture.

**Top of Private**  
Highest address below the common area (start of CSA).

**LSQA/SWA unallocated**  
Total of contiguous 4K areas. The numbers include LSQA, SWA and subpools 229/230.

**Fragmented free space**  
Total of areas within LSQA which are each less than the 4K available for allocation as defined by FQEs.

**Current bottom of LSQA/SWA**  
Lowest address allocated to LSQA/SWA subpools.

**Avail. for LSQA/SWA only**  
Total space available for LSQA/SWA allocation. This includes the LSQA/SWA unallocated value and the amount of space in the region available area.

**User Area Limit**  
Highest address available for user allocation (region size plus IEALIMIT).

**Avail. for LSQA/SWA/USER**  
Amount of space available for problem program allocations, not including unallocated areas within the region used.

**Current top of User Area**  
Highest address currently allocated for problem program use.

**Largest free block**  
Largest contiguous area available within the region used.

**User unallocated**  
Total of the contiguous 4K areas within the region used which are available for problem program use.

**Bottom of Private**  
Lowest address within the private area (above the resident nucleus rounded up to the next 64K boundary).

**Prefixed Storage Area**  
Fixed storage location starting with absolute zero.

**Related Information:** Minor of: PEEK

Other Authorized Minors that Collect Data about Address Spaces: DATA, DDNS, JOBS, MODS, STEP, SUBP, and TCBS

**.APF**

**Type**: OMEGAMON Immediate command

**Description**: Displays whether the current OMEGAMON session is APF authorized. If your session is not APF authorized and if OMEGAMON can determine the reason, it displays an explanation. The following figure shows possible responses to the .APF command.

```
.APF >> OMEGAMON is NOT APF authorized <<
+ OM8273 >> ISPCALL was found in the TCB/RB chain <<
+ OM8273 >> ISREDIT was found in the TCB/RB chain <<
+ OM8273 >> ISPTASK was found in the TCB/RB chain <<
+ OM8273 >> ISPMAIN was found in the TCB/RB chain <<
+ OM8273 >> PDF was found in the TCB/RB chain <<
+ OM8270 >> OMEGAMON was not found in IKJEFT02 <<
```

**Related Information**: None
APFU

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Updates the Authorized Program Facility (APF) library list.

This command adds or deletes a library, or changes a volume serial name in an existing entry of the APF list.

\{-APFU\{A|C|D|L\} \{DSN=aa.bb.cc\} \{,VOL=nnnnnn\} \{,NVOL=nnnnnn\}:

- The required action character. It specifies that the command execute only once, and changes to a comment character (>) after this execution.
  - \(A\) Adds an entry to the list.
  - \(C\) Changes an existing entry in the list.
  - \(D\) Deletes an entry from the list.
  - \(L\) Lists all of the entries in the APF table.

**DSN=** Specifies the name of the dataset you want to modify.

**VOL=** Specifies the volume serial identification associated with the dataset you want to modify.

\(\text{VOL=}******\) Indicates the volser of the SYSRES pack.

\(\text{VOL=}*\text{SMS}**\) Indicates SMS-managed libraries.

**NVOL=** Specifies the new volume serial identification, when changing an entry with the \(C\) operand.

\(\text{NVOL=}******\) Indicates the volser of the SYSRES pack.

\(\text{NVOL=}*\text{SMS}**\) Indicates SMS-managed libraries.

With MVS/XA, when any modification is made to the APF list, the Link List Table is also appropriately updated with regard to the APF status of the library in the link list concatenation.

Here is an example of using the \(C\) operand:

\(-\text{APFU} \ DSN=\text{SYS2.NCP.LOADLIB},\text{VOL=}\text{SYS005},\text{NVOL=}\text{SYS006}\)

The following is a typical partial display of APFU with an \(L\) operand:

\(\text{+APFUL \ Size of the APF table is 1720 bytes, it contains 75 entries}\)

+ System Libraries
  + MVS134 SYS1.LINKLIB
  + MVS134 SYS1.SVCLIB
+ User Libraries
  + MVS134 SYS1.VTAMLST

**Related Information:** Other Program Library Facilities commands: ALIB and LPAM
ASCnnn

**Type:** OMEGAMON Minor command  
**Description:** See ASCBnn.  
**Related Information:** None

ASCBnn

**Type:** OMEGAMON Minor command  
**Description:** Dumps address space control block (ASCB) for ASID nn. The variable nn is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.  
Use the ASCnnn command to dump the ASCB for ASID nn.  
**Related Information:** Minor of: DUMP  
Other control block display minors: ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

ASEL

**Type:** OMEGAMON Minor command  
**Description:** Selects a job for DEXAN analysis and begins monitoring that job.  
DEXAN assigns a DEXAN slot number to each job selected with ASEL. The first job selected gets number 01, the second 02, and so on. To display data for the monitored job, you must use one of the display commands (for example, PLTJ). Once a DEXAN slot number is assigned, the ADEL, PLTJ, PCTJ, and MONJ commands let you enter either the DEXAN slot number or the job name as an operand, for example, PLTJ JES2 or PLTJ3. 
Enter the ASEL command followed by the job name you want to analyze. For example:  

```
DEX
BEGIN
ASEL JOB1
```

Notice below that DEXAN assigned JOB1 the DEXAN job number 01. You may now refer to JOB1 simply as 1. The ASEL command is commented out (>) so that it will not be re-executed.

```
DX >> DX0000 V750 running. Cycles=99 STIM=2.2 Elap=3.45MN <<
>BEGIN >> DX1000 The Data Collector Started. Workarea size= 38512 Bytes <<
>ASEL01 JOB1 >> DX1800 Entry added. <<
```

**Related Information:** Minor of: DEX  
Other DEXAN minors: ADELnn, ALST, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONDnnnn IPRO, J2LD, J2ST, MONJnn,mn NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn,
ASG

**Type:** OMEGAMON Immediate command

**Description:** Displays or modifies address space threshold groups.

The ASG command lets you display and modify the address space threshold group table. An address space threshold group is a group of address spaces for which you have defined similar exception analysis characteristics. Displays use the multiline input format so you can easily alter the values. The following considerations apply to the multiline input facility:

- You can modify any display line that begins with a colon in column 1.
- Blanking out fields has no effect; OMEGAMON redisplays the line on the next cycle.
- To change a setting, type over the displayed value and press Enter.
- OMEGAMON marks modified entries with one of the following:
  - ADDED
  - UPDATED
  - DELETED

OMEGAMON treats commas, blanks, and parentheses in command syntax as delimiters.

You can select address space threshold groups by specifying either the entry number of the group within the table or by specifying jobnames or performance groups in the address space threshold group. This latter capability helps locate specific entries. The ability to select specific address space threshold groups is also useful, because the display for each address space threshold group is quite long, making it impractical to list several groups at a time.

If you want to define a new address space threshold group, OMEGAMON provides you with a skeleton to fill in after you issue the ASG command. You can also request that your new address space threshold group be modeled after an existing one.

When you enter the ASG command without any additional operands, you see a summary display of the current address space threshold group table, such as the one shown in the following figure.

```
+ 1  Jobnames = *MASTER*
+ 2  Jobnames = GRS PCAUTH TRACE CONSOLE ALLOCAS
+ 3  Jobnames = DUMPSRV TSO* RMF*
+ 4  Jobnames = JES*
+ 5  Perf Grp = 0
+ 6  Perf Grp = 1
+ 7  Perf Grp = 2
+ 8  Jobnames = CICS16 CICS17 CICSQM
+ 9  Jobnames = ABCD
+ 10 Jobnames = CICS*
* There are 10 entries in the address space threshold group table.
```
**Note:** OMEGAMON limits the summary display to the first 100 entries.

If you issue the ASG command with the DIS operand, OMEGAMON displays the address space threshold group table in a format that permits modification. The DIS operand permits you to select which address space threshold groups are displayed. The complete syntax is as follows:

```
ASG DIS

[JOB(cccccccc,cccccccc,...cccccccc)]
[PGN(n1,n2,...nn|n1 : n2)]
[ENTRY(n1,n2,...nn|n1 : n2)]
[ALL]
```

**JOB**

Specifies a list of jobnames. You can abbreviate this keyword to any uniquely identifiable string.

**.PGN**

Specifies a list, range, or combination of performance groups. You can abbreviate this keyword to any uniquely identifiable string.

**ENTRY**

Specifies a list, range, or combination of address space threshold group table entries. You can abbreviate this keyword to any uniquely identifiable string.

**Note:** The threshold group numbers denote the positions of entries in the table only; they have no intrinsic meaning and are not fixed to a particular group. Namely, the entry numbers can be shifted with addition/deletion of entries in the table.

**ALL**

Specifies all threshold groups.

If you do not specify an operand, the default is DIS. If you use the DIS operand without any keywords, OMEGAMON assumes the ALL keyword. If you use the DIS operand and specify a list or range of numbers, OMEGAMON assumes the ENTRY keyword. For example:

```
ASG DIS 1,2,3
```

is the same as:

```
ASG DIS ENTRY(1,2,3)
```
The following figure shows typical output from the ASG DIS command.

<table>
<thead>
<tr>
<th>Address Space Threshold Group 4</th>
<th>Jobnames</th>
<th>Perf Grp</th>
<th>SKIPUW</th>
<th>THRSHLD</th>
<th>CLR</th>
<th>BELL</th>
<th>THRSHLD</th>
<th>CLR</th>
<th>BELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELAP = 2592000 ------ --------</td>
<td>WAIT = 10 ---- -------</td>
<td>NVSC = 500 ---- -------</td>
<td>VISC = 500 ---- -------</td>
<td>WSL0 = 4 ------ ------</td>
<td>WSHI = 1024 ---- ------</td>
<td>FXFR = 50 LVL1 ------ SWPC = 1 ---- -------</td>
<td>PSCU = 90 ---- -------</td>
<td>TPWT = 60 ---- -------</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address Space Threshold Group 3</th>
<th>Jobnames</th>
<th>Perf Grp</th>
<th>SKIPUW</th>
<th>THRSHLD</th>
<th>CLR</th>
<th>BELL</th>
<th>THRSHLD</th>
<th>CLR</th>
<th>BELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELAP = 2592000 ------ --------</td>
<td>WAIT = 10 ---- -------</td>
<td>NVSC = 900 ---- -------</td>
<td>VISC = 500 ---- -------</td>
<td>WSL0 = 256 ---- ------</td>
<td>WSHI = 1024 ---- ------</td>
<td>FXFR = 50 RED BELLON SWPC = 10 ---- -------</td>
<td>PSCU = 90 ---- -------</td>
<td>TPWT = 60 ---- -------</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address Space Threshold Group 10</th>
<th>Jobnames</th>
<th>Perf Grp</th>
<th>SKIPUW</th>
<th>THRSHLD</th>
<th>CLR</th>
<th>BELL</th>
<th>THRSHLD</th>
<th>CLR</th>
<th>BELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELAP = 2592000 ------ --------</td>
<td>WAIT = 2592000 ---- -------</td>
<td>NVSC = 500 ---- -------</td>
<td>VISC = 500 ---- -------</td>
<td>WSL0 = 4 ------ ------</td>
<td>WSHI = 1024 ---- ------</td>
<td>FXFR = 50 LVL1 ------ SWPC = 100000 ---- ------</td>
<td>PSCU = 90 ---- -------</td>
<td>TPWT = 60 ---- -------</td>
<td></td>
</tr>
</tbody>
</table>

Address Space Group

- Specifies the address space threshold group number.

**Jobnames**

- Specifies the jobnames included in this address space threshold group.

**Perf Grp**

- Specifies the performance groups included in this address space threshold group.

**SKIPUW**

- Specifies whether the WAIT exception should issue a message for this group. Valid values are YES and NO.

**THRSHLD**

- Specifies a threshold for the exception.
You can specify both jobnames and performance group numbers in the same address space threshold group. To extend jobnames and performance group numbers into a new line, end the current line by typing a plus sign (+), which acts as a continuation character.

If you issue the ASG command with the ADD operand, you can add an address space threshold group to the table. The complete syntax is as follows:

```
ASG ADD [ENTRY(n)] [,MODEL(n)]
```

**ENTRY**
Specifies a list or range of address space threshold group table entries. You can abbreviate this keyword to any uniquely identifiable string.

**MODEL**
Specifies another address space threshold groups that you want to use as a model. If you do not use a model, OMEGAMON assigns default threshold values.

If you use the ADD operand without any additional keywords, OMEGAMON adds the address space threshold group to the end of the table. If you specify the number of an existing entry, OMEGAMON inserts the new entry before the existing entry. OMEGAMON deletes the ADD operand and any keywords after you press Enter. The following figure shows typical output from the ASG ADD command.

```
>ASG 0014
+ Address Space Threshold Group 14 ** ADDED **
: Jobnames =
: Skipuw = NO
+ THRESHLD CLR BELL THRESHLD CLR BELL
: ELAP 2592000 DEFAULT -------- WAIT = 10 DEFAULT -------
: NVSC = 500 DEFAULT -------- VISC = 500 DEFAULT -------
: WSLO = 4 DEFAULT -------- WSHI = 1024 DEFAULT -------
: FXFR = 50 CLR1 -------- SWPC = 1 DEFAULT -------
: PSCU = 90 DEFAULT ------ TPWT = 60 DEFAULT -------
+ ENTRY NUMBERS MAY HAVE BEEN SHIFTED BECAUSE OF ADD/Del
```
After you add a group to the address space threshold group table, OMEGAMON reorders the group numbers consecutively, if necessary, and displays an informational message telling you that the threshold group numbers may have shifted.

If you issue the ASG command with the DEL operand, you can delete one or more address space threshold groups from the table. The complete syntax is as follows:

```
ASG DEL inwidth on 'ASG DEL' [ENTRY(n1,n2,...nnl,m1 : n2)] [ALL]
```

**ENTRY**
Specifies a list, range, or combination of address space threshold group table entries. You can abbreviate this keyword to any uniquely identifiable string.

**ALL**
Specifies all address space threshold groups in the table.

If you use the DEL operand and specify a list or range of numbers, OMEGAMON assumes the ENTRY keyword. The following figure shows typical output from the ASG DEL command.

```
>ASG DEL 13
+ Address Space Threshold Group   13 ** DELETED **
+ Jobnames =
+ Skipuw = Yes
+ ELAP = --- THRESHLD CLR BELL
+ THRSHLD = 0 DEFAULT -------  WAJT = 0 DEFAULT -------
+ NVSC = 500 DEFAULT -------  THRESHLD CLR BELL
+ WSLO = 64 DEFAULT -------  VISC = 500 DEFAULT -------
+ FXFR = 25 DEFAULT -------  THRSHLD CLR BELL
+ PCU = 90 DEFAULT -------  THRSHLD CLR BELL
+.
```

After you delete a group from the address space threshold group table, OMEGAMON displays an informational message telling you that the threshold group numbers may have shifted.

**Related Information:** Other exception analysis commands: CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XSUM, XTRP, and XTXT

---

**ASID**

**Type:** OMEGAMON Minor command

**Description:** Displays address space ID in hex (in parentheses) and decimal.

Address spaces are numbered beginning with the Master Scheduler at ASID 01. As MVS starts address spaces, they are assigned an ASID number, which MVS uses as an internal reference.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Identification minors: DMNA, DMPxx, DOM#, PERD, PERF, PGNA, PROC, and STEP
ASMV

**Type:** OMEGAMON Minor command

**Description:** Dumps Auxiliary Storage Manager Vector Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Minors: ASCBnn, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAmm, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAm, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPhn, WAMT, and WMST

ASTG

**Type:** OMEGAMON Minor command

**Description:** Displays address space threshold group. For different jobs, the appropriate threshold for each exception may be extremely different. To give you the necessary flexibility, OMEGAMON lets you define a set of address space threshold groups using the ASG immediate command.

Each address space threshold group contains a set of jobnames and/or performance group numbers.

Sometimes OMEGAMON cannot discover why a job is waiting. It may be that it is supposed to wait until some other event occurs. The WAIT exception produces a warning message for these jobs, unless they are assigned to an address space threshold group with SKIPUW set equal to Yes.

If there is no address space threshold group defined for this job, **None** appears.

To display a description of the first group that appears (reading from left to right), place a D in the label field. The description shows:

- the group ID (User ID)
- whether SKIPUW is in effect or not (If SKIPUW is on, disabled waits are to be reported for the WAIT exception)
- a list of all address space exceptions in effect for this group
- each exception’s threshold, color intensity, and bell status (ON or OFF)
For example:

```
JOBN   PCAUTH
DASTG
+    Address Space Threshold Group 2
+    SKIPUW = No
+    ELAP = 2592000 ------ ------- WAIT = 2592000 ---- -------
+    NVSC = 500 ------ ------- VISC = 500 LVL2 BELLON-
+    WSLO = 4 ------ ------- WSHI = 1024 -------
+    FXFR = 50 LVL1 BELLON- SWPC = 2 ---- -------
+    PSCU = 90 ------ -------
```

**Type:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

**ASVT**

**Type:** OMEGAMON Minor command

**Description:** Dumps Address Space Vector Table. (There are other entries with the same name. See the next entry for a description of ASVT as a minor of SYS.) By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Minors: ASCBnn, ASMV, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn., PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

**ASVT**

**Type:** OMEGAMON Minor command

**Description:** Displays status of Address Space Vector Table slots. (There are other entries with the same name. See the previous entry for a description of ASVT as a minor of DUMP.) Status includes the following information:

- total number of slots
- number of in-use slots
- number of available slots
- number of unusable slots

If you add an argument of U to the ASVT command (ASVTU), the ASIDs of the unusable ASVT slots appear (eight per line).

The MAXU exception indicates when the number of active address spaces exceeds a threshold.

**Related Information:** Minor of: SYS
ASXnnn

**Type:** OMEGAMON Minor command

**Description:** See ASXBnn.

**Related Information:** None

ASXBnn

**Type:** OMEGAMON Minor command

**Description:** Dumps address space extension block (ASXB) for ASID nn, where nn is a decimal number.

By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Use the ASXnnn command to dump the address space extension block for ASID nnn.

This command only works for the user’s own ASID and for ASID 01 unless OMEGAMON runs APF authorized. This is because the ASXB resides in private storage, and OMEGAMON has to schedule an SRB to get to it.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAnn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

/ATTACH or /A

**Type:** OMEGAMON INFO-line command

**Description:** Attaches the specified cross system session (alias is /A).

/ATTACH cccc

The variable cccc is the 4-character system ID of the cross system collector. For example, the following command attaches cross system collector A083:

/ATTACH A083

**Related Information:** None

/ATTN

**Type:** OMEGAMON INFO-line command

**Description:** Emulates the PA1 (program attention) key.

/ATTN clears the screen, resets your internal security authorization to the lowest level, returns to default color settings, and turns off extended color.

**Related Information:** None
/AUP

**Type:** OMEGAMON INFO-line command  
**Description:** Controls automatic update mode.

<table>
<thead>
<tr>
<th>Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some network programs do not support automatic update mode (for example, a program that emulates a terminal for your OMEGAMON VTAM mode session).</td>
</tr>
</tbody>
</table>

/\AUP {ON|OFF}

ON  Enables automatic update mode.  
OFF Disables automatic update mode.

This command is valid only in VTAM mode. Automatic update mode is similar to running OMEGAMON in dedicated mode, since the screen updates at regular intervals without pressing Enter. You can check the current default interval or change it with the .SET command.

The /AUP command controls automatic updates for the current session only and is not saved at the end of the current session.

While OMEGAMON is automatically updating in VTAM mode, you can continue to enter commands. OMEGAMON delays processing in order to avoid executing half-entered input. The length of the delay is determined by the IODELAY keyword of the .SET command.

The /AUP command controls automatic updates for the current session only and is not saved at the end of the current session.

.AUP is the equivalent immediate command. The .AUP command controls automatic updates for the current session only and is not saved at the end of the current session.

**Related Information:** None

.AUP

**Type:** OMEGAMON Immediate command  
**Description:** Controls automatic update mode.

See /AUP, the equivalent INFO-line command, for the command description.

The .AUP command controls automatic updates for the current session only and is not saved at the end of the current session.

If .AUP is entered without an argument, OMEGAMON displays whether automatic update mode is ON or OFF.

**Related Information:** None
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Commands and Keywords

BATJ

**Type:** OMEGAMON Major command  
**Description:** Selects all initiators, active or not. BATJ shows idle initiators as INIT.  
Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.  
See also .SPT.

BATL

**Type:** OMEGAMON Major command  
**Description:** Selects batch jobs in logically swapped status.  
Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.  
See also .SPT.

BATX

**Type:** OMEGAMON Major command  
**Description:** Selects active batch jobs.  
Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.  
See also .SPT.

BCPU

**Type:** OMEGAMON Major command  
**Description:** Selects CPU dispatchable batch jobs.  
Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.  
See also .SPT.

BEGN

**Type:** OMEGAMON Minor command  
**Description:** Starts DEXAN data collector.  
To start the DEXAN data collector, use the BEGN command.  
For example:

```
DEX  
BEGN
```
results in:

```
DEX  >> DX0001 Collector has not been started. <<
>BEGN   >> DX1000 The data collector started. Workarea size= 38696 bytes. <<
```

Note that the command is automatically changed to a comment (greater than (> ) sign in column 1) so that the command is not executed again.

The BEGN command also places an asterisk (*) on the INFO-line between the product and version numbers. This asterisk remains until you issue the END minor command.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAann, CNTFnnn, CNTJnnn, CNTS, END, FLST, FOFnnnnn, FONDnnnnn, IPRO, J2LD, J2ST, MONJnnn, NUMAannn, NUMFnnnn, NUMPnnnnn, PCTRnnnnn, PCTAnnn, PCTFnnnnn, PCTJnnnnn, PCTS, PLST, PLTnnnnn, PLTAnnn, PLTFnnn, PLTJnnnnn, PLTS, POFnnnnnnn, PONnnnnnnn, RESM, RSFnnnnnn, RSFpnnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnnn, and XPGnnnnnn

---

**BIO**

**Type:** OMEGAMON Major command

**Description:** Selects non-CPU dispatchable batch doing I/O. These are batch jobs that have done I/O in the last five seconds and are not CPU-dispatchable now.

Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

---

**BLST**

**Type:** OMEGAMON Minor command

**Description:** List collection buckets for display.

You can list the collection buckets that are currently included in the DEXAN displays with the BLST command. The names correspond to the code names that describe wait reasons. For example:

```
DEX  >> DX0001 Collector has not been started <<
BLST COM=on CPW=on DMP=on ECB=on ECS=on PSO=on CAN=on JST=on
+ DEL=on RQU=on RCL=on RCV=on MIG=on BKP=on RCR=on HLS=on
+ CIL=on DLD=on LCK=on MSS=on PAG=on RDY=on RTO=on STI=on
+ SWI=on TMP=on WTO=on TOU=on TIN=off LON=on AUX=on RST=on
+ DET=on REQ=on EEX=on EXC=on UNI=on TSW=on CSS=on SPS=on
+ OLS=on APS=on
```

**Note:** The default is for all wait reasons to be displayed except for terminal input waits (TIN).
You can list the names and descriptions of all collection buckets by placing the slash (/) help symbol in the label field (column 1) before the BLST command. DEXAN displays the names and descriptions of each bucket as comment lines. For example:

```
DEX    >> DX0001 Collector has not been started <<
/BLST
```

results in the following display.

```
DEX    >> DX0001 Collector has not been started <<
>blst   >> DEXAN -- List bucket items selected for display. <<
>       COM -- LPA or CSA page in wait.
>       CPW -- CPU-wait.
>       DMP -- Disk mount pending.
>       ECB -- ECB-wait.
>       ECS -- ECB-wait with STIMER.
>       PSO -- JES PROCESS SYSOUT request queued.
>       CAN -- JES job CANCEL request queued.
>       JST -- JES job STATUS request queued.
>       DEL -- JES job DELETE request queued.
>       RQU -- JES job REQUEUE request queued.
>       RCL -- HSM RECALL dataset request.
>       RCV -- HSM RECOVER dataset request.
>       MIG -- HSM MIGRATE dataset request.
>       BKP -- HSM BACKUP dataset request.
>       RCR -- HSM read control record request.
>       HLS -- HSM TSO HLIST request.
>       CIL -- HSM read JES3 C/I request.
>       DLD -- HSM DELETE dataset request.
>       LCK -- Local or global lock wait.
>       MSS -- Waiting for staging.
>       PAG -- Local page-wait.
>       R Dy -- User ready to swap in.
>       RTO -- RTO wait.
>       STI -- STIMER-wait.
>       SWI -- Swap in scheduled.
>       TMP -- Tape mount pending.
>       WTO -- Detected wait with WTOR.
>       Tou -- Terminal output wait swap. 1 (MVS swap code)
>       TIN -- Terminal input wait swap. 2
>       LON -- Long wait swap. 3
>       AUX -- Auxiliary storage swap. 4
>       RST -- Real storage swap. 5
>       DBT -- Detected wait swap. 6
>       REQ -- Request swap. 7
>       EEX -- Enqueue exchange swap. 8
>       EXC -- Exchange swap. 9
>       UNI -- Unilateral swap. 10
>       TSW -- Transition swap. 11
>       CSS -- Central storage swap (SP 4.2). 12
>       SPS -- System paging swap (SP 4.2). 13
>       OLS -- Swapped out too long (SP 4.2). 14
>       APS -- APPC wait swap (SP 4.2). 15
```

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn,
BOFaaa

**Type:** OMEGAMON Minor command

**Description:** Removes DEXAN collection bucket aaa from the display, where aaa is the bucket id. BOFaaa removes the aaa collection bucket from the display. The bucket is still collected, but the results are not included in the display. For example:

```
DEX
BOFDMP
```

results in:

```
DEX >> DX0001 Collector has not been started <<
BOFDMP >> DX3002 The collection counter for DMP is now off <<
BLST  COM=on CPW=on DMP=off ECB=on ECS=on PSO=on CAN=on JST=on
+ DEL=on RQU=on RCL=on RCV=on MIG=on BKF=on RCR=on HLS=on
+ CIL=on DLL=on LCK=on MSS=on PAG=on RYD=on RTO=on STI=on
+ SWI=on TMP=on WTO=on TOU=on TIN=off LON=on AUX=on RST=on
+ DET=on REQ=on EEX=on EXC=on UNI=on TSW=on
```

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAan, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAan, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

BONaaa

**Type:** OMEGAMON Minor command

**Description:** Selects DEXAN collection bucket aaa for display. BONaaa adds the aaa collection bucket to the display. For example:

```
DEX >> Collector has not been started <<
BONDMP >> Done << Disk Mount Pending
```

results in:

```
DEX >> DX0001 Collector has not been started <<
BONDMP >> DX3001 The collection counter for DMP is now on <<
BLST  COM=on CPW=on DMP=on ECB=on ECS=on PSO=on CAN=on JST=on
+ DEL=on RQU=on RCL=on RCV=on MIG=on BKF=on RCR=on HLS=on
+ CIL=on DLL=on LCK=on MSS=on PAG=on RYD=on RTO=on STI=on
+ SWI=on TMP=on WTO=on TOU=on TIN=off LON=on AUX=on RST=on
+ DET=on REQ=on EEX=on EXC=on UNI=on TSW=on
```

The DMP collection bucket now returns to the display.

**Related Information:** Minor of: DEX
Commands and Keywords

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, CENQ, CLRnnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPPnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

/BOTTOM

**Type:** OMEGAMON INFO-line command  
**Description:** Scrolls to the bottom of the logical screen.  
**Related Information:** None

**BSWP**

**Type:** OMEGAMON Major command  
**Description:** Selects batch jobs physically swapped out. These are batch jobs that are waiting and are physically swapped out.  
**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.  
See also .SPT.

**BWAT**

**Type:** OMEGAMON Major command  
**Description:** Selects batch waiting (resident). These are batch jobs that are currently waiting and are in main storage. These jobs often become non-swappable because they are waiting on tape mounts.  
**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.  
See also .SPT.
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  CNTnnnn .................................................. 113
  CNTPnnnn ................................................ 114
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CSAR ................................................................. 124
CSD ................................................................. 125
CTAPxx .............................................................. 125
CUR xx .............................................................. 125
CVT ................................................................. 126
CWSS ............................................................... 126
Commands and Keywords

CCHRxx

Type: OMEGAMON Minor command

Description: Displays statistics about optical character readers connected by channel path xx (XA, ESA).

Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

CCOMxx

Type: OMEGAMON Minor command

Description: Displays statistics about communications devices connected by channel path xx (XA, ESA).

Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

CCT

Type: OMEGAMON Minor command

Description: Dumps SRM CPU Management Control Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

CCTCxx

Type: OMEGAMON Minor command

Description: Displays statistics about channel-to-channel adapters connected by channel path xx (XA, ESA).
Commands and Keywords

Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxx, LCU xxx xxx, LDSKxx, LGRAxx, LTAPxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP ccccccc, RSPnnn, SCHRxx, SCOMxx, SCTCxx, SDSLxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

CDSKxx

Type: OMEGAMON Minor command

Description: Displays statistics about disks connected by channel path xx Sample CDSK output for channel path 10 appears below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>csk10 Number of Devices = 192</td>
<td>Number of Samples = 760</td>
<td></td>
</tr>
<tr>
<td>+ Volser LCU Util% RESV%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ CD80 PAGE01 023</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ CD81 VMHP04 023</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxx, LCU xxx xxx, LDSKxx, LGRAxx, LTAPxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP ccccccc, RSPnnn, SCHRxx, SCOMxx, SCTCxx, SDSLxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

CENQ

Type: OMEGAMON Minor command

Description: Controls enqueue analysis. CENQ without an operand displays current enqueue wait collection setting. CENQOF turns off enqueue wait collection. CENQON turns on enqueue wait collection. CENQ:hp1.nn:ehp1 turns on enqueue wait collection and causes enqueue sampling to take place every nn cycles (valid range is 1 - 10).

Note: By default, the enqueue analysis is turned off to conserve CPU resources, which may amount to as much as 5%. When it is turned off, enqueue waits are attributed to ECB waits. Thus, the ECB percentages increase.

Related Information: Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CLRnnn, CNTnnnn, CNTAnn, CNTRnn, CNTJnn, CNTS, END, FLST, FOFrnnn, FOFrnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTs, POFrnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

CGRAxx

Type: OMEGAMON Minor command
**Description:** Displays statistics about graphics devices connected by channel path xx (XA, ESA).

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccc, PNDnnn, PTAP ccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

**CHAPnn**

**Type:** OMEGAMON Minor command

**Description:** Sets dispatch priority for the address space specified on the address space major command.

\{-)CHAP\{nn\}

- The required action character, which causes the command to execute only once and then changes to a comment character (>).

- \nn\ The dispatch priority for the address space. Valid values are 00 through FF.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

**CHNM**

**Type:** OMEGAMON Immediate command

**Description:** Displays or sets the channel path mask for missing channel path analysis. CHNM displays, sets, or updates the current channel mask, indicating which physical channel paths are operational.

**Note:** If you configure a channel path online while OMEGAMON is running, OMEGAMON adds that channel path to the channel path mask.

**CHNM [ALL | ONLINE | ADD(nn) | DELETE(nn)]**

- **ALL** Set the channel path mask with all channel paths installed and owned.
- **ONLINE** Set the channel path mask with all channel paths currently online.
- **ADD** Add channel path ID \nn\ to the existing channel path mask.
- **DELETE** Delete channel path ID \nn\ from the existing channel path mask.

- **nn** Channel path ID to add to or delete from the mask. You can specify more than one channel path ID if you separate them with blanks or commas.

If you issue the CHNM command without operands, it displays the current channel path mask.
Examples:
The following figure shows typical output from the CHNM command with no operands.

\[
\text{CHNM} \\
+ \quad 00 \ 01 \ 02 \ 03 \ 04 \ 05 \ 06 \ 07 \ 08 \ 09 \ 0A \ 0B \ 0C \ 0D \ 0E \ 0F \\
+ \quad 10 \ 11 \ 12 \ 13 \ 14 \ 15 \ 16 \ 17 \ 18 \ 19 \ 1A \ 1B \ 1C \ 1D \ 1E \ 1F \\
\]

The following figure shows typical output from the CHNM ALL command.

\[
 allows ALL \\
+ \quad \text{The Channel Path Mask is set to all INSTALLED Channel Paths.} \\
\]

The following figure shows typical output from the CHMN ONLINE command.

\[
 allows ONLINE \\
+ \quad \text{The Channel Path Mask is set to all ONLINE Channel Paths.} \\
\]

The following figure shows typical output from the CHNM ADD command.

\[
 allows ADD \{18\} \\
+ \quad \text{The following Channel Paths were ADDED to the Channel Path Mask.} \\
+ \quad \text{18} \\
\]

The following figure shows typical output from the CHNM DELETE command.

\[
 allows DELETE \{02,03\} \\
+ \quad \text{The following Channel Paths were REMOVED from the Channel Path Mask.} \\
+ \quad 02 \ 03 \\
\]

Related Information: Other exception analysis commands: ASG, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XSUM, XTRP, and XTXT

CHNP

Type: OMEGAMON Minor command

Description: Displays statistics about long-term channel information. CHNP is a minor command of STAT, which shows channel utilization since the last RMF interval. When OMEGAMON first starts up, these numbers represent averages since OMEGAMON initialization. The first time an RMF interval starts up, OMEGAMON automatically synchronizes with it.
The following figure shows an example of a long-term channel utilization display.

<table>
<thead>
<tr>
<th>STAT</th>
<th>CHNP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Number of Samples**: This is determined by SRM, not by the RMF.

**ID**: Channel Path ID number.

**Type**: Channel type:

- **Blk**: Block Multiplexor
- **Byte**: Byte Multiplexor
- **ES-CHN**: ESCON™ channel
- **ES-CNV**: ESCON converter
- **ES-DIR**: ESCON director
- **ES-CTC**: ESCON channel-to-channel adapter

**% Busy**: Channel Path utilization in percent

RMF must be monitoring channels to show long-term utilization.

**Related Information**: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CONnnn, CTAPxx, CURxx, DSCnnn, DUTnnn, EDSKcccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRA.xxx, LTAPxxx, LUR xxx, PSDKcccccc, PNDnnn, PTAP ccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

**CLRnnn**

**Type**: OMEGAMON Minor command

**Description**: Resets the DEXAN data collector counters every nnn minutes.

To clear the DEXAN counters while the data collector is running, use the CLRnnn command (with SYNCOF), where nnn is the interval in minutes past the hour at which DEXAN is to clear its counters. For example, if you use a numeric argument of 15, the counters are cleared immediately, and then every 15 minutes starting 15 minutes after the hour. (If nnn is greater than 60, the counters are cleared immediately, and then every nnn minutes after that.)
If CLRnnn is entered without an nnn operand, the counters are cleared immediately and the 30 minute default interval is displayed. For example:

```plaintext
DEX >> DX0000 V75 running. Cycles=214 STIM=1.0 Elap= 1:30 MN <<
>CLR >> DX7000 Collection counter clearing interval is every 30 minutes <<
```

does the following:

- Clears all DEXAN counters.
- Sets the number of cycles to zero.
- Sets the DEXAN elapsed time to zero.

This is logically equivalent to stopping and then restarting DEXAN. Note that the command is changed into a comment so that it is not re-executed on the next cycle. The CLR command can only be used after the data collector has been started.

**Note:** After an episode of severe degradation, such as a ten minute tape mount pending, you may wish to clear the DEXAN counters to prevent this from overshadowing or masking other significant sources of degradation.

**Related Information:**
Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

---

**CMBxxx**

**Type:** OMEGAMON Minor command

**Description:** Dumps Channel Measurement Block for device xxx, or for device xxxx when OMEGAMON II for MVS is running under MVS/SP™ 5.1 and above.

By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

```plaintext
DUMP Display MVS Control Blocks
cmbC520 Addr=053FC220
0000 00000000 00000000 00000000 00000000 ................*
0010 00000000 00000000 00000000 00000000 ................*
```

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GV T, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSA n, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST
CMCT

**Type:** OMEGAMON Minor command

**Description:** Dumps Channel Measurement Control Table (XA).

By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

.CN

**Type:** OMEGAMON Immediate command

**Description:** Controls the specified secondary console in dedicated mode.

**.CNxxx**

The variable xxx is the hexadecimal address of the secondary console.

In dedicated mode, you can set up a secondary OMEGAMON console to be used for output only. The secondary console is a repeater console; it echoes everything that appears on the primary console, but accepts no commands or input of any kind. The secondary console must be the same terminal type as the primary console.

After you set the address of the secondary console with .CNxxx, you can manipulate it with the following arguments:

- **.CN OP** Allocate (open) a secondary console for OMEGAMON output display.
- **.CN CL** Deallocate (close) a secondary console.
- **.CN SW** Swap primary and secondary console functions.

**Note:** While the .CN command handles multiple terminals connected to a single session, the immediate command, .MFY, sets up multiple independent sessions.

**Related Information:** None

CNTAnn

**Type:** OMEGAMON Minor command

**Description:** Displays counts of wait reasons for DEXAN slot number nn.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn,
Commands and Keywords

PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

CNTFnn

**Type:** OMEGAMON Minor command

**Description:** Displays counts of execution states for first period of performance group with DEXAN slot number nn.

Use the CNTF command followed by the DEXAN slot number to display actual counts of wait reasons for a monitored first period. The DEXAN slot number is the number DEXAN assigns to a performance group when it is selected for first period monitoring. For example:

**CNTF1**

results in:

<table>
<thead>
<tr>
<th>CNTF1</th>
<th>CPU</th>
<th>PAG</th>
<th>45E</th>
<th>ECB</th>
<th>CPW</th>
<th>4A0</th>
<th>A9A</th>
<th>4A4</th>
<th>QA9A0</th>
<th>157</th>
<th>Q4A00</th>
<th>140</th>
</tr>
</thead>
<tbody>
<tr>
<td>USERPSP</td>
<td>---</td>
<td>307</td>
<td>236</td>
<td>206</td>
<td>98</td>
<td>86</td>
<td>71</td>
<td>50</td>
<td>35</td>
<td>23</td>
<td>21</td>
<td>10</td>
</tr>
</tbody>
</table>

The counts show you the actual results of DEXAN sampling or data collection. Each column heading is an execution state where first period transactions are spending time. These numbers are the actual number of times DEXAN found the performance group in a particular execution state. These numbers are the raw data from which the resource impact profile, plot, and percentage are drawn. These three displays are what you will rely on most of the time because they are easier to interpret than a count.

No counts appear for CPU because using CPU is determined by an alternate method.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

CNTJnn

**Type:** OMEGAMON Minor command

**Description:** Displays counts of wait reasons for DEXAN slot number nn or jobname. For example:

**CNTJ USERPSP**

results in:

<table>
<thead>
<tr>
<th>CNTJ01</th>
<th>CPU</th>
<th>PAG</th>
<th>UNI</th>
<th>CPW</th>
<th>4A3</th>
<th>4A0</th>
<th>A9A</th>
<th>4A4</th>
<th>QA9A0</th>
<th>157</th>
<th>Q4A0A</th>
<th>140</th>
</tr>
</thead>
<tbody>
<tr>
<td>USERPSP</td>
<td>---</td>
<td>307</td>
<td>236</td>
<td>206</td>
<td>98</td>
<td>86</td>
<td>71</td>
<td>50</td>
<td>35</td>
<td>23</td>
<td>21</td>
<td>10</td>
</tr>
</tbody>
</table>
The counts show you the actual results of DEXAN sampling or data collection. Each column heading is an execution state where a job is spending time. The numbers are the actual number of times DEXAN found a job in a particular execution state.

No counts appear for CPU because using CPU is determined by an alternate method. These counts are the raw data from which the resource impact profile, plot, and percentage are drawn. These three displays are what you will rely on most of the time because they are easier to interpret than a count. However, it is good to become familiar with counts because they can help you become familiar with your system and with DEXAN. Also, if you know where the displays come from, they will be even easier to use.

The CNTJ command cannot be used with the IPRO command.

Related Information: Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

CNTnnnn

Type: OMEGAMON Minor command

Description: Displays counts of execution states for performance group nn. The CNT command followed by the performance group number (nnnn) displays counts of wait reasons for a performance group. For example:

CNT1

results in:

<table>
<thead>
<tr>
<th>CNT1</th>
<th>CPU</th>
<th>TMP</th>
<th>CPW</th>
<th>157</th>
<th>Q1570</th>
<th>DET</th>
<th>156</th>
<th>UNI</th>
<th>734</th>
<th>Q7340</th>
<th>Q4A00</th>
<th>140</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ REG</td>
<td>BAT</td>
<td>---</td>
<td>11K</td>
<td>6482</td>
<td>3332</td>
<td>2126</td>
<td>1636</td>
<td>601</td>
<td>598</td>
<td>579</td>
<td>523</td>
<td>421</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The counts show you the actual results of DEXAN sampling or data collection. Each column heading is an execution state where performance group transactions are spending time. The numbers are the actual number of times that DEXAN found the performance group in a particular execution state.

The counts are the raw data from which the resource impact profile, plot, and percentage are drawn. These three displays are what you will rely on most of the time because they are easier to interpret.

No counts appear for CPU because using CPU is determined by an alternate method.

Note: You may also enter the CNTnnnn command as CNTPnnn. These commands are the same.

Related Information: Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaa, BONaaa, CENQ, CLRnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn,
Commands and Keywords

PCTJnnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

CNTPnnnnn
Type: OMEGAMON Minor command
Description: See CNTnnnnn.
Related Information: None

CNTS
Type: OMEGAMON Minor command
Description: Displays counts of DEXAN wait reasons systemwide. For example:

<table>
<thead>
<tr>
<th>CNTS</th>
<th>CPU</th>
<th>ECS</th>
<th>BCB</th>
<th>STI</th>
<th>DET</th>
<th>CFW</th>
<th>LON</th>
<th>TMP</th>
<th>TOU</th>
<th>SWI</th>
<th>333</th>
<th>155</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>---</td>
<td>5913</td>
<td>2967</td>
<td>1760</td>
<td>1451</td>
<td>802</td>
<td>250</td>
<td>175</td>
<td>161</td>
<td>46</td>
<td>30</td>
<td>29</td>
</tr>
</tbody>
</table>

The counts show you the actual results of DEXAN sampling or data collection. Each column heading is an execution state where system transactions are spending time. These numbers are the number of times DEXAN found a workload in a particular execution state.

No counts appear for CPU because using CPU is determined by an alternate method.

These counts are the raw data from which the resource impact profile, plot, and percentage are drawn. These three displays are what you will rely on most of the time because they are easier to interpret.

Related Information: Minor of: DEX

Other DEXAN minors: ADELnnn, ALST, ASEl, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnnn, CNTnnnnn, CNTAnn, CNTFnn, CNTJnn, END, FLST, FOFnnnn, FONnnnnn, IPRO, J2LD, J2ST, MONJnnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnnn

CONnnnn
Type: OMEGAMON Minor command
Description: Displays and sets thresholds for average device connect time > nnn milliseconds. Sample CON output appears below.

con001
edsk OMON* <-- Volser Pattern
+ Number of Devices = 192 Number of Samples = 760
+ Volser DB CUB
+ 714B OMON27 .3 .0 .0
+ 7151 OMON28 .1 .0 .0

Related Information: Minor of: STAT
Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK cccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

CONS

Type: OMEGAMON Major command (Authorized)

Description: Displays the console image for the specified console.

\[ \text{CONSnn} \] \{ \text{CONS=} \{ \text{conid} | \text{conname} \} \}

- **nn** This MVS console number ranges from 01 to the maximum number of consoles generated for your installation. If nn is omitted, OMEGAMON selects the master console.
- **conid** Selects the MVS operator’s console by ID number. This operand overrides the nn operand.
- **conname** Selects the MVS operator’s console by name. This operand overrides the nn operand.

CONS displays three types of information on the command line: the type of console (CONSOLE or MASTER CONSOLE), the console’s device number, and the console’s ID number (as in ID=3).

To see each MVS console’s number (also known as the UCMID), issue the D CONSOLES command at a real MVS console.

The CONS minor commands enable you to display selected types of messages from the console.

The CONS command also displays the output that MVS or JES commands generate when the OCMD authorized command issues them.

Note that OMEGAMON accesses the CONSOLE address space using cross memory services each time you ask for a display. It uses a small amount of memory in the MVS common area (approximately 2K) for the period that the CONS command is on the screen.
The following figure is an example of an OMEGAMON screen that uses the MVS console support.

```
*OCMD R 83,ABEND  RC = 0  
------------------------------------------------------------------
CONS01  MASTER CONSOLE 01F  
line99  *STC  721 *82 DFS996I *IMS READY* IPO1  
     +  - STC 1113 $HASP395 IMSRDR ENDED  
     +  - STC 1113 $HASP250 IMSRDR IS PURGED  
     +  - JOB 1114 $HASP373 BMP01 STARTED - INIT 4 - CLASS I - SYS A430  
     +  - JOB 1111 $HASP395 TSO003G ENDED  
     +  $HASP309 INIT 3 INACTIVE ******** C=I  
     +  - JOB 1111 $HASP250 TSO003G IS PURGED  
     +  - STC 721 DFS2500I *MDA00 IPO1  
     +  - DATABASE BK3PARTS SUCCESSFULLY ALLOCATED  
     +  - STC 721 DFS2500I *MDA00 IPO1  
     +  - DATABASE BK3PSID1 SUCCESSFULLY ALLOCATED  
     +  | JOB 1114 83 DFS3125A PRIMER SAMPLE TEST, REPLY CONT, LOOP, ABEND, O  
     +  | CANCEL JOB  
     +  - TSU 1115 $HASP100 TSO045 ON TSOMEMAGON/IMSNRDR  
     +  - TSU 1115 $HASP373 TSO045 STARTED  
     +  00 IEE600I REPLY TO 83 IS;ABEND  
------------------------------------------------------------------
```

**Related Information:** Major of: ACTN, LINE, and MNT

Other console-related commands: CONU, OCMD, and RCMD

**CONU**

**Type:** OMEGAMON Major command (Authorized)

**Description:** Locates the output buffer for an MVS operator console by device number.

**CONU xxxx**

CONU functions like CONS, except that you supply the four-byte hex device number as an operand instead of the console ID. If you omit xxx, OMEGAMON automatically locates the output buffer for the master console. CONU displays the number and the console ID as shown:

```
CONU  06A0  Master Console 06A0 ( ID=3 )
```

**Related Information:** Major of: ACTN, LINE, and MNT

Other Console-Related commands: CONS, OCMD, and RCMD

**COPY**

**Type:** OMEGAMON Minor command

**Description:** Specifies the number of copies to print. The COPY minor is under SYSCOUT control.

```
COPY nn
```
If you set the HOLD minor command to YES, OMEGAMON ignores the COPY command. If the value you type is not valid, OMEGAMON redisplays it where you typed it and does not transfer it to the pending column.

**Related Information:** Minor of: OUTP

Other print output options minors: DDNM, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID3, ID4, LNCT, and SOUT

**CPGR**

**Type:** OMEGAMON Minor command

**Description:** Displays common area page-in rate.

This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDGP, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK Related EPILOG Keywords: RDOM and RSRM

**CPGS**

**Type:** OMEGAMON Minor command

**Description:** Displays CPU page-seconds.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPU, CPU2, CPUL, DISP, DPRT, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

**CPID**

**Type:** OMEGAMON Minor command

**Description:** Displays CPU ID (XA).

**Related Information:** Minor of: SYS

**CPMT**

**Type:** OMEGAMON Minor command

**Description:** Dumps Channel Path Measurement Table (XA). By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST
CPU

**Type:** OMEGAMON Minor command

**Description:** Displays TCB time for current job step (batch) or user session (TSO). The value shown is in whole seconds.

**Related Information:** Minor of: See *Address Space Information Commands* in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU2, CPUL, DISP, DPRT, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

CPU2

**Type:** OMEGAMON Minor command

**Description:** Displays TCB time in seconds. The value shown is in seconds plus fractions of seconds. An argument of .R gives the percentage of the total time (of an interval) attributable to TCB utilization.

The system resets TCB time to zero when a job step completes, so .R may display an incorrect value if the TCB time is reset between OMEGAMON cycles.

**Related Information:** Minor of: See *Address Space Information Commands* in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPUL, DISP, DPRT, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

CPUL

**Type:** OMEGAMON Minor command

**Description:** Displays job step CPU time limit.

When TIME=1440 or TIME=NOLIMIT is specified to turn off job step timing, 'No Limit' is displayed.

**Related Information:** Minor of: See *Address Space Information Commands* in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, DISP, DPRT, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

CPUM

**Type:** OMEGAMON Immediate command

**Description:** Displays or sets the CPU mask for missing CPU exception analysis. When the XCPU exception is invoked, it examines the number of active CPUs, and builds a mask of processors that should be active. You can display or reset this mask with the CPUM command.
CPUM [ADD(n)|DELETE(n)|ONLINE]

**ADD** 
Specifies a CPU ID to add to the existing CPU mask.

**DELETE** 
Specifies a CPU ID to delete from the existing CPU mask.

**ONLINE** 
Sets the CPU mask to all online CPUs.

You can specify more than one CPU ID on the ADD or DELETE keywords if you separate each with blanks or commas. For example:

```
CPUM ADD(0,2,3)
```

When you change the CPU mask, OMEGAMON returns a message summarizing the changes you made.

You cannot turn off the mask bit for a CPU that is currently online, because XCPU automatically resets it at each cycle. The following figure shows typical output from the CPUM command with no operands.

```
CPUM  2
```

The following figure shows typical output from the CPUM ADD command.

```
>CPUM ADD(1)
+    The following CPUs were ADDED to the CPU Mask.
+      2
```

The following figure shows typical output from the CPUM DELETE command.

```
>CPUM DELETE(0)
+    The following CPUs were REMOVED from the CPU Mask.
+      1
```

The following figure shows typical output from the CPUM ONLINE command.

```
>CPUM ONLINE
+    The CPU Mask is set to all ONLINE CPUs.
```

**Related Information:** Other exception analysis commands: ASG, CHNM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XSUM, XTRP, and XTXT

**CRPG**

**Type:** OMEGAMON Minor command

**Description:** Displays transaction class report performance group number. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
CSA

**Type:** OMEGAMON Minor command

**Description:** Displays a job’s usage of CSA. (There are other entries with the same name. See the next entry for a description of CSA as a minor of SYS.)

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI

---

**Type:** OMEGAMON Minor command

**Description:** Displays common storage area (CSA) by subpool and protect key. (There are other entries with the same name. See the previous entry for a description of CSA as a minor of address space majors.)

CSA displays the number of bytes used as well as allocated for those subpools that are not in fetch-protected memory.

Protected subpools display *AUTH* in the Storage Used column. OMEGAMON cannot access these protected subpools.

The display of CSA utilization shows the extents, allocated blocks, storage used, and the largest free block.

```
SYS   >> IPS=83,OPT=83,ICS=83, SYSRES=(MVS123,145) <<
CSA  Subpl-Key  Ext     Alloc. Blks         Storage Used    Largest Free Blk
+       227-6      4             16K             *AUTH*              *AUTH*
+       231-6     13            272K           267K+384              3K+832
+       241-6      9             48K            47K+784              240
+       228-1      1             4K                56              3K+968
+       231-1      2            20K            16K+680               3K
+       241-1      8            32K            30K+96               1K+16
+       241-0      3             12K            11K+96                326
+       227-0      3            20K             *AUTH*              *AUTH*
+       231-0     16             76K           65K+1016              5K+56
+     Total:      59            500K           439K+40             17K+390
+     Percent of CSA:       16.6%        14.6%            0.6%
+     CSA Size            3012K
```
When an SQA overflow condition occurs, the following line appears at the bottom of CSA output:

(CSA SIZE DOES NOT INCLUDE nnnk OF CSA CONVERTED TO SQA)

To display CSA for real storage, use the CSAR minor command of SYS.

**Related Information:** Minor of: SYS

Other system storage minor commands: CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

---

**CSAA**

**Type:** OMEGAMON Immediate command

**Description:** Displays common storage area information.

`CSAA [function keyword] [filter keyword]`
The CSAA command entered without operands defaults to the function keyword, SUMMARY. The CSAA command entered with only a function keyword produces a display based on the defaults for the associated filter keywords. The full command syntax is included in the display.

The CSAA command retains values for its keywords; therefore, you do not need to re-enter their values each time you execute the command. Also, it displays the current values with the keywords so that they can be changed easily.

**Function Keywords**

The following function keywords are available for CSAA.

- **SUMMARY**  
  Shows overall common storage utilization. This is the default. You can use this keyword to determine if there is a common storage shortage problem in any of the four common storage areas. SUMMARY does not accept filter keywords.

- **TREND**  
  Displays the utilization trend of CSA, ECSA, SQA, or ESQA at the system or job level. TREND accepts the following filter keywords: AREA, SYSTEM or JOB, and ASID.

- **USAGE**  
  Lists the users of CSA, ECSA, SQA, or ESQA. USAGE accepts these filter keywords: AREA and BOUND.

- **GROWTH**  
  Displays the fastest growing users of CSA, ECSA, SQA, or ESQA. GROWTH accepts these filter keywords: AREA and BOUND.

- **DETAIL**  
  Generates a detailed report on outstanding GETMAINed items. You must specify a jobname. DETAIL accepts these filter keywords: AREA, ASID, SUBPOOL, MINSIZE, JOB, and KEY.

- **ORPHAN**  
  Displays outstanding GETMAINed items whose original requestors are no longer active. You can specify SYSTEM for all jobs, or the jobname for a specific job. ORPHAN accepts these filter keywords: AREA, ASID, SUBPOOL, MINSIZE, JOB or SYSTEM, and KEY.

- **OWNER**  
  Shows the original requestor of a block of common storage. You must specify the start address or the address range of the common storage block. OWNER accepts these filter keywords: RANGE and KEY.

**Filter Keywords**

The function keyword you specify determines which of the following filter keywords is available to you. Most of the filter keywords have default values.

- **AREA(c)**
  
  Valid values for c: CSA, ESCA, SQA, or ESQA. Default value: CSA.

- **SYSTEM or JOB(c)**
  
  SYSTEM generates a system level report. JOB(c) generates a report for a specified job. An asterisk (*) indicates all jobs.

- **ASID(n)**
  
  Asid. An asterisk (*) indicates all asids of the specified jobname. Default value: *.
BOUND(n)
Specifies a lower bound in percent to limit display. Default value: 0.

SUBPOOL(n)
Subpool number. An asterisk (*) indicates all subpool numbers within the specified area. Default value: *.

KEY(n)
Storage key; any number from 0 to 15, or *. An asterisk (*) indicates all storage keys. Default value: *.

MINSIZE(n)
Limits the display to areas whose size is greater than or equal to minsize. Default value: 0.

RANGE(l,h)
Specifies low and high addresses that indicate the desired address range. Default value: all common storage addresses.

Interpreting the CSAA Display
An asterisk (*) to the right of a jobname indicates that the job has terminated.
A jobname of *SYSTEM* indicates that the issuer of a request is unknown.

Related Information: Other CSA™ Analyzer command: CSAF

CSAF
Type: OMEGAMON Immediate command
Description: Displays and frees orphan storage blocks.

Caution
Orphaned storage is all storage requested by an address space that has since terminated. Other users can still reference this storage. You therefore should not attempt to free any storage unless you know how the storage has been used and are sure it is no longer needed. If you free storage that other users are currently referencing, those users may abnormally terminate.

You can specify SYSTEM for all jobs, or the jobname for a specific job. Place an F before the job to free the displayed orphan storage areas.

The OMEGAMON CSAF command uses the following filter keywords:

AREA(c)
Valid values for c: CSA, ESCA, SQA, or ESQA. Default value: CSA.

SYSTEM or JOB(c)
SYSTEM generates a system level report. JOB(c) generates a report for a specified job. An asterisk (*) indicates all jobs.

ASID(n)
Some CSAF commands display a **RETURN** field. This is the return address of the getmain requestor. It points to the instruction after the getmain request.

**Related Information:** Other CSA Analyzer command: CSAA

**CSAR**

**Type:** OMEGAMON Minor command

**Description:** Displays the users of Common Storage Area (CSA) real storage by storage protect key. These are the usual protect key assignments:

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<tr>
<td>10-15</td>
<td>V=R programs</td>
</tr>
</tbody>
</table>

For more information on subpool assignments, see the appropriate IBM manual.
The following figure shows a typical CSAR display.

```
SYS  >> IPS=83,OPT=83,ICS=83,  SYSRES=(MVS123,145) <<
CSAR | Key | Used by      | CSA Real Memory |
+    | 0   | Supervisor   | 592K            |
+    | 1   | JES          | 172K            |
+    | 5   | Data Mgmt.   | 8K              |
+    | 6   | TCAM/VTAM    | 588K            |
+    | 7   | IMS          | 268K            |
+    | 8   | V=V          | 8K              |
+    |      |              | 1636K           |
```

**Related Information:** Minor of: SYS

Other system storage minor commands: CSA, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

**CSD**

**Type:** OMEGAMON Minor command

**Description:** Dumps Common System Data area.

By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

**CTAPxx**

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about magnetic tapes connected by channel path xx (XA, ESA).

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CUR xx, DSCnnn, DUTnnn, ESDK ccccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP ccccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

**CUR xx**

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about unit record devices connected by channel path xx (XA, ESA).
Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, DSCnnn, DUTnnn, EDSK ccccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP ccccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SSDKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

CVT

Type: OMEGAMON Minor command

Description: Dumps Communications Vector Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, DMDTnnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

CWSS

Type: OMEGAMON Minor command

Description: Displays common area target working set size in frames.

Related Information: Minor of: SYS

Other SRM information commands: CPGR, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK
### D Commands and Keywords

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</tr>
<tr>
<td>DSKG</td>
<td>153</td>
</tr>
<tr>
<td>DSKM</td>
<td>153</td>
</tr>
</tbody>
</table>
Commands and Keywords

/D

Type: OMEGAMON INFO-line command

Description: See /DOWN.

Related Information: None

.D

Type: OMEGAMON Immediate command

Description: Deletes the specified number of lines on the physical screen.

.Dbnnn

This command deletes lines beginning with the current line. For example, the following command deletes 5 lines on the physical screen.

.D 5

The default is 1.

Related Information: None

DADR

Type: OMEGAMON Minor command

Description: Displays the unit address of the device.

Related Information: Minor of: See Disk Information Commands in “Command Groupings” on page 17.

DALC

Type: OMEGAMON Minor command

Description: Displays number of allocations to the device.

Related Information: Minor of: See Disk Information Commands in “Command Groupings” on page 17.

DATA

Type: OMEGAMON Minor command (Authorized)

Description: Displays data space and Hiperspace utilization for a given address space. (There are other entries with the same name. See the next entry for a description of DATA as a minor of SEEK.)

The DATA minor of PEEK requires an APF-authorized environment. For data space information display, MVS/SP 3.1 (ESA) must be installed. For Hiperspace information display, DFP 3 must be installed.
Here is an example of the DATA minor display.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Owning Task</th>
<th>Current Size</th>
<th>Maximum Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDUMPSWA</td>
<td>Basic</td>
<td>CR8SPACE (007FE380)</td>
<td>64K</td>
<td>256K</td>
</tr>
<tr>
<td>MYHIPER</td>
<td>Scroll</td>
<td>HIPERPGM (007FD468)</td>
<td>1000K</td>
<td>4096K</td>
</tr>
<tr>
<td>HIPER2</td>
<td>Cache</td>
<td>HIPERPGM (007FDA50)</td>
<td>40K</td>
<td>100K</td>
</tr>
<tr>
<td>SDUMPALL</td>
<td>Basic</td>
<td>DSPPGM1 (007ED900)</td>
<td>4K</td>
<td>4K</td>
</tr>
</tbody>
</table>

If you put an X in the label field, DATA displays extended information.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Owning Task</th>
<th>Current Size</th>
<th>Maximum Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDUMPSWA</td>
<td>Basic</td>
<td>CR8SPACE (007FE380)</td>
<td>64K</td>
<td>256K</td>
</tr>
<tr>
<td>Key= 8</td>
<td>Fprot=NO</td>
<td>Dref=NO</td>
<td>Scope=SINGLE</td>
<td></td>
</tr>
<tr>
<td>MYHIPER</td>
<td>Scroll</td>
<td>HIPERPGM (007FD468)</td>
<td>1000K</td>
<td>4096K</td>
</tr>
<tr>
<td>Key= 7</td>
<td>Fprot=NO</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIPER2</td>
<td>Cache</td>
<td>HIPERPGM (007FDA50)</td>
<td>40K</td>
<td>100K</td>
</tr>
<tr>
<td>Key= 0</td>
<td>Fprot=YES</td>
<td>Castout=NO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDUMPALL</td>
<td>Basic</td>
<td>DSPPGM1 (007ED900)</td>
<td>4K</td>
<td>4K</td>
</tr>
<tr>
<td>Key= 8</td>
<td>Fprot=NO</td>
<td>Dref=NO</td>
<td>Scope=ALL</td>
<td></td>
</tr>
</tbody>
</table>

The following fields appear in the DATA display:

- **Name**: Name of the data-only space.
- **Type**: Type of data-only space. Valid types are basic, scroll, and cache.
  - **BASIC**: BASIC data space.
  - **SCROLL**: SCROLL-type Hiperspace.
  - **CACHE**: CACHE-type Hiperspace.
- **Owning Task**: Program name and TCB address associated with the owning task.
- **Size**: Current size of the data-only space in K.
- **Max Size**: Maximum allowable size of the data-only space in K.
- **Key**: Storage protect key of the data-only space.
- **Fprot**: Storage fetch protection indicator of the data-only space.
- **Dref**: Disabled reference storage indicator for the BASIC data space.
- **Scope**: Specifies whether the BASIC data space is shareable (ALL) or non-shareable (SINGLE) with other address spaces.
- **Castout**: Indicates whether the CACHE-type Hiperspace is being given special consideration when the system searches for pages to remove from expanded storage when a shortage arises.

Related Information: Minor of: PEEK
Other Authorized Minors that Collect Data about Address Spaces: AMAP, DDNS, JOBS, MODS, STEP, SUBP, and TCBS

**DATA2**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays detailed dataset information for one or all SEEKs. (There are other entries with the same name. See the previous entry for a description of DATA as a minor of PEEK.)

**[X]DATA ITEM(nnn | cccccc | *)**

- **X** An optional label which may be used to display extent information for each extent in a dataset associated with a displayed SEEK observation. If not specified, the display includes extent information for only the extent within the dataset accessed during the observed SEEK.
- **nnn** The 1-to 3-digit sample number that detailed information is requested for.
- **ccccccc** The 1-to 8-character jobname that detailed SEEK information is requested for.
- *** Displays detailed data for all observed SEEKs. (default)**

The following figure displays the output from a DATA detail display for all observed SEEKs:

```
-SEEK VOL(OMON28) INT(10)
+ Unit=3DC Volser=OMON28 Samples=70 Interval=010 ms SEEKs=20 Time=08:43:21
DATA ITEM(*)
+ # Jobname  ASID Dataset name                                 Cyl Ext Low Hi
+ -- -------- ---- -------------------------------------------- --- --- -------
+  3 TESTJOB1  1C  PAYROLL.TEST.FILE                            853  1  840 879
+  6 PRODJOBA  23  PAYROLL.PROD.FILE                             83  3  080 099
+  7 PRODJOBA  23  PAYROLL.PROD.FILE                             84  3  080 099
+  8 XYZJOB   15A  XYZJOB.DATA                                  773  4  773 773
+ 12 TSUSERX  76  TSUSERX.JCL.CNTL                            527 10  520 534
+ 15 TESTJOB1  1C  PAYROLL.TEST.FILE                             854  1  840 879
+ 19 TSUSERX  8D  TSUSERX.DUMP.LIST                            528 10  520 534
+ 21 TSUSERX  89  TSUSER.COMMON.CLIST                         880  1  880 884
+ 28 TESTJOB1  1C  PAYROLL.TEST.FILE                             855  1  840 879
+ 32 ABCJOB   143  ABCJOB.DATA                                 395  1  394 396
+ 35 TSUSERX  76  TSUSER.COMMON.CLIST                         881  1  880 884
+ 41 PRODJOBA  23  PAYROLL.PROD.FILE                             90  3  080 099
+ 42 TSUSERX  8D  TSUSER.DUMP.LIST                             528 10  520 534
+ 45 TESTJOB1  1C  PAYROLL.TEST.FILE                             859  1  840 879
+ 49 TSUSERX  76  TSUSER.JCL.CNTL                             310  2  310 310
+ 53 TSUSERX  8D  TSUSER.COMMON.CLIST                         881  1  880 884
+ 56 TSUSERX  8D  TSUSER.DUMP.LIST                             529 10  520 524
+ 61 TSUSERX  8D  TSUSER.COMMON.CLIST                         195  1  195 195
+ 62 XYZJOB   15A  XYZJOB.DATA                                 773  4  773 773
+ 63 PRODJOBA  23  PAYROLL.TEST.FILE                             853  1  840 879
```

**Related Information:** Minor of: SEEK

Other SEEK Contention Analysis Authorized Minors: PLOT and WSIZ nnn
DCAT

Type: OMEGAMON Minor command

Description: Displays whether a device (tape or disk) is static, installation-static, or dynamic. DCAT will display STATIC, I-STATIC, or DYNAMIC, to indicate the device category.

The DCAT command applies to MVS/SP 4.2 and above.

Related Information: Minor of: See Disk Information Commands and Tape Information Commands in “Command Groupings” on page 17.

/DCL

Type: OMEGAMON INFO-line command

Description: Deletes all comment lines on the screen. If you want to delete only those comment lines below a certain point on the screen, use the equivalent immediate command instead.

Related Information: None

.DCL

Type: OMEGAMON Immediate command

Description: Deletes all comment lines below its entry line. If you want to delete all comment lines on the screen, use the equivalent INFO-line command instead. Unlike most other immediate commands, .DCL disappears after it executes.

Related Information: None

/DDb

Type: OMEGAMON Immediate command

Description: Deletes a block of data.

To delete a block of data from the physical screen, enter ..DD on the first line of the block and .DD on the last line. For example, the following command deletes the line with the first .DD command and the succeeding 3 lines.

..DD
  DISK  SYSB24  TSO021  SYSB21  MVSA21
  DSKB  MVSA21  PROD05  SYSA24
  .DD 150 334   D8B

Related Information: None

DDNM

Type: OMEGAMON Minor command

Description: Directs the output to a particular ddname. The DDNM minor removes control from SYSOUT.
DDNM cccccc

If the value you type is not valid, OMEGAMON redisplays it where you typed it and does not transfer it to the pending column.

Related Information: Minor of: OUTP

Other print output options minors: COPY, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID3, ID4, LNCT, and SOUT

DDNS

Type: OMEGAMON Minor command (Authorized)

Description: Displays information about allocated ddnames.

[bd]DDNS[nn]

[X]DDNS[nn]

-b Displays all ddnames allocated to a jobstep and their corresponding device numbers, dataset names, and volume serial numbers.

X Requests extended information. For each TCB group of ddnames, XDDNS shows:

- LRECL Logical record.
- BLKSZ Blocksize.
- RECFM Record format.
- DSORG Dataset organization.
- PWD Password protection. A blank indicates that no dataset password is in effect.
- EXCP Execute channel program. This figure represents the number of I/Os (EXCPs) issued.
- TIOT Task I/O table address.

nn Suppresses the first nn lines of the display. This option is useful if all of the ddnames do not fit on one screen.

Here is an example of the DDNS display:

<table>
<thead>
<tr>
<th>PEEK</th>
<th>USER01</th>
<th>ASID=46, collected at 15:39:39</th>
</tr>
</thead>
<tbody>
<tr>
<td>ddns</td>
<td>DName</td>
<td>Address, Volume, Status, Dataset</td>
</tr>
<tr>
<td>+</td>
<td>PROC00</td>
<td>245 SYSRES SHR, KEE SYS1.PROCLIB</td>
</tr>
<tr>
<td>+</td>
<td>PROC01</td>
<td>246 USER01 SHR, KEE USER1.PROCLIB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>245 SYSRES SHR, KEE SYS2.PROCLIB</td>
</tr>
</tbody>
</table>

The following conditions apply to the DDNS display:

- The DDNS display includes dynamically allocated ddnames.
A blank ddname field indicates the dataset is part of a concatenation with preceding datasets.

DDNS displays only the first allocated volume in cases where a ddname is associated with a multi-volume dataset. A plus sign (+) immediately following the volser field indicates a multi-volume dataset.

**Related Information:**  Minor of: PEEK

Other Authorized Minors that Collect Data about Address Spaces: AMAP, DATA, JOBS, MODS, STEP, SUBP, and TCBS

---

**/DEF**

**Type:** OMEGAMON INFO-line command

**Description:** Inhibits automatic updating to allow screen space definition. This command allows you to define a screen space to include commands that comment themselves out or otherwise change form after execution.

**/DEF [ON|HOLD|OFF]**

**ON**  /DEF ON inhibits automatic updating during a dedicated mode session or a VTAM mode session with automatic updating activated (see the /AUP or .AUP command). Once you set definition mode with /DEF ON, it remains in effect until you issue /DEF OFF, or save or replace the screen space.

**HOLD**  Same as ON argument, but definition mode remains in effect after you save a screen space. It is only cancelled when you issue /DEF OFF. Use this option when you want to save two or more screens in a row without reactivating definition mode each time.

**OFF**  Restores normal screen updating (cancels the effect of /DEF ON or /DEF HOLD).

.DEF is the equivalent immediate command.

**Related Information:** None

---

**.DEF**

**Type:** OMEGAMON Immediate command

**Description:** Inhibits automatic updating to allow screen space definition. See /DEF, the equivalent INFO-line command, for the command description. If .DEF is entered without an argument, OMEGAMON displays the current definition mode status (ON, OFF, or HOLD).

**Related Information:** None

---

**DELT**

**Type:** OMEGAMON Immediate command

**Description:** Deletes a screen space from main storage and/or from the user’s screen space library, rhilev.midlev.RKOMPCSV, which is referenced by the RKOMPCSV DD statement.

DELT does not delete screen spaces from the Candle-supplied screen space library, rhilev.midlev.RKOMPROC, which is referenced by the RKOMPROC DD statement.
**DELTc aaaaaaaaa**

- **c** One of the following arguments that specifies the location of the screen space. Enter it in column 6:
  - **B** or **D** Deletes from both main storage and RKOMPCSV.
  - **I** Deletes from main storage (in-storage) only.
  - **D** Deletes from RKOMPCSV only.

- **aaaaaaaaa** The screen space name you want to delete. Specify the name starting in column 8.

For example, the following command deletes screen space SAMPLE from main storage.

```
DELTI SAMPLE
```

**Related Information:** None

**DEST**

**Type:** OMEGAMON Minor command

**Description:** Specifies the destination that is to receive the output. The DEST minor is under SYSOUT control.

```
DEST cccccccc
```

The default is *NONE*, which sends output to the local printer. The destination can be a terminal, a node, a remote work station, a local device or group of devices, or a user ID.

Your installation determines valid destinations. OMEGAMON checks your installation’s table for valid destinations only when you reset the log (with .LOGOUT or .XLFOUT). During initialization, OMEGAMON only checks syntax validity.

If the destination is a specific user ID (at the device destination), use the DSTU minor command for the user ID.

**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDNM, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID3, ID4, LNCT, and SOUT

**DEV**

**Type:** OMEGAMON Major command

**Description:** Selects the device (disk or tape drive) with volser cccccc or address xxxx.

```
DEV cccccc|xxxx
```

For example, if you supply the volser or the address of a disk, DEV displays the volser, the address, and the online or offline status of the disk.

If you enter:

```
DEV 0520
```
the result is:

```
DEV 0520 volser=TSO099 Online Alloc
```
Alternatively, you could supply the volser (TSO099).

**Related Information:** Major of: See Disk Information Commands and Tape Information Commands in “Command Groupings” on page 17.

### DEVL

**Type:** OMEGAMON Major command  
**Description:** Selects list of online disks by volser cccccc or unit address xxx.

```
DEVL cccccc ... cccccc|xxx ... xxx
```

DEVL selects a list of disks for examination, whereas DEV selects only one device at a time.

The following example shows disks at addresses 123 and 141 and volsers TSO021 and TSO022:

```
DEVL 123 TSO021 TSO022 141
```

If you list an invalid address or volser, or if you specify the same disk twice, OMEGAMON eliminates the invalid or duplicate value from the list.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

### DEVP

**Type:** OMEGAMON Major command  
**Description:** Selects a list of online disks using patterns set with .SPT.

```
DEVP/n
```

The variable n is a number from 0 to 9 indicating the pattern set with the .SPT immediate command.

For example, you could set the pattern and then display all online disks beginning with TSO as shown in this figure:

```
.SPT/9  TSO*  
DEVP/9  TSO024  TSO025  TSO021  TSO022  TSO023  TSO069
```

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

### DEX

**Type:** OMEGAMON Major command  
**Description:** Displays information about the status of the DEXAN data collector. DEXAN statistically analyzes degradation by surveying system resources to determine where a
workload is spending its time and whether it is spending that time productively or unproductively, (whether it is active or waiting).

The DEX command must precede any DEX minor commands on the screen for them to work. For example, to start the data collector you would enter DEX and BEGN in the following way:

```
DEX
BEGN
```

**Related Information:**

- Major of: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnmm, CNTnmm, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnmmn, FONnmmn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnmmn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnmmn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnmmn, PNOnnnnn, RESM, RSFnmmn, RSPnmmn, STIMUM, SUSP, SYNC, THRS, XCTnnnn, and XPGnmmn.

**DFRS**

**Type:** OMEGAMON Minor command

**Description:** Displays number of deferred frame allocations (XA, ESA). Use DFRSF to display the number of deferred fixed frame allocations.

**Related Information:** Minor of: SYS

Other frame minors: FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDFR, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLL, FPVT, FRON, FRWRN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

**DING**

**Type:** OMEGAMON Immediate command

**Description:** Forces the terminal bell (audible signal) to sound. The bell must be activated with the BELL=YES option of the OPTN immediate command. You can set the BELL=YES option through the menu system and save your setting in a user profile.

**Related Information:** None

**DIO**

**Type:** OMEGAMON Minor command

**Description:** Displays EXCPs issued to a device (tape or disk). DIO requires RMF.

**Note:** If RMF is not currently monitoring the device when you issue DIO, the command displays the message UNMNNTRD.

**Related Information:** Minor of: See Disk Information Commands and Tape Information Commands in “Command Groupings” on page 17.
DIOQ

**Type:** OMEGAMON Minor command

**Description:** Displays I/O queue length on the disk.

**Related Information:** Minor of: See Disk Information Commands in “Command Groupings” on page 17.

.DIR

**Type:** OMEGAMON Immediate command

**Description:** Executes a cross memory (XMF) or cross system (XSF) director command.

**.DIR ccccc**

.DIR lets you issue commands (cccccc) that control director and collector functions. This capability allows you to execute these commands from a screen space.

The commands are:
- .DIR ABORT (see /ABORT)
- .DIR ATTACH cccc (see /ATTACH)
- .DIR GIVE nn cccc (see /GIVE)
- .DIR TAKE nn cccc (see /TAKE)

**Related Information:** None

DISK

**Type:** OMEGAMON Major command

**Description:** Selects online disks. An argument of AL (DISKAL) displays all offline disks as well as those online.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

DISP

**Type:** OMEGAMON Minor command

**Description:** Displays dispatching algorithm in use for a job. The algorithm can be one of the following:
- MTW (Mean-Time-to-Wait)
- MTW (Mean-Time-to-Wait)
- ROTATE
- ROTATE algorithm
- TIME-SLC
- TIME-SLC algorithm
**Commands and Keywords**

- FIXED
- FIXED algorithm

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DPRT, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

**DL**

**Type:** OMEGAMON Immediate command

**Description:** Changes the low speed mode delimiter character.

\[ DLc \]

where \( c \) is the delimiter character.

**Related Information:** None

**DLST**

**Type:** OMEGAMON Immediate command

**Description:** Lists all online and offline disks. A hyphen (-) in the command display indicates the selected offline disks.

**Related Information:** Other Device Listing commands: GLST and TLST

**DMAR**

**Type:** OMEGAMON Minor command

**Description:** Displays number of average ready users for domains. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOM\( \text{nn} \)

Other Domain information minors: DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR

**DMAS**

**Type:** OMEGAMON Minor command

**Description:** Displays average user service rate for domains. The AOBJ parameter in IPS uses this average service rate.

When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOM\( \text{nn} \)

Other Domain information minors: DMAR, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR
DMCI

Type: OMEGAMON Minor command

Description: Displays contention index for domains. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

Related Information: Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR.

DMDS

Type: OMEGAMON Minor command

Description: Displays total service rate for domains. The DOBJ parameter in IPS uses this total service rate.

When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

Related Information: Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR.

DMDTnn

Type: OMEGAMON Minor command

Description: Dumps Domain Descriptor Table for domain nn, where nn is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAAnn, PCT, PGDT, PGVT, PSAnn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST.

DMGO

Type: OMEGAMON Minor command

Description: Displays number of users being swapped out of domains. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

Related Information: Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR.
DMIS

**Type:** OMEGAMON Minor command

**Description:** Displays number of swappable users per domain in real storage. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR

DMIT

**Type:** OMEGAMON Minor command

**Description:** Displays average In Target MPL over the interval, as calculated by SRM for the displayed domains MVS/SP 4.2 and above. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR

DMIX

**Type:** OMEGAMON Minor command

**Description:** Displays current values of the ESCRTABX parameter in the IPS member of the displayed domains MVS/SP 4.2 and above. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR

DMMN

**Type:** OMEGAMON Minor command

**Description:** Displays minimum MPL of domain. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIT, DMIX, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR

DMMX

**Type:** OMEGAMON Minor command

**Description:** Displays maximum MPL of domain. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.
**Related Information:** Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR

**DMN**

**Type:** OMEGAMON Immediate command

**Description:** Displays or modifies the domain name table.

The DMN command lets you assign descriptive names (up to 8 characters) to domain numbers for OMEGAMON reporting purposes. Displays use the multi-line input facility so you can change values easily. The following considerations apply to the multi-line input facility:

- You can modify any display line that begins with a colon in column 1.
- Blanking out fields has no effect; OMEGAMON redispers the line on the next cycle.
- To change a setting, type over the displayed value and press Enter.
- OMEGAMON marks modified entries with one of the following words: ADDED, UPDATED, or DELETED.

OMEGAMON treats commas, blanks, and parentheses in command syntax as delimiters.

When you issue the DMN command without any operands or keywords, OMEGAMON displays the first 100 entries or the entire domain table. The display that follows shows a typical domain table.

+DOMAIN Name

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>: 0</td>
<td>'SYSTEM*'</td>
</tr>
<tr>
<td>: 1</td>
<td>'REG BAT'</td>
</tr>
<tr>
<td>: 2</td>
<td>'TSO SHRT'</td>
</tr>
<tr>
<td>: 3</td>
<td>'TSO LONG'</td>
</tr>
<tr>
<td>: 4</td>
<td>'DOMAIN 4'</td>
</tr>
<tr>
<td>: 5</td>
<td>'DOMAIN 5'</td>
</tr>
<tr>
<td>: 6</td>
<td>'DOMAIN 6'</td>
</tr>
<tr>
<td>: 7</td>
<td>'DOMAIN 7'</td>
</tr>
<tr>
<td>: 8</td>
<td>'DOMAIN 8'</td>
</tr>
<tr>
<td>: 9</td>
<td>'DOMAIN 9'</td>
</tr>
</tbody>
</table>

+ There are 10 entries defined in the domain name table.

**DOMAIN** Specifies each domain by number.

**Name** Specifies the current symbolic name for each domain.

If you issue the DMN command with the DIS operand, OMEGAMON displays the domain name table in the format shown above (if you issue the DMN command without operands, OMEGAMON assumes the DIS operand). The syntax is as follows:
DMN DIS [NUMBER(n1,n2,...nn|n1 : n2)]
[ALL]

NUMBER Specifies a list, range, or combination of domain numbers. You can abbreviate this keyword to any uniquely identifiable string.

ALL Specifies all domain name table entries. If you specify the DIS operand without any additional keywords, OMEGAMON assumes the ALL keyword.

If you issue the DMN command with the ADD operand, you can add one or more entries to the domain name table. The syntax is as follows:

DMN ADD (n,cccccccc)

n,cccccccc Specifies a domain number and name to add to the table. Enclose the name in single quotes if it contains imbedded blanks. You can repeat this pair.

Typical output from the DMN ADD command is shown below.

>DMN ADD (11,USER01)
+ 11 ‘USER01’ ** ADDED **

If you issue the DMN command with the DEL operand, you can delete one or more entries from the domain name table. The syntax is as follows:

DMN DEL [NUMBER(n1,n2,...nn|n1 : n2)]
[ALL]

NUMBER Specifies a list or range of domain table numbers.

ALL Specifies all domain table entries.

Typical output from the DMN DEL command is shown below.

>DMN DEL N(4:5)
+DOMAIN Name
+ 4 ‘DOMAIN 4’ * deleted *
+ 5 ‘DOMAIN 5’ * deleted *

Related Information: Other table customization commands: PGN and XQN

DMNA

Type: OMEGAMON Minor command

Description: Displays domain name (assigned through the DMN immediate command). If the domain number exceeds the range defined to OMEGAMON, an error message (ER:RANGE) results.
This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

**Related Information:** Minor of: DOMnn and address space majors. See *Address Space Information Commands* in “Command Groupings” on page 17.

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMOQ, DMOT, DMPL, DMTG, DMWT, DMXR

Other Address Space Identification minors: ASID, .DMPxx, DOM#, PERD, PERF, PGNA, PROC, and STEP

**DMOQ**

**Type:** OMEGAMON Minor command

**Description:** Displays number of users swapped out. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMnn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOT, DMPL, DMTG, DMWT, DMXR

**DMOT**

**Type:** OMEGAMON Minor command

**Description:** Displays average Out Target MPL over the interval, as calculated by SRM for the displayed domains (MVS/SP 4.2). When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMnn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOT, DMPL, DMTG, DMWT, DMXR

**DMP**

**Type:** OMEGAMON Minor command

**Description:** Displays information at hex offset xx from ASCB or Unit Control Block (UCB).

**C.DMPxx**

or

**.DMxxx**

If you place the letter C in column 1, .DMP dumps 8 characters at offset xx in character format. If you want to specify a three-digit offset, use .DMxxx.

This command is considered to be a generalized minor, in that it applies to more than one group of major commands.
When you use .DMPxx with an address space major command, it displays 4 hex bytes at offset xx from the ASCB.

When you use .DMPxx with a device major command, it displays 4 hex bytes at offset xx from the device’s UCB.

**Related Information:** Minor of: See Address Space Information Commands and Device Information Commands in “Command Groupings” on page 17.

Other Address Space Identification minors: ASID, DMNA, DOM#, PERD, PERF, PGNA, PROC, and STEP

Other Device Listing commands: DLST, GLST, and TLST

---

**DMPL**

*Type:* OMEGAMON Minor command

*Description:* Displays current MPL. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMInn

Other Domain information minors DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMTG, DMWT, DMXR

---

**DMTG**

*Type:* OMEGAMON Minor command

*Description:* Displays Target MPL. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMTG, DMWT, DMXR

---

**DMWT**

*Type:* OMEGAMON Minor command

*Description:* Displays domain weighting factor. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMTG, DMWT, DMXR

---

**DMXR**

*Type:* OMEGAMON Minor command

*Description:* Displays maximum ready users in domain. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.
Related Information: Minor of: DOMInn

Other Domain information minors: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT

.DMxxx

Type: OMEGAMON Minor command
Description: See .DMP.
Related Information: None

DOM#

Type: OMEGAMON Minor command
Description: Displays domain number. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.
Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space Identification minors: ASID, DMNA, .DMPxx, PERD, PERF, PGNA, PROC, and STEP

DOMInn

Type: OMEGAMON Major command
Description: Selects domains starting at nn. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.
Related Information: Major of: DMAR, DMAS, DMCI, DMDS, DMGO, DMIS, DMIT, DMIX, DMMN, DMMX, DMNA, DMOQ, DMOT, DMPL, DMTG, DMWT, and DMXR

DOPN

Type: OMEGAMON Minor command
Description: Displays number of open DCBs and ACBs on the device.
Related Information: Minor of: See Disk Information Commands in “Command Groupings” on page 17.

/DOWN or /D

OMEGAMON INFO-line command
Description: Scrolls down the specified number of lines.

/DOWN cccc
cccc can be:

- **nnn** Scrolls nnn lines (from 1–999).
- **BOT** Scrolls to the last logical row.
- **CSR** Scrolls according to the current location of the cursor. If the cursor is on the INFO-line, the scroll amount is a page.
- **MAX** Scrolls down the number of LROWS defined for your terminal.
- **PAGE** Scrolls down so that the current cursor position is at the bottom of the physical screen. This is the default.

/DOWN works only if the number of logical rows is defined to a number greater than the number of physical rows on this terminal. This definition can be changed with the LROWS startup parameter.

If you assign the /DOWN command to a PF key (the default is PF20), you can type any of the optional arguments on the INFO-line before you press the PF key. OMEGAMON will interpret the entry as if you had typed the command plus the argument.

**Related Information:** None

## DPIN

**Type:** OMEGAMON Minor command

**Description:** Displays whether device’s UCB (tape or disk) is pinned. DPIN will display PINNED, UNKNOWN, or a field of blanks, to indicate the device status.

The DPIN command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: See Disk Information Commands and Tape Information Commands in “Command Groupings” on page 17.

## DPLT

**Type:** OMEGAMON Minor command

**Description:** Displays disk activity every nn milliseconds. (There are other entries with the same name. See the next entry for a description of DPLT as a minor of tape majors.)

**DPLTnn**

DPLT allows inspection of processes that occur between OMEGAMON cycles. For any given major device command, DPLT takes 50 samples every nn milliseconds. DPLT only plots the first device that the major specifies. Each sample indicates changes in device status and user.

As the plot progresses from left to right, a number of fields show either the status of the address space or its activity since the last sample. One column in the display represents each sample.

If you use DPLT as a minor command of DSKQ, OMEGAMON only performs the sampling when there is a need, such as when a disk has an I/O queue length of nn or more and is, therefore, selected by the DSKQ command.
To monitor a specific device, use DPLT as a minor command of DEV xxx, where xxx specifies the device number.

The following screen display shows an example of the DPLT command used with the DSKQ major.

```
DSKQ01 MVS005
DPLT03    OMEGAMON Peek at unit=138 volser=MVS005
+    DBsy    DDDD    DD    DDDDDDD    DDDDDDDDDDDDDDDDDDD    DDDD    |    Samples: 50
+    CBsy    C    CCCC    |    Interval: 4
+    Chan    HH    |    I/O#s: 6
+    IOQ    1    111221111    11223222222222111111    2222    +    |    DBsy  DDDD    DD    DDDDDDD    DDDDDDDDDDDDDDDDDDD    DDDD    |    Samples: 50
+    |CBsy    C    CCCC    |    Interval: 4
+    |Chan    HH    |    I/O#s: 6
+    |IOQ    1    111221111    11223222222222111111    2222    +    |    DBsy  DDDD    DD    DDDDDDD    DDDDDDDDDDDDDDDDDDD    DDDD    |    Samples: 50
+    |CBsy    C    CCCC    |    Interval: 4
+    |Chan    HH    |    I/O#s: 6
+    |IOQ    1    111221111    11223222222222111111    2222    +    |    DBsy  DDDD    DD    DDDDDDD    DDDDDDDDDDDDDDDDDDD    DDDD    |    Samples: 50
+    |CBsy    C    CCCC    |    Interval: 4
+    |Chan    HH    |    I/O#s: 6
+    |IOQ    1    111221111    11223222222222111111    2222    +    |    DBsy  DDDD    DD    DDDDDDD    DDDDDDDDDDDDDDDDDDD    DDDD    |    Samples: 50
+    |CBsy    C    CCCC    |    Interval: 4
+    |Chan    HH    |    I/O#s: 6
+    |IOQ    1    111221111    11223222222222111111    2222    +    |    DBsy  DDDD    DD    DDDDDDD    DDDDDDDDDDDDDDDDDDD    DDDD    |    Samples: 50
+    |CBsy    C    CCCC    |    Interval: 4
+    |Chan    HH    |    I/O#s: 6
```

To report on the I/O# subfield properly, DPLT requires RMF to be monitoring the device.

The Interval value to the right is the true interval between samples, calculated after DPLT completes processing. On a system running perfectly, this number is the same as the nn sampling interval. This number may vary due to your system’s workload.

The above example shows that the DSKQ01 command selected a disk with a volser of MVS005 because it had an I/O queue length of one or more. The minor command DPLT03 plots the activity on the selected device at 3 millisecond intervals (OMEGAMON always takes 50 samples). The resulting plot shows two jobs (PAYROLL and SORT) competing for the disk arm at cylinder addresses 280 and 403. This explains the I/O queue on the selected device. Even though we specified a 3 millisecond interval (DPLT03), the actual interval that appears is 4 milliseconds (Interval: 4). This is because other address spaces operated at a higher priority than OMEGAMON at the time.

The following fields appear in the display:

- **DBsy**: D indicates device busy. S (XA and ESA) indicates suspended channel program.
- **IOQ**: Length of IOQ. A value greater than 9 but less than 36 is given by a letter of the alphabet, where A=10, B=11, and so on. A value greater than 35 is given by a plus (+) sign.
- **I/O#**: Wraparound I/O#. (The > indicates the point at which OMEGAMON calculates a new wraparound I/O#. The new number appears to the right of the >, and indicates the end of the I/O.)
- **CPU**: Can be one of these symbols:
  - |: CPU dispatchable. This character indicates that the address space has at least one TCB ready to be dispatched.
  - .: Waiting. This character indicates that no TCBs are ready to execute.
**Related Information:** Minor of: See Disk Information Commands in “Command Groupings” on page 17.

**DPLT**

**Type:** OMEGAMON Minor command

**Description:** Plots tape device activity every \( nn \) milliseconds. (There are other entries with the same name. See the previous entry for a description of DPLT as a minor of disk majors.)

**DPLTnn**

DPLT allows inspection of processes that occur between OMEGAMON cycles. For any given major device command, DPLT takes 50 samples every \( nn \) milliseconds. DPLT only plots the first device which the major specifies. Each sample indicates changes in device status and user.

To report on the I/O# subfield properly, DPLT requires RMF to be monitoring the device.

The following screen display shows the DPLT minor command used with the DEV major.

```plaintext
DEV 522 Online
DPLT02 ________ OMEGAMON Peek at unit=522 volser=...... _______
+      |DBsy                                                    | Samples:   50
+      |CBsy                                                    | Interval:   6
+      |Chan                                                    | I/O’s:
+      |IOQ   111111111111111111111111111111111111111111111111111 |
+      |I/O#                                                    |
+      |CPU                                                     |
+      |User                                                    |
+      |Cyl                                                     |
+      |Nrdy  NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN |
+      |Resv                                                    |
```
The following fields appear on the display:

- **DBsy**: D indicates device busy. S indicates suspended channel program.

- **IOQ**: Length of IOQ. A value greater than 9 but less than 36 is given by a letter of the alphabet, where A=10, B=11, and so on. A value greater than 35 is given by a plus (+) sign.

- **I/O#**: Wraparound I/O#.

- **CPU**: Can be one of these symbols:
  - |: CPU dispatchable. This character indicates that the address space has at least one TCB ready to be dispatched.
  - .: Waiting. This character indicates that no TCBs are ready to execute.

- **User**: Current user.

- **Cyl**: Cylinder address. Rls in this field indicates that a standalone release is in progress, and, therefore, no cylinder is involved.

- **Nrdy**: Not ready.

- **Resv**: Device reserved this CPU.

**Related Information**: Minor of: See **Tape Information Commands** in “Command Groupings” on page 17.

**DPRT**

- **Type**: OMEGAMON Minor command

- **Description**: Displays dispatching priority. The priority appears in hex and decimal.

**Related Information**: Minor of: See **Address Space Information Commands** in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

**DRES**

- **Type**: OMEGAMON Minor command

- **Description**: Displays device reserve count from this CPU.

**Related Information**: Minor of: See **Disk Information Commands** in “Command Groupings” on page 17.

**.DSA**

- **Type**: OMEGAMON Immediate command (Authorized)

- **Description**: Sets and displays authorization to list and/or zap non-shareable data-only spaces. The .DSA command provides a mechanism to limit the scope of the listing and
zapping commands to shareable data-only spaces (data spaces or hiperspaces that have been defined by the owner as able to be shared by other address spaces).

**Command operands:**

- **ON**
  
  Turns on data-only space authorization (access is allowed to all data-only spaces).

- **OFF**
  
  Turns off data-only space authorization, that is, access is restricted to shareable spaces only.

Entering .DSA with no operand displays the current status of data-only space authorization.

The .DSA command exists to provide an extra level of protection when using OSPC, SCHN, SLST, SSCN, and SZAP.

**Related Information:** Other Data Space and Hiperspace Storage commands: OSPC, SCHN, SLST, SSCN, and SZAP

---

**DSCnnn**

**Type:** OMEGAMON Minor command

**Description:** Sets threshold for average device disconnect time > nnn milliseconds (XA).

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnnn, CTAPxx, CUR xx, DUTnnnn, EDSK ccccc, IOSnnnn, LCHRxxxx, LCOMxxxx, LCTCxxxx, LCU xxx xxx, LDSKxxxx, LGRAxxxx, LTAPxxxx, LUR xxx, PDSK cccccc, PNDnnnn, PTAP cccccc, RSPnnnn, SCHRxxxx, SCOMxxxx, SCTCxxxx, SDKxxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

---

**.DSE**

**Type:** OMEGAMON Immediate command

**Description:** Displays the status of stacked screens. The .DSE command displays the status of screens stacked with the /STK INFO-line command. The information includes the screen space name, the GETMAINed size in bytes of each screen space, a time stamp that indicates when you stacked the screen, the total amount of storage allocated for all stacked screens, and the relative position of the current stack entry pointer.

The current stack entry pointer is the arrow that is labelled current in the .DSE display. The entry pointer indicates which screen space in the stack has most recently been referenced with a /STK INFO-line command. If you issue the /STK command with an up or down argument, the pointer moves to the entry above or below the current entry.
Following is a typical .DSE immediate command display.

<table>
<thead>
<tr>
<th>.DSE</th>
<th>Entry</th>
<th>Screen</th>
<th>Size (bytes)</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>1</td>
<td>#01</td>
<td>17987</td>
<td>10:27:14</td>
</tr>
<tr>
<td>+</td>
<td>current --&gt; 2</td>
<td>SYSLOAD</td>
<td>17987</td>
<td>11:08:30</td>
</tr>
<tr>
<td>+</td>
<td>3</td>
<td>OMINITZZ</td>
<td>17987</td>
<td>11:56:00</td>
</tr>
<tr>
<td>+</td>
<td>Total stack size:</td>
<td>53961</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Related Information:** None

**DSKB**

**Type:** OMEGAMON Major command

**Description:** Selects busy disks.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

**DSKC**

**Type:** OMEGAMON Major command

**Description:** Selects disks with suspended channel programs.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

**DSKE**

**Type:** OMEGAMON Major command

**Description:** Selects permanently resident disks.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

**DSKG**

**Type:** OMEGAMON Major command

**Description:** Selects mass storage (MSS) virtual disks.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

**DSKM**

**Type:** OMEGAMON Major command

**Description:** Selects disks waiting on mounts.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.
DSKN

**Type:** OMEGAMON Major command  
**Description:** Selects disks with volsers that start with `cc`.

**DSKNcc**

The following example selects disks with volsers that begin with the characters TS, such as all TSO disks:

**DSKNTS**

**Related Information:** Major of: See *Disk Information Commands* in “Command Groupings” on page 17.

DSKP

**Type:** OMEGAMON Major command  
**Description:** Selects DASD volumes with a mount status of PUBLIC.

**Related Information:** Major of: See *Disk Information Commands* in “Command Groupings” on page 17.

DSKQ

**Type:** OMEGAMON Major command  
**Description:** Selects disks with I/O queue length of `nn` or more.

**DSKQnn**

The DPLTnn minor command plots a microscopic analysis of device utilization. You can use it to investigate disks with I/O queues.

**Related Information:** Major of: See *Disk Information Commands* in “Command Groupings” on page 17.

DSKR

**Type:** OMEGAMON Major command  
**Description:** Selects disks with a RESERVE currently issued from this CPU.

**Related Information:** Major of: See *Disk Information Commands* in “Command Groupings” on page 17.

DSKS

**Type:** OMEGAMON Major command  
**Description:** Selects DASD volumes with a mount status of STORAGE.

**Related Information:** Major of: See *Disk Information Commands* in “Command Groupings” on page 17.
DSKU

**Type:** OMEGAMON Major command

**Description:** Selects disks with UCBnames starting with x.

DSKUxx

The variable xx specifies the UCBnames with which the disks begin. This may or may not correspond to control unit xx. DSKUxx does not consider alternate paths.

The following example selects disks with UCBnames that start with 58, which includes disks 580 through 58F:

```
DSKU58
```

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

DSKV

**Type:** OMEGAMON Major command

**Description:** Selects DASD volumes with a mount status of PRIVATE.

**Related Information:** Major of: See Disk Information Commands in “Command Groupings” on page 17.

DSN

**Type:** OMEGAMON Immediate command

**Description:** Displays dataset label information given DSN. DSN displays tape or disk volume dataset label information. The command name begins in column 2 and the dataset name begins in column 7. OMEGAMON automatically supplies the name of the volser, and replaces the command DSN with DSNV to indicate that it found the volser name.

To execute the command in dedicated mode, you must position the cursor down to the next line.

If you enter:

```
DSN XOSCAN.OMM.A.TEST
```

the result is:

```
>DSNV SYS010 XOSCAN.OMM.A.TEST
>       Creat-Dt Expir-Dt LastAcs P Alloc  Used XT SEC DSORG BLKSZ LRECL RECFM
>       92/05/15                         8     6  2   1   PO  3120   255 VB
```
These are the fields on the display:

- **Creat-Dt**: Creation date
- **Expir-Dt**: Expiration date
- **Last-Acs**: Date of last access
- **P**: Password protection
- **Alloc**: Total tracks allocated
- **Used**: Total tracks used
- **XT**: Number of extents
- **SEC**: Secondary allocation (in tracks or blocks)
- **DSORG**: Dataset organization
- **BLKSZ**: Block size
- **LRECL**: Logical record length
- **RECFM**: Record format

The > next to DSNV in the display indicates that the command changed to a comment to prevent re-executing on subsequent cycles. To allow the command to execute on the next cycle, space over the >.

If you want information on a dataset that is uncataloged, you must use DSNV instead of DSN, and provide the name of the volser along with the dataset name. An example of the DSNV command:

**DSNV SYS010 XOSCAN.OMM.A.TEST**

**Related Information**: Other Dataset information command: LOC

---

**DSNV**

**Type**: OMEGAMON Immediate command

**Description**: See DSN.

**Related Information**: None

---

**DSPA**

**Type**: OMEGAMON Minor command (Authorized)

**Description**: Displays details of the data FNDU collected. For example:

```
FNDU MVS001 245 2 User(s) Holding 3 Allocation(s)
DSPA DDName Sta,Disp DSName
+ TSO005 SYSUT1 OLD,KEEP SYS3.DATALIB
+ SYS00001 SHR,KEEP SYSCtrlG.VMVS001
+ PRODJOB TMPFILE * NEW,PASS TMPFILE
```
This display indicates that job TSO005 has two datasets allocated on MVS001, and that job PRODJOB has one dataset. The asterisk (*) indicates that dataset TEMPFILE is currently open. DSPA accepts a 2-digit argument to suppress the first nn lines of output.

**Related Information:** Minor of: FNDU

Other Find Users of a Device Authorized minors: DSPC, DSPO, and WSIZ nn

**DSPC**

**Type:** OMEGAMON Minor command

**Description:** Displays dataspace utilization (in pages) by an address space (ESA only). (There are other entries with the same name. See the next entry for a description of DSPC as a minor of FNDU.) DSPC displays the number of 4K blocks of virtual storage in use. Only user key dataspaces are included. This is valid for systems running MVS/SP 3.1.0 or later.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI

**DSPC**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays only those allocations that are currently closed. (See previous entry for a description of DSPC as a minor of address space majors.)

**Related Information:** Minor of: FNDU

Other Find Users of a Device Authorized minors: DSPA, DSPO, and WSIZ nn

**DSPO**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays only those allocations that are currently open.

**Related Information:** Minor of: FNDU

Other Find Users of a Device Authorized minors: DSPA, DSPC, and WSIZ nn

**DSTA**

**Type:** OMEGAMON Minor command

**Description:** Displays mount status. Status can be:

- PRIVATE
- PUBLIC
- STORAGE

**Related Information:** Minor of: See Disk Information Commands in “Command Groupings” on page 17.
DSTU

**Type:** OMEGAMON Minor command

**Description:** Specifies the destination user ID to receive a report. The DSTU minor is under SYSOUT control.

**DSTU cccccccc**

The default is *NONE*, which sends output to the local printer. Enter the destination user ID in the format established for your installation.

Your installation determines valid destinations. OMEGAMON checks your installation’s JES parameters for valid destinations only when you reset the log (with .LOGOUT or .XLFOUt). During initialization, OMEGAMON only checks syntax validity.

**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDNM, DEST, FOLD, FORM, HOLD, ID1, ID2, ID3, ID4, LNCT, and SOUT

DTYP

**Type:** OMEGAMON Minor command

**Description:** Displays device type (tape or disk).

**Related Information:** Minor of: See Disk Information Commands and Tape Information Commands in “Command Groupings” on page 17.

DUMP

**Type:** OMEGAMON Major command

**Description:** Displays dumps of control blocks as specified by its minors. An argument of AD shows the starting address of the control block. To dump a UCB, use the DVMP minor command of DEV. Each minor command displays a different control block.
The following figure shows typical hex dumps of address space control block 19 and the SRM control table.

### Related Information:
- Major of: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBoxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PDGT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

### DUSR
- **Type:** OMEGAMON Minor command
- **Description:** Displays current user of device (tape or disk).
- **Related Information:** Minor of: See Disk Information Commands and Tape Information Commands in “Command Groupings” on page 17.

### DUTnnn
- **Type:** OMEGAMON Minor command
- **Description:** Sets threshold for average device utilization > nnn percent (XA).
- **Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSDKxx, CGRAXx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, EDSKcccccc, IOSnnn, LCHRxxx, LCوخxx, LCTCxx, LCU xxx xxx, LDSKxxx, LGRAxx, LTAPxxx, LUR xxx, PDSKcccccc, PNDnnn, PTAP ccccc, RSPnnn, SCHRxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK
DVCT

**Type:** OMEGAMON Minor command

**Description:** Displays device connection time in seconds (XA).

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DPRT, JCAF, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

DVMP

**Type:** OMEGAMON Minor command

**Description:** Displays unit control block (UCB) hex dump for disks. (There are other entries with the same name. See the next entry for a description of DVMP as a minor of tape majors.) DVMP dumps the UCB, the UCB prefix, and all appropriate extensions for the disk. It also shows the device status. The following screen shows a typical DVMP display.

```
DEV     SYS640
dvmp  Mount Status: Perm_Res Private
      Status:                Waiting I/O’s:                Status: Ch_Active - Suspended Channel Program <Paging Device>
      User: *MASTER*
      UCB Prefix: 00001188
      00000000 00FF39B4
      UCB Common + DASD Device Dependent Segment: 00001190
      008BFF8C 0240A201 B0000100 00F1F4F0 3010200E 0008D38 19D70100 E2E8E2F0
      F2F45000 00000400
      Common Extension: 00008D38
      00000000 18820040 000A0000 F755001A 01000000 00022898 0000EAF0 00100005
```
DVMP dumps the tape class extension for 3480s in both native and compatibility modes. The device status indicates the ASSIGN status for 3480s (in native mode) as:

- **<N-Assign>** Not assigned to any processor.
- **<S-Assign>** Assigned to a single processor (the processor on which OMEGAMON is executing).
- **<M-Assign>** Assigned to multiple processors.

The following figure shows an example of the DVMP command.

```
TP38 0370 0371
dvmp Mount Status:
  + Status:
  + User: -none- Waiting I/O's:
  + Status: <N-Assign>
  + UCB Prefix: 00002008
    00000000 00000000
  + UCB Common + Tape Device Dependent Segment: 00002010
    0010FF00 01700002 00000300 04F1F7F0 33008003 000097E8 00000000 00000000
    00000000 00000000 00000000 0000E9B0
  + Common Extension: 000097E8
    091C8000 180C0000 01660000 00000000 00000000 000022AF0 0000F0D0 00000000
  + Tape Extension: 0000E9B0
    00000000 00000000 00000000 00000000
  + Tape Class Extension: 0000F0D0
    00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
    00000000 00000000 00000000
```

**Related Information:** Minor of: See Tape Information Commands in “Command Groupings” on page 17.

**DVOL**

- **Type:** OMEGAMON Minor command
- **Description:** Displays volser of selected device (tape or disk). If the tape drive is not allocated, OMEGAMON displays --------.

If a tape mount is outstanding for the drive, M*vvvvvvv appears. The variable vvvvvv is the volume serial number.

**Related Information:** Minor of: DEV and DEVL.

**dWPF**

- **Type:** OMEGAMON Immediate command
- **Description:** Display WPF status and list the current profiles.

```
dWPF [xx][JOB(ccccccccc*)]
```
Commands and Keywords

[STC(ccccccccl*)]
[PGN(nnnl*)]
[PGN(nnnl*)PGP(nl*)]
[PGN(nnnl*)PERIOD(nl*)]

xx An integer value that requests OMEGAMON to skip the first xx lines of output. If you use this value, you must specify it as the first operand.

JOB Identifies a specific batch job or all batch jobs. Use JOB(cccccccc) to display profiles for a particular batch job or JOB(*) to display profiles for all batch jobs.

STC Identifies a specific started task or all started tasks. Use STC(cccccccc) to display profiles for a particular started task or STC(*) to display profiles for all started tasks.

PGN Identifies a performance group. Use PGNnnn) to display profiles for a particular performance group, PGN(*) PGP(*) to display profiles for all performance groups, or PGN(*) to display performance groups with no defined periods.

PGP Identifies a particular performance group period. Please note the following:

- If WPF is not active, OMEGAMON ignores dWPF and all its keywords.
- If you specify the JOB and STC keywords, you cannot specify the PGN or PGP keywords.
- You cannot specify the PGP keyword without the PGN keyword.

Related Information: Other Workload Profile Facility Commands: EPCE, EPRE, ETAE, ETRE, jWPF, and WPF
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<td>175</td>
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<td>175</td>
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Commands and Keywords

ECSA

Type: OMEGAMON Minor command

Description: Displays a job's usage of ECSA. (There are other entries with the same name. See the next entry for a description of ECSA as a minor of SYS.)

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI

ECSA

Type: OMEGAMON Minor command

Related Information: Displays extended common storage area (ECSA) by subpool and protect key (XA, ESA). (There are other entries with the same name. See the previous entry for a description of ECSA as a minor of address space majors.)

The following figure shows a typical display of ECSA utilization.

<table>
<thead>
<tr>
<th>Subpl-Key</th>
<th>Ext</th>
<th>Alloc. Blks</th>
<th>Storage Used</th>
<th>Largest Free Blk</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 227-0</td>
<td>1</td>
<td>4K</td>
<td>72</td>
<td>3K+952</td>
</tr>
<tr>
<td>+ 228-5</td>
<td>1</td>
<td>24K</td>
<td>24K</td>
<td></td>
</tr>
<tr>
<td>+ 241-0</td>
<td>1</td>
<td>4K</td>
<td>2K+72</td>
<td>1K+264</td>
</tr>
<tr>
<td>+ 241-1</td>
<td>1</td>
<td>8K</td>
<td>4K+544</td>
<td>3K+480</td>
</tr>
<tr>
<td>+ Total:</td>
<td>4</td>
<td>40K</td>
<td>30K+688</td>
<td>960K</td>
</tr>
<tr>
<td>+ Percent of ECSA:</td>
<td>4.0%</td>
<td>3.1%</td>
<td>96.0%</td>
<td></td>
</tr>
<tr>
<td>+ ECSA size:</td>
<td>1,000K</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subpl-Key: Storage by subpool and key. These are the usual protect key assignments:

0 Control Program
1 Job Scheduler and JES
2,3,4 Reserved
5 Data Management: IOS, OPEN/CLOSE/EOV
6 TCAM and VTAM
7 IMS & DB2
8 All V=V programs
9 Public Storage Key
Commands and Keywords

When an ECSA overflow condition occurs, the following line appears at the bottom of ECSA output:

(ECSA SIZE DOES NOT INCLUDE nnnk OF ECSA CONVERTED TO ESQA)

Related Information: Minor of: SYS
Other system storage minors: CSA, CSAR, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

EDSK cccccc

Type: OMEGAMON Minor command

Description: Displays statistics about disk information by volser pattern cccccc (XA). This display supplements the PDSK display and includes control unit busy, device busy, and ESCON switch port busy delay times. This minor command applies to RMF 3.3 and above.

If an asterisk is the last character in the volser pattern, any character after that point meets the selection criteria. For example, the pattern VS* displays the volumes VSRESA, VSAM01, VS, and so on.

Related Information: Minor of: STAT
Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, IOSnnn, LCHRxx, LCOMxxx, LCTCxx, LCU xxx xxx, LDKxxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK cccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

ELAP

Type: OMEGAMON Minor command

10-15 V=R programs
For more information on subpool assignments, see the appropriate IBM manual.

Ext
Number of extents.

Alloc. Blks
Storage that the VSM assigned to the subpool.

Storage Used
Part of the subpool allocation that has been used to satisfy a GETMAIN request.

Largest Free Blk
Largest piece of storage that is in a subpool allocation, but has not been used to satisfy a GETMAIN request.

Total
Ext, Alloc. Blks, and Storage Used totals are sums of the subpools displayed above. Largest Free Blk is the largest free block of all subpools or of unallocated storage.

When an ECSA overflow condition occurs, the following line appears at the bottom of ECSA output:

(ECSA SIZE DOES NOT INCLUDE nnnk OF ECSA CONVERTED TO ESQA)
Description: Displays elapsed time for address space. The display uses one of the following formats:

- **sss**  SEC (seconds)
- **mm:ss**  MN (minutes)
- **hh:mm**  HR (hours)
- **dd:hh**  DY (days)

For example:

```
BATJ USER21A DUMPJOB
ELAP  25 SEC  5:39 MN
```

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: THNK, TLTW, TMCP, TMIO, TMLA, TMLR, TMPD, TMSW, TMTR, TMWL, WAIT, and WATL

**EMAP**

Type: OMEGAMON Minor command

Description: Displays map of expanded storage (XA, ESA). EMAP shows pageable areas of real storage that have been moved to expanded storage. If you execute EMAP on a system without expanded storage, **n/a** (for not applicable) appears.

If you execute EMAP on a system running MVS/SP 3.1.0 or later, EMAP includes expanded storage in use for data spaces and expanded storage in use for data space management.

```
+-----------------+------------------+
<table>
<thead>
<tr>
<th>Major Area</th>
<th>Total</th>
</tr>
</thead>
</table>
|                +------------------+
| Available       |  800K            |
|                 +------------------+
| Virtual Fetch   |  800K            |
|                 +------------------+
| Data Spaces     |  100K            |
|                 +------------------+
| Data Space Mgmt |  16K             |
|                 +------------------+
| Total           |  64M             |
|-----------------+------------------+
```

```
SYS   >> IPS=XA,OPT=XA,ICS=XA, SYSRES=(MP310A,163) <<
EMAP  Major Area          Total    Minor Area             K-bytes
+        ============================================================
+        Extended Private  20,872K                          20,872K
+        ---------------------------------------------------------
+        Extended Common    2,796K       CSA             1,764K
+                MLPA
+                PLPA            924K
+                DREF (ESQA)    108K
+        ---------------------------------------------------------
+        Common             1,756K       PLPA            408K
+                MLPA
+                CSA             1,348K
+        ---------------------------------------------------------
+        Private           39,088K                          39,088K
+        ---------------------------------------------------------
+        Available         800K                             800K
+        Virtual Fetch     800K                             800K
+        Data Spaces       100K                             100K
+        Data Space Mgmt   16K                              16K
+        Total             64M                             64M
```
Related Information: Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP
END

**Type:** OMEGAMON Minor command

**Description:** Stops the DEXAN data collector. To stop the DEXAN data collector, use the END command. For example:

```
DEX
END
```

DEXAN acknowledges your request and stops collecting data. NUMAnn, NUMFnn and NUMPnn can now be changed. To restart DEXAN, use BEGN.

**Note:** Terminating DEXAN with this minor command does not terminate OMEGAMON.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTAnn, CNTAAnn, CNTFnn, CNTJnn, CNTS, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn,NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

ENV

**Type:** OMEGAMON Minor command

**Description:** Displays the following system environmental information:

- the current level of MVS
- the operating environment
- if applicable, the current LPAR or domain number
- the processor’s unit number
- the processor’s model number
- the processor serial number
- the date and time of the last IPL
- whether RMF is active
- the ESCON status of the processor MVS/SP 4.2 and above
- whether there is an ESCON director in the configuration MVS/SP 4.2 and above
- whether MVS is running in compatibility or goal mode (MVS/SP 5.1 and above)

ASID and FMID, if displayed, refer to the method by which OMEGAMON determined the RMF level.

The POPT command can enable or disable processing of MDF data so that ENV will or will not attempt to determine the domain number in an AMDAHL environment. For further information, see POPT.

**Related Information:** Minor of: SYS
EPCE

**Type:** OMEGAMON Minor command

**Description:** Displays estimated percent of completion based on WPF profile elapsed time. This command requires WPF to be active. Elapsed time is an average.

**Related Information:** Minor of: Address space majors. See *Address Space Information Commands* in “Command Groupings” on page 17.

Other Workload Profile Facility commands: dWPF, EPRE, ETAE, ETRE, jWPF, and WPF

EPRE

**Type:** OMEGAMON Minor command

**Description:** Displays estimated percent of time remaining before job will complete (based on WPF profile elapsed time). When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: Address space majors. See *Address Space Information Commands* in “Command Groupings” on page 17.

Other Workload Profile Facility commands: dWPF, EPCE, ETAE, ETRE, jWPF, and WPF

ESAV

**Type:** OMEGAMON Minor command

**Description:** Displays number of expanded storage frames and bytes (in K) available to system (XA, ESA).

\[ c \text{ESAV} \]

where \( c \) represents a plot character.

If you execute ESAV on a system without expanded storage, \( \text{n/a} \) (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

ESCM

**Type:** OMEGAMON Minor command

**Description:** Displays number of common area frames and bytes (in K) in expanded storage (XA 3090™).

\[ c \text{ESCM} \]

where \( c \) represents a plot character.

If you execute ESCM on a system without expanded storage, \( \text{n/a} \) (for not applicable) appears.

**Related Information:** Minor of: SYS
ESDR

**Type:** OMEGAMON Minor command

**Description:** Displays the number of DREF frames in expanded storage (ESA only).

`cESDR`

where `c` represents a plot character.

ESDR displays data in K.

If you execute ESDR on a system without expanded storage, `n/a` (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESM, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

ESFC

**Type:** OMEGAMON Minor command

**Description:** Number of frames of expanded storage used by address space (XA). For example:

```
JOBN QR1618
ESFC     2
```

The display shows that address space QR1618 is using 20 frames of expanded storage.

If you execute ESFC on a system without expanded storage, `n/a` (for not applicable) appears.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESQA, ESMG

ESMG

**Type:** OMEGAMON Minor command

**Description:** Displays expanded storage migration data (XA and ESA). ESMG displays the following expanded storage migration data:

- migration age
- migration rate
- selection criteria
- pages eligible for expanded storage

An argument of D displays only the first line (migration age and migration rate).
An argument of C displays only the selection criteria.

The expanded storage selection criteria (as SYS1.PARMLIB specifies) determines which pages are eligible to go to expanded storage.

For terminals that do not use extended color mode, an asterisk (*) indicates criteria that prevents MVS from sending pages to expanded storage.

When extended attributes are in effect on terminals that use extended color mode, reverse video indicates criteria that is currently not being met (that prevents MVS from sending pages to expanded storage). For more information, see the algorithms in the MVS/XA System Programming Library: Initialization and Tuning Guide.

OMEGAMON uses the same color for the reverse video as the level 7 color exception analysis uses. See .SCC to modify color levels.

If you execute ESMG on a system without expanded storage, n/a (for not applicable) appears. The following is a sample display for the SYS ESMG command for pre-MVS/SP 4.2:

```
SYS >> IPS=83,OPT=83,ICS=83, SYSRES=(MVSRES,123) <<
ESMG Migration Age = 3097 Sec. Migration Rate = 2.2 Pages/Sec
+ Selection Criteria
+    Swp-Un    Swp-Ch    Swp-Wkst    Stole-Un    Stole-Ch    Pgout-Un    Pgout-Ch
+ BATCH 3000 3000 3000 20 20 3000 3000
+ TSO 60 60 50 15 15 100 100
+ VIRTUAL FETCH = 15    VIO = 900    HIPERSPACE (BDS) = 900
```

The screen information includes:

- **NSW/CMN**: Non-swappable address spaces, and common area pages (including privileged users).
- **TSO**: TSO address spaces.
- **BATCH**: All other address spaces.
- **VIRTUAL FETCH**: The criteria age (in seconds) for determining when virtual fetch pages are sent to expanded storage.
- **VIO**: The criteria age (in seconds) for determining when VIO pages are sent to expanded storage.
- **HIPERSPACE**: The criteria age (in seconds) for determining when BDS storage is returned to processor’s reserve capacity.

**Note**: Hiperspace appears only for ESA.

- **Swp-Un**: The criteria age (in seconds) for determining when an unchanged page that has been trimmed for a swap out is sent to expanded storage. This applies to pre-MVS/SP 4.2 only.
- **Swp-Ch**: The criteria age (in seconds) for determining when a changed page that has been trimmed for a swap out is sent to expanded storage.
- **Swp-Wkst**: The criteria age (in seconds) at which a working set page that is ready for swap out is sent to expanded storage.
The criteria age (in seconds) at which a page that has been trimmed for a swap out is sent to expanded storage.

Stole-Un
The criteria age (in seconds) for determining when an unchanged page to be stolen is sent to expanded storage. This applies to pre-MVS/SP 4.2 only.

Stole-Ch
The criteria age (in seconds) for determining when a changed page to be stolen is sent to expanded storage.

Pgout-Un
The criteria age (in seconds) for determining when an unchanged page to be paged out is sent to expanded storage. This applies to pre-MVS/SP 4.2 only.

Pgout-Ch
The criteria age (in seconds) for determining when a changed page to be paged out is sent to expanded storage.

MVS/SP 4.2 no longer distinguishes between changed and unchanged page criteria in the area of expanded storage selection criteria. The three columns for unchanged page criteria (Swp-Un, Stole-Un, and Pgout-Un) have been deleted from this display. Any entries (3-99) in the Criteria Age Table appear as additional rows in this display. The following is a sample display for the SYS ESMG command for MVS/SP 4.2:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Swp-Trim</td>
<td>Swp-Wkst</td>
<td>Stolen</td>
<td>Page-Out</td>
</tr>
<tr>
<td>0</td>
<td>1200*</td>
<td>1200*</td>
<td>100</td>
<td>1200*</td>
</tr>
<tr>
<td>1</td>
<td>1200*</td>
<td>1200*</td>
<td>250</td>
<td>1200*</td>
</tr>
<tr>
<td>2</td>
<td>800*</td>
<td>800*</td>
<td>250</td>
<td>1200*</td>
</tr>
<tr>
<td>3</td>
<td>1000*</td>
<td>1000*</td>
<td>300</td>
<td>1500*</td>
</tr>
</tbody>
</table>

Related Information: Minor of: SYS See also .SCC.

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

ESMV

Type: OMEGAMON Minor command

Description: Displays rate or difference in the total number of pages migrated to auxiliary storage (XA and ESA).

ESMV [.D | .R]

where .D represents the difference and .R represents the rate in pages per second.

If you execute ESMV on a system without expanded storage, n/a (for not applicable) appears.

Related Information: Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP
ESOF

**Type:** OMEGAMON Minor command

**Description:** Displays number of expanded storage frames and bytes (in K) offline (XA and ESA).

\texttt{cESOF}

where \texttt{c} represents a plot character.

If you execute ESOF on a system without expanded storage, \texttt{n/a} (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

---

ESON

**Type:** OMEGAMON Minor command

**Description:** Displays number of expanded storage frames and bytes (in K) online (XA and ESA).

\texttt{cESON}

where \texttt{c} represents a plot character.

If you execute ESON on a system without expanded storage, \texttt{n/a} (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

---

ESPI

**Type:** OMEGAMON Minor command

**Description:** Displays the rate or difference in the number of pages read from expanded storage.

\texttt{ESPI [.D|.R]}

where \texttt{.D} represents the difference or \texttt{.R} represents rate in pages per second.

If you execute ESPI on a system without expanded storage, \texttt{n/a} (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

---

ESPM

**Type:** OMEGAMON Minor command

**Description:** Displays the rate or difference in the total number of pages moved into and out of expanded storage.
ESPI [.D| .R]

where .D represents the difference or .R represents rate in pages per second.
If you execute ESPM on a system without expanded storage, n/a (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPO, ESPR, ESQA, RMAP, SQA, and VMAP

**ESPO**

**Type:** OMEGAMON Minor command

**Description:** Displays the rate or difference in the total number of pages sent to expanded storage (XA and ESA).

**ESPI [.D| .R]**

where .D represents the difference or .R represents rate in pages per second.
If you execute ESPO on a system without expanded storage, n/a (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPR, ESQA, RMAP, SQA, and VMAP

**ESPR**

**Type:** OMEGAMON Minor command

**Description:** Displays number of private area frames and bytes (in K) in expanded storage (XA and ESA).

**cESPR**

where c represents a plot character.
If you execute ESPR on a system without expanded storage, n/a (for not applicable) appears.

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESQA, RMAP, SQA, and VMAP

**ESQA**

**Type:** OMEGAMON Minor command

**Description:** Displays a job’s use of ESQA. (There are other entries with the same name. See the next entry for a description of ESQA as a minor of SYS.)

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI
ESQA

**Type:** OMEGAMON Minor command

**Description:** Displays ESQA by subpool and protect key (XA, ESA). (There are other entries with the same name. See the previous entry for a description of ESQA as a minor of address space majors.)

The following is a typical ESQA display:

```
<table>
<thead>
<tr>
<th>Subpl-Key</th>
<th>Ext</th>
<th>Alloc. Blks</th>
<th>Storage Used</th>
<th>Largest Free Blk</th>
</tr>
</thead>
<tbody>
<tr>
<td>239-0</td>
<td>6</td>
<td>84K</td>
<td>83K+720</td>
<td>3K+928</td>
</tr>
<tr>
<td>245-0</td>
<td>7</td>
<td>8M+108K</td>
<td>700K+232</td>
<td>7M+928K+440</td>
</tr>
<tr>
<td>Total:</td>
<td>13</td>
<td>8M+192K</td>
<td>783K+952</td>
<td></td>
</tr>
<tr>
<td>ESQA size:</td>
<td></td>
<td>8M+192K</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

These are the usual protect key assignments:

0 Control Program
1 Job Scheduler and JES
2,3,4 Reserved
5 Data Management: IOS, OPEN/CLOSE/EOV
6 TCAM and VTAM
7 IMS & DB2
8 All V=V programs
9 Public Storage Key
10-15 V=R programs

For more information on subpool assignments, see the appropriate IBM manual.

When an ESQA overflow condition occurs, the following line appears at the bottom of ESQA output:

*(ESQA SIZE DOES NOT INCLUDE nnnk OF ECSA CONVERTED TO ESQA)*

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, RMAP, SQA, and VMAP

ETAE

**Type:** OMEGAMON Minor command

**Description:** Displays estimated time of completion based on WPF profile elapsed time. This command requires WPF to be active. Elapsed time is an average.
ETE CLRDUMP

**Type:** Operator Console command

**Description:** Resets the flag that indicates dumps have been completed.

This allows additional dumps to be collected.

```plaintext
ETE       CLRDUMP
ETE0002:  ETE V150 #00    LOADLIB=loadlib
ETE0003:  COMPLETE
```

`loadlib` specifies the load library from which End-to-End™ modules were loaded.

**Note:** When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

```plaintext
ETE[.nnn] cccccc
```

`nnn` ETE version number (optional).

`cccccc` ETE command name.

**Related Information:** None

---

ETE DUMP

**Type:** Operator Console command

**Description:** Creates an SVC dump tailored for ETE problem analysis and troubleshooting.

```plaintext
ETE DUMP
ETE0002:  ETE V150 #00    LOADLIB=loadlib
ETE0010:  CANDLE SCHEDULED CSA DUMP IN PROGRESS
ETE0011:  CANDLE SCHEDULED CSA DUMP COMPLETE
ETE0003:  COMPLETE
```

`loadlib` specifies the load library from which ETE modules were loaded.

**Note:** When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

```plaintext
ETE[nnn] cccccc
```

`nnn` ETE version number (optional).

`cccccc` ETE command name.

**Related Information:** None
ETE HELP

Type: Operator Console command

Description: Displays available ETE subsystem commands.

\[\text{ETE HELP} \]
\[\text{ETE0002: ETE V150 #00 LOADLIB=loadlib} \]
\[\text{ETE0070: THE FOLLOWING ETE COMMANDS ARE AVAILABLE:} \]
\[\text{ETE0071: CLRDUMP -- RESET DUMP Flag/ALLOW NEW DUMP} \]
\[\text{ETE0071: DUMP -- PRODUCE A DIAGNOSTIC ETE SVC DUMP} \]
\[\text{ETE0071: HELP -- PRODUCE THIS DISPLAY} \]
\[\text{ETE0071: QUIESCE -- TERMINE THE ETE SUBSYSTEM} \]
\[\text{ETE0071: RESET -- RESET ETE SUBSYSTEM AND QUIESCE} \]
\[\text{ETE0071: SYSTEMS -- DISPLAY ETE SUBSYSTEM INSTALLED} \]
\[\text{ETE0071: TRACEON -- START ETE DIAGNOSTIC TRACE} \]
\[\text{ETE0071: TRACEOFF -- STOP ETE DIAGNOSTIC TRACE} \]
\[\text{ETE0071: USER= -- DISPLAY LUNAMES MONITORED BY A SPECIFIC PRODUCT 00230000} \]
\[\text{ETE0071: USERS -- DISPLAY PRODUCTS USING THE ETE SUBSYSTEM} \]
\[\text{ETE0071: VERBOSE -- PRODUCE A DIAGNOSTIC WTO FOR SELECTED EVENTS} \]
\[\text{ETE0071: NOVERBOSE -- CANCEL EFFECTS OF VERBOSE COMMAND} \]
\[\text{ETE0003: COMPLETE} \]

\textit{loadlib} specifies the load library from which ETE modules were loaded.

Note: When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

\[\text{ETE[nnn] cccccccc} \]
\[\text{nnn} \quad \text{ETE version number (optional).} \]
\[\text{ccccccc} \quad \text{ETE command name.} \]

Related Information: None

ETE NOVERBOSE

Type: Operator Console command

Description: Cancels the effect of the ETE VERBOSE command. VERBOSE MODE OFF is the default status.

\[\text{ETE NOVERBOSE} \]
\[\text{ETE0002: ETE V150 #00 LOADLIB=loadlib.} \]
\[\text{ETE0016: VERBOSE MODE OFF} \]
\[\text{ETE0003: COMPLETE} \]

\textit{loadlib} specifies the load library from which ETE modules were loaded.

Note: When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:
ETE[nnn] cccccccc

nnn     ETE version number (optional).
ccccc    ETE command name.

Related Information: None

ETE QUIESCE

Type: Operator Console command

Description: Shuts down ETE. Stop ETE only when necessary. It is recommended that ETE be started immediately after VTAM startup and that ETE be kept running continuously to collect session information history.

Use this command before applying maintenance and restarting ETE. After ETE is shut down, OMEGAMON will get a return code or sense code indicating that ETE is not operational. With QUIESCE there is no impact to other network monitoring systems.

Stopping the ETE address space using the MVS STOP command will automatically generate an ETE QUIESCE command.

Note: A small amount of common storage is intentionally left behind and will be re-used when ETE is restarted. Do not free this storage with the CSA Analyzer™ as this is not orphan storage.

loadlib specifies the load library from which ETE modules were loaded.

Note: When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

ETE[nnn] cccccccc

nnn     ETE version number (optional).
ccccc    ETE command name.

Related Information: None

ETE RESET

Type: Operator Console command

Description: Resets VTAM interfaces and quiesces ETE subsystem and address space. ETE RESET will impact OMEGAMON and other network monitoring systems.
**Warning:** Use this command only at the direction of Candle Customer Support.

<table>
<thead>
<tr>
<th>ETE RESRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETE0002:  ETE V150 #00 LOADLIB=loadlib</td>
</tr>
<tr>
<td>ETE0072:  SSTB SUBSYSTEM RESET SUCCESSFUL</td>
</tr>
<tr>
<td>ETE0073:  VTAM INTERFACE RESTORED</td>
</tr>
<tr>
<td>ETE0003:  COMPLETE</td>
</tr>
</tbody>
</table>

*loadlib* specifies the load library from which ETE modules were loaded.

**Note:** When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

**ETE[nnn] cccccc**

- **nnn** ETE version number (optional).
- **ccc** ETE command name.

**Related Information:** None

---

**ETE SYSTEMS**

**Type:** Operator Console command

**Description:** Displays ETE subsystem status.

<table>
<thead>
<tr>
<th>ETE SYSTEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETE0002:  ETE V150 #00 LOADLIB=loadlib</td>
</tr>
<tr>
<td>ETE0030:  VERSION ## CMD PRF V STATUS INST TYPE</td>
</tr>
<tr>
<td>ETE0031:  V150 00 ETE15000 ACTIVE STATIC</td>
</tr>
<tr>
<td>ETE0003:  COMPLETE</td>
</tr>
</tbody>
</table>

*loadlib* specifies the load library from which ETE modules were loaded.

**Note:** When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

**ETE[nnn] cccccc**

- **nnn** ETE version number (optional).
- **cccc** ETE command name.

**Related Information:** None
ETE TRACEOFF

**Type:** Operator Console command

**Description:** Stops ETE problem determination diagnostic trace, canceling the effect of the ETE TRACEON command.

```
ETE TRACEOFF
ETE0002:  ETE V150 #00     LOADLIB=loadlib
ETE0079:  ETE DIAGNOSTIC TRACE STOPPED
ETE0003:  COMPLETE
```

*loadlib* specifies the load library from which ETE modules were loaded.

**Note:** When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

```
ETE[nnn] cccccc
```

*nnn* ETE version number (optional).

*ccccc* ETE command name.

**Related Information:** None

---

ETE TRACEON

**Type:** Operator Console command

**Description:** Starts ETE problem determination diagnostic trace.

```
ETE TRACEON
ETE0002:  ETE V150 #00     LOADLIB=loadlib
ETE0078:  ETE DIAGNOSTIC TRACE STARTED
ETE0003:  COMPLETE
```

*loadlib* specifies the load library from which ETE modules were loaded.

**Note:** When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

```
ETE[nnn] cccccc
```

*nnn* ETE version number (optional).

*ccccc* ETE command name.

**Related Information:** None
ETE USER

**Type:** Operator Console command

**Description:** Displays all LU names being monitored by the specific product using ETE. *userid* is a job name as shown in the ETE USERS command display.

```plaintext
ETE USER=TDN04B
ETE0002: ETE V150 #00 LOADLIB=loadlib
ETE0040: USER001 : ASCB=00EE9080, TCB=007C5458
ETE0044: L0021450/TSOG0021 L0027740/SMVTAMG L0027990/RGSS001N
ETE0044: L613A45 /V146GTW1 L613A74 /OIVTAMG0 L615108 /SUPGATEG
ETE0044: L615A106/V146GTW1 L63S /TSOG0028
ETE0003: COMPLETE
```

*loadlib* specifies the load library from which ETE modules were loaded.

**Note:** When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

```
ETE[nnn] cccccc
```

- **nnn** ETE version number (optional).
- **cccccccc** ETE command name.

**Related Information:** None

ETE USERS

**Type:** Operator Console command

**Description:** Shows the STCNAME or JES JOBNAME, ASID, and TCB address of each product using ETE.

```plaintext
ETE USERS
ETE0002: ETE V150 #00 LOADLIB=loadlib
ETE0040: JOBNAME ASID TCB TYPE
ETE0041: USER001 00176 007BE458 RSPTIME
ETE0041: ETE150 00175 007EDB80 CAPTURE
ETE0041: ETE150 00175 007EF1F8 CAPTURE
ETE0041: ETE150 00175 007EF1F8 CAPTURE
ETE0003: COMPLETE
```

*loadlib* specifies the load library from which ETE modules were loaded.
Note: When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

ETE[nnn] cccccc

nnn     ETE version number (optional).
ccccccc  ETE command name.

Related Information: None

ETE VERBOSE

Type: Operator Console command

Description: Produces a WTO for ADD process diagnostic purposes when particular events occur. This command controls the output of the following messages: ETE0110, ETE0111, ETE0112, and ETE0113. VERBOSE MODE OFF is the default status.

loadlib specifies the load library from which ETE modules were loaded.

Note: When running multiple versions of ETE, be sure to include the version number to direct ETE commands to the proper version of ETE, using the following syntax:

ETE[nnn] cccccc

nnn     ETE version number (optional).
ccccccc  ETE command name.

Related Information: None

ETRE

Type: OMEGAMON Minor command

Description: Displays estimated time remaining before job will complete. This command requires WPF to be active. Elapsed time is an average.

Related Information: Minor of: Address space majors. See Address Space Information Commands in “Command Groupings” on page 17.

Other Workload Profile Facility commands: dWPF, EPCE, EPRE, ETAE, jWPF, and WPF

.EXM

Type: OMEGAMON Immediate command

Description: Lists and executes all minor commands for the preceding major command.
.EXM [nn|c1 c2]

(blank) Without operands, the .EXM command lists and executes all the minors.
nn Skips nn minor commands and executes the rest.
c1 c2 Executes all the minor commands that begin with the specified character string or are in the range specified (c1-c2). A character string can be 1-4 characters long.

This command applies only to the major command that immediately precedes it. The .EXM command executes the minors in alphabetical order and shows the number of minors it has executed. You can use operands to limit the execution to specified minors.

For example, the following .EXM command executes minors of the DISK command that have names starting with A through F:

```
   DISK
   .EXM A F
```

The .EXM command comments itself out after it executes.

**Related Information:** None

.EXP

**Type:** OMEGAMON Immediate command

**Description:** Displays product expiration date. The .EXP command displays the expiration date after which OMEGAMON will not function. Product updates contain new features, support for new IBM releases, enhanced operations, and maintenance. To benefit from improvements, install the product each time it is updated.

**Related Information:** None

EXSnnn

**Type:** OMEGAMON Immediate command

**Description:** See EXSY.

**Related Information:** None

EXSY

**Type:** OMEGAMON Immediate command

**Description:** Invokes exception analysis for all exceptions. EXSY invokes all systemwide exceptions as well as address space exceptions. To invoke only the address space exceptions, issue the XAS command instead. EXSY command invokes over 50 exceptions, which includes all of the exceptions in these Candle-defined groups:

- **AS** Auxiliary Storage Manager (ASM)
- **HD** Hardware
To execute only the exceptions for a single group, use the XGRPcc command.

The output of EXSY only shows the exception message. You may want to change an exception threshold. To see which analysis generated the exception, enter L in column 1 of EXSY (that is, LEXSY). You can enter the 4-character exception name that appears on the LIST=parameter of the XACB command to change the exception threshold.

A G in column 1 of EXSY displays the Address Space Threshold (AST) group number (if any) for each address space. The ASG immediate command defines address space threshold groups. These groups allow you to vary the address space exception thresholds for different groups of address spaces.

If you enter EXSY in the form EXSYnn or EXSnnn, the first nn or nnn lines of output are suppressed. If no exceptions have tripped on the current cycle, OMEGAMON displays a message to that effect. You can customize this message with the XTXT profile command.

For an explanation of individual exceptions, see the bulleted list at the end of the XACB command.

**Related Information:** Other exception analysis commands: ASG, CHNM, CPUM, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XSUM, XTRP, and XTXT
# F Commands and Keywords

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<tr>
<td>FEFL</td>
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<tr>
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<td>------</td>
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<td>FMLP</td>
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<td>199</td>
</tr>
<tr>
<td>FNDU</td>
<td>200</td>
</tr>
<tr>
<td>FOFnnnn</td>
<td>202</td>
</tr>
<tr>
<td>FOFL</td>
<td>203</td>
</tr>
<tr>
<td>FOLD</td>
<td>203</td>
</tr>
<tr>
<td>FONnnnn</td>
<td>203</td>
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</tr>
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<tr>
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<td>FSQA</td>
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<td>FSRS</td>
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<td>FVV</td>
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<td>FXFB</td>
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<tr>
<td>FXFR</td>
<td>209</td>
</tr>
</tbody>
</table>
FAFQ

**Type:** OMEGAMON Minor command

**Description:** Displays total frames on the RSM available frame queue (XA, ESA).

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FAVL

**Type:** OMEGAMON Minor command

**Description:** Displays total available frames (XA, ESA).

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FBDF

**Type:** OMEGAMON Minor command

**Description:** Displays Bottom Double (BDF) RSM internal queue frames (XA, ESA). Real storage frames used for segment table entries.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FBLD

**Type:** OMEGAMON Minor command

**Description:** Displays BLDL list frames (XA, ESA). Use FBLDF to display BLDL list fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV
FCOM

**Type:** OMEGAMON Minor command

**Description:** Displays common area frames (XA, ESA). This includes all CSA, SQA, LPA, and nucleus frames below 16M. Use FCOMF to display common area fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FCSA

**Type:** OMEGAMON Minor command

**Description:** Displays Common Service Area (CSA) frames (XA, ESA). Use FCSAF to display CSA fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FDFF

**Type:** OMEGAMON Minor command

**Description:** Displays RSM internal deferred FREEMAIN queue frames (XA, ESA).

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FDRF

**Type:** OMEGAMON Minor command

**Description:** Displays the number of DREF frames in real storage (ESA). FDRF displays data in K. You can plot the data by specifying the plot character c of your choice before the command.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV
FDSM

**Type:** OMEGAMON Minor command

**Description:** Displays storage being used by the system for data space management (ESA). FDSM accepts a plot character in column 1. FDSM displays the number of frames followed by the storage amount in K-bytes.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFS, FDFR, FDSM, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ,FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FDSP

**Type:** OMEGAMON Minor command

**Description:** Displays real storage in use by data spaces (ESA only). FDSP accepts a plot character in column 1. This command displays the number of frames followed by the storage amount in K-bytes.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFS, FDFR, FDSM, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FECS

**Type:** OMEGAMON Minor command

**Description:** Displays extended Common Storage Area (CSA) frames (XA, ESA). FECSF displays extended CSA fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFS, FDFR, FDSM, FDSF, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV
FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FEFL

Type: OMEGAMON Minor command

Description: Displays extended Fixed Link Pack Area (FLPA) frames (XA, ESA). FEFLF displays extended FLPA fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFS, FDRF, FDSM, FDSP, FECM, FECS, FELS, FEML, FEPL, FEPL, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FELS

Type: OMEGAMON Minor command

Description: Displays extended Local System Queue Area (LSQA) frames (XA, ESA). FELSF displays extended LSQA fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFS, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FEML, FEPL, FEPL, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FEML

Type: OMEGAMON Minor command

Description: Displays extended Modified Link Pack Area (MLPA) frames (XA, ESA). FEMLF displays extended MLPA fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFS, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FEML, FEPL, FEPL, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FEPL

Type: OMEGAMON Minor command

Description: Displays extended Pageable Link Pack Area (PLPA) frames (XA, ESA). FEPLF displays extended PLPA fixed frames.

Related Information: Minor of: SYS
F Commands and Keywords

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FEPV

Type: OMEGAMON Minor command

Description: Displays extended private area frames (XA, ESA). FEPVF displays extended private area fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FERO

Type: OMEGAMON Minor command

Description: Displays extended read-only nucleus frames (XA, ESA). FEROF displays extended read-only nucleus fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FERW

Type: OMEGAMON Minor command

Description: Displays extended read/write nucleus frames (XA, ESA). FERWF displays extended read/write nucleus fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FESQ

Type: OMEGAMON Minor command

Description: Displays extended SQA frames (XA, ESA). FESQF displays extended SQA fixed frames.

Related Information: Minor of: SYS
Commands and Keywords

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FFLP

Type: OMEGAMON Minor command

Description: Displays Fixed Link Pack Area (FLPA) frames (XA, ESA). FFLPF displays FLPA fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FFLW

Type: OMEGAMON Minor command

Description: Displays RSM internal flawed frames (XA, ESA).

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

.FGO

Type: OMEGAMON Immediate command

Description: Fetches screen space cccccc. The .FGO (Fast GO) command is used when creating screen spaces to fetch the next screen space of a series. It allows screen spaces to be chained together and to execute very quickly, bypassing the screen display and the normal OMEGAMON interval. It is particularly useful in exception analysis for implementing the Automatic Screen Facility (ASF) or the Timed Screen Facility (TSF).

.FGO has a conditional screen fetch feature that fetches a screen space only if a condition is true.

.n.FGO cccccc

[CPSER  {=|EQ|GE|GT|LE|LT|NE} argument]
[DIR  {=|EQ|GE|GT|LE|LT|NE} argument]
[MODE  {=|EQ|GE|GT|LE|LT|NE} argument]
[OPSYS  {=|EQ|GE|GT|LE|LT|NE} argument]
[PREFIX {=|EQ|GE|GT|LE|LT|NE} argument]
Commands and Keywords

[SMFID  {=|EQ|GE|GT|LE|LT|NE} argument]
[UNIT   {=|EQ|GE|GT|LE|LT|NE} argument]
[USER   {=|EQ|GE|GT|LE|LT|NE} argument]
[&var   P={|EQ|GE|GT|LE|LT|NE} argument]

n  The variable n is an optional numeric label that allows you to delay the fetch of
screen space cccccccc for a number of cycles up to 35. Use the numbers 1-9 or the
letters A-Z (representing 10-35 cycles). Each time the screen updates, n decrements
by 1. When n=0, screen cccccccc is fetched on the next cycle.

ccccccc  The variable cccccccc specifies the name of a screen space.

Keywords for Conditional Setting of Variables

The following keywords are available for conditional setting of variables. Their values are
initialized by OMEGAMON.

CPSER  CPU serial number. In the case of a multi-processor, this will compare the supplied
CPU serial number with the serial numbers of all CPUs in the complex. If the
relational argument is equal (= or EQ), OMEGAMON will fetch the screen space
the first time it finds a match. If the relational argument is NE, OMEGAMON will
fetch the screen space only after it has checked all of the CPUs in the complex.

DIR   The ID assigned to the director in cross system mode.

MODE  The 3-character code for the OMEGAMON mode of operation. It is displayed on
the INFO-line during a session. The possible values are:

DED   A dedicated mode session
DIR   A director segment running dedicated in a cross memory or cross
system mode session
DSK   A collector segment running in a cross system mode session
TSO   A TSO mode session
SPF   An ISPF mode session
VTD   A director segment running under VTAM in a cross memory or cross
system mode session
VTM   A VTAM mode session
XMM   A collector segment running in a cross memory mode session

OPSYS  The MVS operating system level
PREFIX The OMEGAMON product code (for example, OM).
SMFID  The system ID from the SYS= startup parameter or the default SMF ID.
IMSID  The system ID from the SYS= startup parameter.
UNIT   The device number from the UNIT= startup parameter (the primary OMEGAMON
console).
Relational Operators
The relational operators require blanks on either side except for the equal sign (=).

- **=** or **EQ** Keyword equals argument.
- **GE** Keyword is greater than or equal to argument.
- **GT** Keyword is greater than argument.
- **LE** Keyword is less than or equal to argument.
- **LT** Keyword is less than argument.
- **NE** Keyword is not equal to argument.

**argument** The argument is a 1-to 8-character value to which OMEGAMON compares the keyword. The keyword and argument can be any variable name set with the .VAR command or any OMEGAMON-defined variable. The .VAR command lists OMEGAMON-defined variables.

To protect against the possibility of a looping condition caused by the .FGO command, OMEGAMON limits the number of consecutive fetches allowed. The limit is controlled with the FGOLIMIT keyword of .SET, which is set to 64 by default (in the Candle-supplied profile). After the limit is reached, .FGO acts like .SGO (Screen Go) so that screen spaces continue to execute, but now they display on each cycle.

Therefore, if there was a loop caused by .FGO screen spaces, you will need to correct the condition and re-enable .FGO with the FGOLOOP keyword of the .SET command.

Because FGOLOOP=ON causes .FGO to display executing screen spaces, you may want to turn it on yourself to test your screen space fetch routines.

If multiple .FGO commands appear on one screen, the last .FGO command without a condition, or for which the condition is true, executes.

**Example:**
To fetch screen space SAMPLE only if the terminal address is 05E1, enter:

```
.FGO SAMPLE UNIT=05E1
```

or

```
.FGO SAMPLE UNIT EQ 05E1
```

**Related Information:** See .SGO.

**FHSA**

- **Type:** OMEGAMON Minor command
- **Description:** Displays hardware system area (HSA) frames (XA, ESA).
Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FIDA

Type: OMEGAMON Minor command

Description: Displays RSM internal IDA frames (XA, ESA).

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRVN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FIXF

Type: OMEGAMON Minor command

Description: Displays number of fixed frames for swapped-out user. The term IN displays if the user is swapped in.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI

FLSQ

Type: OMEGAMON Minor command

Description: Displays Local System Queue Area (LSQA) frames (XA, ESA). FLSQF displays LSQA fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FLST

Type: OMEGAMON Minor command

Description: Displays the performance groups for which period one analysis has been selected. The FLST command displays both the DEXAN slot number and the performance group number, making the actions of the FON, FOF, and RSF commands visible. The FLST command displays:
Commands and Keywords

- When collection started
- How long collection has been running (ELAP)
- The number of observations (items=263)

For example:

```
DEX
FLST
```

The following fields appear on the FLST display:

**DEXAN Slot Number**

DEXAN assigns this number to a performance group when the performance group is selected for monitoring. This number may change if the list is changed with either the FON, FOF, or RSF minor command. Use the DEXAN slot number with period one display commands, which are PLTF, PCTF, and CNTF.

**Performance Group Number**

Use performance group number with the commands that control period one monitoring, which are FON, FOF, and RSF.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnnn, PCTFnnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPhnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

**FMCT**

**Type:** OMEGAMON Minor command

**Description:** Displays total frame count of a swapped in address space. Each frame is 4096 bytes. The working set size is calculated as \( 4 \times FMCT \) or, if expanded storage is in use, \( 4 \times (FMCT + ESFC) \). (ESFC displays the expanded storage page count.) You can view this with the WKST minor command.
When an address space is physically swapped out, an S is displayed followed by the last frame count. When the allocated frame count is 0, address spaces may be resident and still show an S for FMCT or WKST.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI

### FMLP

**Type:** OMEGAMON Minor command

**Description:** Displays Modified Link Pack Area (MLPA) frames (XA, ESA). FMLPF displays MLPA fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

### FMOD

**Type:** OMEGAMON Immediate command

**Description:** Finds entry point of module in link pack area. FMOD locates and determines the status of modules in the Link Pack Area (LPA). You supply the module name. The output for FMOD is as follows:

```
FMOD module-name *ACT* aaaa Entry=xxxxxx Load=xxxxxx Use Cnt= ddd
+ cccc Address=xxxxxx Major Module=mmmmmmmm
```

The following fields appear on the FMOD display:

**ACT**

Appears if the module-name was found on the Active Link Pack Area Queue (ALPAQ). This means that a CDE was found for the module.

aaa

Location of the module:

- **LPAM**
  - If the module was added to the Link Pack Area using the OMEGAMON LPAMM command.
  - **Note:** The LPAMM and LPAMD commands are not supported at MVS level OS/390 release 2.4 and above.

- **FLPA**
  - If the module is located in the Fixed Link Pack Area.

- **MLPA**
  - If the module is located in the Modified Link Pack Area.

- **PLPA**
  - If the module is located in the Pageable Link Pack Area.

- **EFLPA**
  - If the module is located in the Extended Fixed Link Pack Area.
Commands and Keywords

**EMLPA**  If the module is located in the Extended Modified Link Pack Area.

**EPLPA**  If the module is located in the Extended Pageable Link Pack Area.

**Note:** With XA, the extended areas (that is, the areas above the 16M line) are prefixed by an E. For example, the Extended PLPA would be indicated by EPLPA.

**Entry**=  The entry address (xxxxxx represents the hex address) for this module.

**Load**=  The starting address of the load module in which this module name resides. Most of the time the Entry address will be the same as the Load address. It can be different if the first instruction to be executed in this load module is not at offset 0.

**Note:** The load address is not given for a minor CDE/LPDE. To find this information, enter FMOD for the major module.

**Use Cnt**=  The number of requests currently active for the specified module. The use count is always 0 for minor CDEs and for LPDEs; therefore, it is not shown for these entries. For modules in either the MLPA or the FLPA, the use count is initialized to 1 at IPL. For modules in the PLPA, the use count does not appear unless the module is actually being requested. In such a case, the first request sets the use count to 1. Module aliases have no use count.

**Note:** The use count goes up as requests are made for the module and goes down when requests for the module become inactive.

**cccc Address**=  cccc is either CDE or LPDE. The address represents the location of the control block used to obtain the data shown.

**Major Module**=  The name of the module for which the requested module is a minor (an alias).

Example:

<table>
<thead>
<tr>
<th>FMOD</th>
<th>IKJEF01</th>
<th><em>Act</em></th>
<th>PLPA</th>
<th>Entry=BAF000</th>
<th>Load=BAF000</th>
<th>Use Cnt= 37</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>CDE Address=FDFA30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FMOD</th>
<th>IKJEF02</th>
<th>PLPA</th>
<th>Entry=BA9000</th>
<th>Load=BA9000</th>
<th>Use Cnt= 76</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>CDE Address=FAA4F0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this example, module IKJEF01 is currently active, begins at location BAF000, and has a use count of 37. CDE address is FDFA30. Module IKJEF02 is loaded at address BA9000, but is not in use at the moment. CDE address is FAA4F0.

**Related Information:**  None

**FNDU**

**Type:** OMEGAMON Major command (Authorized)

**Description:**  Finds all users of a device.

**aFNDU device**
If the unit indicated is online, FNDU accesses every active address space, and continues until it finds as many allocations as the UCBUSER field indicates. This can cause OMEGAMON to pause until all address spaces are examined.

For example, if you issue the command

-FNDU MVS001
-FNDU 0245

you might see the following result:

```
FNDU  MVS001  0245   2 User(s) Holding 3 Allocation(s)
```

This typical FNDU display means that two users are active, and have three datasets allocated on MVS001 between them. To display the specific users, you must use the DSPA minor command of FNDU. If you reissue this command without the action character, it does not display current information. If, for example, you are attempting to determine allocations on paging volumes based on the PAOD exception, be sure to re-enter the action character.

When you try to vary a device offline, the VARY remains pending until all users of the device free their allocations. In the case of a DASD device, it is often difficult to determine which users have the datasets allocated. The MVS OS command, D U, and the OMEGAMON DALC minor command of DISK, show how many allocations are still held but not who holds them. The MVS command D&$RB.U,,ALLOC, displays the users of a volume but not the ddname or number of current allocations. The authorized command, FNDU, displays more detailed information than DALC or D U,,ALLOC.

Sometimes no allocations of a device are found, but the device use count shows a number greater than zero. This condition occurs in the following cases:

**Important**

FNDU accesses every active address space to look for allocated datasets on the target pack. Because this may involve swapping many users into memory for a short time, FNDU may have significant system overhead. Use it carefully.
At IPL time, the nucleus initialization program (NIP) allocates and opens several system datasets before the standard OPEN and ALLOCATE interface is available. To ensure that the volume is not forced offline, NIP raises the device use count by one for each dataset it needs on a volume. Because there are no DD statements for these devices, FNDU does not find them under the master scheduler, and it appears that there is a discrepancy between DALC and FNDU. This affects the SYS1.LOGREC dataset, the page and swap datasets, and all of the link list library datasets. Because you don’t want to vary these devices offline anyway, this does not present a problem.

The other case is more serious. If you use the OS FORCE command or the OMEGAMON KILL command to cancel a user, the Recovery Termination Manager (RTM) does not perform any device allocation cleanup. Devices that the FORCEd user allocated do not have their use counts decremented, and so the volumes the job used show allocations that do not exist (and that FNDU cannot find). You cannot vary volumes in this condition offline, unless you use MZAP to zap the UCB USE count (UCBUSER) in memory.

The first time you use FNDU in an OMEGAMON session, it gets a work area to hold the collected data from the target address space. If you use FNDU in dedicated mode, you might have to increase the size of the OMEGAMON V=R region. If the allocation data from all of the active address spaces does not fit within the work area, FNDU issues a warning. Use the WSIZ minor of FNDU to increase the work area size and then reissue the FNDU command.

Related Information: Major of: DSPA, DSPC, DSPO, and WSIZ nn

**FOFnnnn**

**Type:** OMEGAMON Minor command

**Description:** Removes performance group nnnn from period one analysis. The FOF command removes a performance group from period one analysis. The nnnn operand stands for the performance group number, not for the DEXAN slot number.

If the data collector is not running, the FOFnnnn command excludes performance group nnn from automatically being selected for period one analysis when the collector is started.

When you remove a performance group from period one monitoring while the data collector is running, the performance group is not removed until the next clear interval or RMF interval. This lets DEXAN follow any changes made in the Installation Performance Specifications (IPS) from an operator SET command.

To immediately remove a performance group from monitoring when the data collector is running, follow these steps:

1. Use FOF to remove the performance group.
2. Use the CLR command to clear the data collectors. The selected performance group is no longer being monitored.
**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

**FOFL**

**Type:** OMEGAMON Minor command

**Description:** Displays offline frames (XA, ESA). FOFLF displays offline fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

**FOLD**

**Type:** OMEGAMON Minor command

**Description:** Changes lowercase characters to uppercase. FOLD is active under ddname or SYSOUT.

**FOLD ccc**

- **YES**
  Lowercase characters are changed to uppercase before printing (default).
- **NO**
  Lowercase characters are not changed to uppercase before printing.

If the value you type is not valid, OMEGAMON redisplays it where you typed it and does not transfer it to the pending column.

**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDNM, DEST, DSTU, FORM, HOLD, ID1, ID2, ID3, ID4, LNCT, and SOUT

**FONnnnn**

**Type:** OMEGAMON Minor command

**Description:** Selects performance group nnnn for period one analysis. The FON command selects a performance group for period one monitoring. The operand nnnn is the performance group number. You must use the performance group number with FON. For example:

```
DEX >> DX0000 V75 running. Cycles=214 STIM=2.2 Elap=7:53 MN <<
BEGIN >> DX1000 The data collector started. Workarea size= 40112 Bytes <<
FON21
```
You may use the FON command whether or not data collection has been started with the BEGN command.

If you use FON before data collection starts, the performance group you select is automatically included in period one monitoring when you turn on the collector.

If you use FON while the data collector is running, the performance group is included at the next clear interval or RMF interval. This lets DEXAN follow any changes made in the Installation Performance Specifications (IPS) from an operator SET command.

In this case, the new performance group is the first performance group listed when using the FLST command. The last performance group is removed from the list. This is important because the DEXAN slot number changes for each performance group as they move down the list to make room for the newly added performance group. This action is readily apparent if you monitor your actions with the FLST command. To immediately add a performance group to period one monitoring, perform the following steps.

3. Use the FON command to add a performance group.
4. Use the CLR command to clear the data collector.
5. The selected performance group is now being monitored. Use the PLTFnn command to display data for the newly added performance group.
6. Use the FLST command to find the DEXAN slot number for the performance group.

Remember that you cannot monitor more performance groups for period one monitoring than the value of NUMF. See the RSF command for an alternative to the FON command.

**Note:** DEXAN cannot monitor period one of a performance group unless that performance group is being monitored. If DEXAN is not monitoring the performance group, you must use the PON command to select the performance group for monitoring prior to selecting it for period one analysis.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnnn, CNTnnnn, CNTAnn,CNTFn n, CNTJnn, CNTS, END, FLST, FOFnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTA nn, PCTFn n, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnnn, PLTJnn, PLTS, PO Fnnnn, PONnnnn, RESM, RSFn nnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

---

**FORM**

**Type:** OMEGAMON Minor command

**Description:** Specifies the name of the form on which to print. The FORM minor is under SYSOUT control.

**FORM cccc**
The default value is *NONE*. This means that OMEGAMON uses the form defined as the
default for the printer at that destination. If the value you type is not valid, OMEGAMON
redisplays it where you typed it and does not transfer it to the pending column. If you change
*NONE* to a value (such as HOLE), and you then want to return to *NONE*, type an
asterisk(*).

**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDNM, DEST, DSTU, FOLD, HOLD, ID1, ID2,
ID3, ID4, LNCT, and SOUT

---

**FPLP**

**Type:** OMEGAMON Minor command

**Description:** Displays Pageable Link Pack Area (PLPA) frames (XA, ESA). FPLPF displays
PLPA fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM,
FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW,
FHSQ, FIDA, FLSQ, FMLP, FOFL, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF,
FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

---

**FPVT**

**Type:** OMEGAMON Minor command

**Description:** Displays private area frames (XA, ESA). These are non-system frames below
16M. FPVTF displays private area fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM,
FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW,
FHSQ, FIDA, FLSQ, FMLP, FOFL, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF,
FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

---

**FRON**

**Type:** OMEGAMON Minor command

**Description:** Displays read-only nucleus frames (XA, ESA). FRONF displays read-only fixed
frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDFF, FDRF, FDSM,
FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW,
FHSQ, FIDA, FLSQ, FMLP, FOFL, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF,
FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV
Commands and Keywords

FRWN

Type: OMEGAMON Minor command

Description: Displays read/write nucleus frames (XA, ESA). FRWNF displays read/write nucleus fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FPL, FPLP, FPVT, FRON, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FSBF

Type: OMEGAMON Minor command

Description: Displays RSM internal SDUMP buffer frames (XA, ESA).

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FPL, FPLP, FPVT, FRON, FRWN, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FSQA

Type: OMEGAMON Minor command

Description: Displays SQA frames (XA, ESA). FSQAF displays SQA fixed frames.

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FPL, FPLP, FPVT, FRON, FRWN, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FSRS

Type: OMEGAMON Minor command

Description: Displays RSM internal SQA reserve queue frames (XA, ESA).

Related Information: Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FPL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV
FSYS

Type: OMEGAMON Minor command

Description: Displays system area frames (XA, ESA). FSYSF displays system area fixed frames.

Related Information: Minor of: SYS
Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FAMIL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FTDF

Type: OMEGAMON Minor command

Description: Displays RSM internal top double (TDF) queue frames (XA, ESA). These are real storage frames used for segment table entries.

Related Information: Minor of: SYS
Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FAMIL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FTOT

Type: OMEGAMON Minor command

Description: Displays total frames (XA, ESA). FTOTF displays total fixed frames.

Related Description: Minor of: SYS
Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FAMIL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV

FUNI

Type: OMEGAMON Minor command

Description: Displays RSM internal uninitialized frames (XA, ESA).

Related Information: Minor of: SYS
Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FAMIL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, FVRW, and FVV
FUNQ

**Type:** OMEGAMON Minor command

**Description:** Displays RSM internal unqueued frames (XA, ESA).

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FVIO, FVR, FVRW, and FVV

FVIO

**Type:** OMEGAMON Minor command

**Description:** Displays RSM internal VIO frames (XA, ESA).

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FVQ, FVR, FVRW, and FVV

FVR

**Type:** OMEGAMON Minor command

**Description:** Displays Virtual=Real (V=R) frames (XA, ESA). FVRF displays Virtual=Real (V=R) fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FVQ, FVR, FVRW, and FVV

FVRW

**Type:** OMEGAMON Minor command

**Description:** Displays RSM internal frames waiting for V=R memory (XA, ESA).

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDRF, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FVQ, FVR, FVRW, and FVV
**FVV**

**Type:** OMEGAMON Minor command

**Description:** Displays Virtual=Virtual (V=V) frames (XA, ESA). FVVF displays Virtual=Virtual (V=V) fixed frames.

**Related Information:** Minor of: SYS

Other frame minors: DFRS, FAFQ, FAVL, FBDF, FBLD, FCOM, FCSA, FDF, FDFR, FDSM, FDSP, FECM, FECS, FEFL, FELS, FEML, FEPL, FEPV, FERO, FERW, FESQ, FFLP, FFLW, FHSA, FIDA, FLSQ, FMLP, FOFL, FPLP, FPVT, FRON, FRWN, FSBF, FSQA, FSRS, FSYS, FTDF, FTOT, FUNI, FUNQ, FVIO, FVR, and FVRW

---

**FXFB**

**Type:** OMEGAMON Minor command

**Description:** Displays number of fixed frames in storage below the 16M line. These are the number of real storage frames an address space is using below the 16M line that are fixed and cannot be moved to disk (as slots) to make room for other address spaces. If the address space is swapped out, FXFB displays zero.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFR, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI

---

**FXFR**

**Type:** OMEGAMON Minor command

**Description:** Displays number of fixed frames in storage. (There are other entries with the same name. See the alphabetical list of exceptions at the end of the XACB command for the description of the FXFR exception.) These are the number of real storage frames an address space is using that are fixed and cannot be moved to disk (as slots) to make room for other address spaces.

The term IN displays if the address space is swapped out.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, NVSC, SQA, TWSF, TWSS, VSC, WKST, and WSSI
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</table>
Commands and Keywords

/G
Type: OMEGAMON INFO-line command
Description: See /GIVE.
Related Information: None

GDA
Type: OMEGAMON Minor command
Description: Dumps Global Data Area. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.
Related Information: Minor of: DUMP
Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

GDEV
Type: OMEGAMON Major command
Description: Lists devices with name cccccc.
Related Information: None

GDEV
Type: OMEGAMON Major command
Description: Lists devices (tape or disk) with name cccccc.

nGDEV cccccc
This major command lists disk and tape devices with the generic name cccccc. The value of n can be one of the following: the less-than symbol (<) to display all devices, or the numbers 1 to 9 and the letters A to Z (representing 10 to 35) to display individual rows of the list of devices.

For example, SYSDA is a generic device name in the system. To list all devices with the generic name SYSDA, enter the following:

<GDEV SYSDA

TAPEA is also a generic device name in the system. To list all devices with the generic name TAPEA, enter the following:

<GDEV TAPEA

You can specify the number of entries in the device name table with the GDEVUCBS keyword of the .SET command. The maximum is 4000.
Note: Use the GLST major command to list the generic names in the system.

Related Information: Major of: See Disk Information Commands and Tape Information Commands in “Command Groupings” on page 17.

**GDFN**

**Type:** OMEGAMON Immediate command

**Description:** Defines or lists exception groups for exception analysis. With this command, exceptions can be organized by groups such as hardware, software, system services, critical applications, tape and disk drives, and online applications. Then, when you invoke exception analysis by group with the XGRP command, critical and related exceptions appear together on the display.

```
GDFN
[GROUP=cc] [LIST=cccc,aaaa NAME='ccc...ccc'] [POSITION=nn] [DELETE=EXCEPTION LIST=cccc,aaaa] [DELETE=GROUP]
```

(Blank) Lists user-defined and Candle-defined exception groups along with the exceptions included in each group.

**GROUP=cc** Specifies the 2-character exception group ID. A group ID can be any two unique alphanumeric characters. To list the entries for an existing group, enter this keyword and the group ID.

**LIST=cccc,aaaa,...** Lists and adds exceptions to the exception group specified with the GROUP= keyword. An exception may be associated with only one group at a time.

**NAME='ccc...ccc'** Specifies a 25-character user-defined description of the exception group. Enclose in single quotes if there are blanks, special characters, or single quotes in the name.

**POSITION=nn** Specifies the order in which GDFN displays defined groups. The variable nn is a position number for the specified group relative to the other groups.

**DELETE=EXCEPTION** Deletes exceptions specified with LIST= from the group specified by the GROUP= keyword. Note that the syntax does not allow you to use the DELETE keyword followed by a list of exceptions. You must enter the LIST keyword.

**DELETE=GROUP** Deletes the entire exception group specified by the GROUP= keyword.

For example, to define the group SP and its related exceptions, enter:

```
GDFN GROUP=SP POSITION=1 NAME='SYSTEMS PROGRAMMER' GDFN GROUP=SP LIST=ABND,ELAP,MAXU,PSCU,SLOG,TSOR,WAIT,XCON GDFN GROUP=SP LIST=XCSA,XDDR,XECS,XGRS,VISC,XRMF
```

To delete specific exceptions from group TX, enter:

```
GDFN GROUP=TX DELETE=EXCEPTION LIST=WSHI,WSLO
```
To delete the group TX and all its related exceptions, enter:

```
GDFN GROUP=TX DELETE=GROUP
```

**Important**
In the examples of the GDFN DELETE keyword above, note that you must specify what type of delete function you want GDFN to perform: delete only individual exceptions that you list (DELETE=EXCEPTION and LIST=exception,...), or the entire group (DELETE=GROUP).

**Related Information:** Other exception analysis commands: ASG, CHNM, CPUM, EXSY, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XSUM, XTRP, and XTXT

/GIVE or /G

**Type:** OMEGAMON INFO-line command

**Description:** Gives the specified number of screen rows to the cross memory (XMF) or cross system (XSF) collector. This command determines the number of lines on the physical screen to be used by a cross memory or cross system collector. To give lines from one segment to another, simply position the cursor on the INFO-line for the giver, which can be a director or collector argument, and issue this command:

```
/GIVE nn cccc
```

- **nn** The number of screen rows. If you omit nn, all lines (except for the INFO-line) are given to segment cccc.
- **cccc** The 4-character system ID of the segment to receive the lines.

If you issue this command from a collector without specifying cccc, /GIVE returns nn lines to the director’s screen segment. If you omit nn, all segment lines (except for the INFO-line) are given to the target segment.

For example, this next command assigns 15 lines to the screen segment for the collector running on CPU ID A083.

```
/GIVE 15 A083
```

**Related Information:** None

GLST

**Type:** OMEGAMON Immediate command

**Description:** Lists esoteric and generic device names by device class.

```
GLST [cccc cccc ... cccc]
```

The GLST display can be limited to specific device classes with the following operands:

- **ALL** Displays all device names. This is the default.
- **CHAR** Displays character reader devices.
- **COMM** Displays communication devices.
These operands can be used in combination. For example:

**GLST TAPE COMM**

displays all tape devices and communications devices, as shown:

```
GLST
+ TAPE DEVICES:
  + 3480X 3400-6 TAPE CART T3480 3480 3400-9 3400-5
  + 3400-3
  +
+ COMMUNICATIONS DEVICES:
+ 3705
```

Use of the optional operands is limited to MVS 4.1 and above.

See also the GDEV command.

**Related Information:** Other Device Listing commands: DLST and TLST

**GRS**

**Type:** OMEGAMON Immediate command

**Description:** Displays global resource serialization information. Global Resource Serialization (GRS) manages the sharing of datasets and other resources between separate systems by connecting the systems into a communications ring using channel-to-channel adapters. If any link in this ring fails, the entire ring deactivates until the system or the operator restarts it.

The XGRS exception reports when the GRS ring deactivates.

```
GRS  SYSNAME=xxxxxxxx  GRS Version=vvvv  Status=ssss
+    Exclusion RNL=000000  Inclusion RNL=000000  Conversion RNL=000000
```

**Related Information:** None

**GSCL**

**Type:** OMEGAMON Immediate command

**Description:** Changes the plot scale defaults.
GSCL SPNUM=n1, SPRATE=n2, SPDIFF=n3

- **SPNUM=n1**: Sets paging number per point on scale to n1. n1 can be a number from 1-42949672.
- **SPRATE=n2**: Sets paging rate per point on scale to n2. n2 can be a number from 1-42949672.
- **SPDIFF=n3**: Sets paging difference per point on the scale to n3. n3 can be a number from 1-42949672.

GSCL changes only the scale you specify. When you enter GSCL without any arguments, the current values are displayed.

SPNUM, SPRATE, and SPDIFF affect graphs of the following minors of SYS: SPAL, SPC, SPCI, SPR, SPS, SPSV, and SPWS.

**Related Information**: None

---

**GVT**

**Type**: OMEGAMON Minor command

**Description**: Dumps GRS Vector Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information**: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CBxxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

---

**/H**

**Type**: OMEGAMON INFO-line command

**Description**: See /HELP.

**Related Information**: None

---

**/HELP or /H**

**Type**: OMEGAMON INFO-line command

**Description**: Describes HELP facilities. The help screen space tells you how to find out more about the functions, features, and operation of OMEGAMON. For help with an individual major, minor, or immediate command, type a question mark (?) in column 1 in front of the command.

For help with an INFO-line command, refer to the .ILC immediate command.

**Related Information**: See also .ILC.
/HOLD

Type: OMEGAMON INFO-line command

Description: Controls the execution of OMEGAMON commands. (There are other entries with the same name. See the next entry for a description of HOLD as a minor of OUTP.)

/HOLD ccc

ON     Suspends OMEGAMON command execution.
OFF    Returns to normal OMEGAMON command execution.

/HOLD ON allows you to stop automatic updating until you enter /HOLD OFF.

The /HOLD command is designed for users of VM/PASSTHRU. If you are not a user of VM/PASSTHRU, you can also stop automatic updating by placing the cursor in column 1, row 1.

Related Information: None

HOLD

Type: OMEGAMON Minor command

Description: Specifies that output be placed in the hold queue. (There are other entries with the same name. See the previous entry for a description of HOLD as an INFO-line command.) The HOLD minor is under SYSOUT control.

HOLD ccc

YES     Places the print file on the hold queue, and allows it to be retrieved from TSO.
NO      Does not place the print file on the hold queue (default).

If the value you type is not valid, OMEGAMON redisplays it where you typed it and does not transfer it to the pending column.

Related Information: Minor of: OUTP

Other print output options minors: COPY, DDNM, DEST, DSTU, FOLD, FORM, ID1, ID2, ID3, ID4, LNCT, and SOUT

HSEI

Type: OMEGAMON Minor command

Description: Displays the rate or difference in the number of Hiperspace pages read from expanded storage (ESA only).

HSEI [.D | .R]

where .D represents the difference and .R represents the rate in pages per second. If you execute HSEI on a system without expanded storage, n/a (for not applicable) appears.

Related Information: Minor of: SYS

Other hiperspace commands: HSEM, HSEO, HSMG, HSPI, HSPM, and HSPO
Commands and Keywords

HSEM

Type: OMEGAMON Minor command

Description: Displays the rate or difference in the total number of Hiperspace pages moved between central and expanded storage (ESA only).

HSEM. [.D|.R]

where .D represents the difference or .R represents the rate in pages per second.

HSEM.D = HSEI.D + HSEO.D
HSEM.R = HSEI.R + HSEO.R

If you execute HSEM on a system without expanded storage, n/a (for not applicable) appears.

Related Information: Minor of: SYS
Other hiperspace commands: HSEI, HSEO, HSMG, HSPI, HSPM, and HSPO

HSEO

Type: OMEGAMON Minor command

Description: Displays the rate or difference in the number of Hiperspace pages written to expanded storage (ESA only).

HSEO [.D|.R]

where .D represents the difference or .R represents the rate in pages per second.

If you execute HSEO on a system without expanded storage, n/a (for not applicable) appears.

Related Information: Minor of: SYS
Other hiperspace commands: HSEI, HSEM, HSMG, HSPI, HSPM, and HSPO

HSMG

Type: OMEGAMON Minor command

Description: Displays the rate or difference in the number of Hiperspace pages migrated from expanded to auxiliary storage (ESA only).

HSMG [.D|.R]

where .D represents the difference or .R represents the rate in pages per second.

If you execute HSMG on a system without expanded storage, n/a (for not applicable) appears.

Related Information: Minor of: SYS
Other hiperspace commands: HSEI, HSEM, HSEO, HSPI, HSPM, and HSPO
HSPI

**Type:** OMEGAMON Minor command

**Description:** Displays the rate or difference in the number of Hiperspace pages paged-in from auxiliary storage (ESA only).

**HSPI [.D| .R]**

where .D represents the difference or .R represents the rate in pages per second.

If you execute HSPI on a system without expanded storage, **n/a** (for not applicable) appears.

**Related Information:** Minor of: SYS

Other hiperspace commands: HSEI, HSEM, HSEO, HSMG, HSPM, and HSPO

HSPM

**Type:** OMEGAMON Minor command

**Description:** Displays the rate or difference in the total number of Hiperspace pages paged-in from and paged-out to auxiliary storage (ESA only).

**HSPM [.D| .R]**

where .D represents the difference or .R represents the rate in pages per second.

HSPM.D = HSPI.D + HSPO.D

HSPM.R = HSPI.R + HSPO.R

If you execute HSPM on a system without expanded storage, **n/a** (for not applicable) appears.

**Related Information:** Minor of: SYS

Other hiperspace minors: HSEI, HSEM, HSEO, HSMG, HSPI, and HSPO

HSPO

**Type:** OMEGAMON Minor command

**Description:** Displays the rate or difference in the number of Hiperspace pages paged-out to auxiliary storage (ESA only).

**HSPO [.D| .R]**

where .D represents the difference or .R represents the rate in pages per second. If you execute HSPO on a system without expanded storage, **n/a** (for not applicable) appears.

**Related Information:** Minor of: SYS

Other hiperspace commands: HSEI, HSEM, HSEO, HSMG, HSPI, and HSPM
HUIC

**Type:** OMEGAMON Minor command

**Description:** Displays highest unreferenced interval count for this address space. The System Resource Manager (SRM) uses this value to control page stealing.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: JPCI, JPGR, JPGS, JPUI, JPUO, JRCM, JRCP, JRO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR
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.I

Type: OMEGAMON Immediate command

Description: Inserts nn blank lines.

.I nn

This command inserts nn blank lines so that you can insert new commands on the screen. The number of logical rows on your terminal is the maximum.

For example, the next command inserts 5 lines before the current line.

.I 5

The default is 1.

Related Information: None

IACL[nn]

Type: OMEGAMON Immediate command

Description: Sets the interval at which the long-term buckets for Impact Analysis are reset (in number of short-term intervals). If entered without an operand (the valid range is 0-99), the current value of the interval is displayed. The default is 5 short term intervals. Each execution of the command (with or without an operand) automatically resets the long term buckets. This command can be used while the collector is running.

Related Information: Other Impact Analysis commands: IACS[nn], IANC[nn], IANL, IANQ[nn], IAST[nn], IATH[nn], IATO, and IPRO

IACS[nn]

Type: OMEGAMON Immediate command

Description: Sets the interval at which the short-term buckets for Impact Analysis are cleared (in minutes).

If entered without an operand (the valid range is 0-99), the current value of the interval is displayed. The default is 1 minute. Each execution of the command (with or without an operand) automatically clears the short-term buckets. This command can be used while the collector is running.

Related Information: Other Impact Analysis commands: IACL[nn], IANC[nn], IANL, IANQ[nn], IAST[nn], IATH[nn], IATO, and IPRO

IANC[nn]

Type: OMEGAMON Immediate command

Description: Sets the maximum number of workloads that can be monitored with Impact Analysis. If no operand is entered (the valid range is 1-5), the current value is displayed. The
default is 5. Although the collector must be stopped to change this parameter, the current value can be displayed while collection is ongoing.

**Related Information:** Other Impact Analysis commands: IACL[nn], IACS[nn], IANL, IANQ[nn], IAST[nn], IATH[nn], IATO, and IPRO

### IANL

**Type:** OMEGAMON Immediate command

**Description:** Controls Impact Analysis functions. Impact analysis is well suited for detailed analysis of workload contention problems that have been identified by DEXAN or exception analysis. Impact analysis can accurately identify the source of resource contention, because it focuses on workloads as they contend for resources. IANL enables you to do the following:

- See how a favored workload is being impacted by other workloads.
- See how a favored performance group is being impacted by other workloads or performance groups.
- See how a performance group is competing with itself for resources.
- Group workloads or performance groups together and see how they are being impacted as a group.
- List workloads and groups that are being monitored in the current session.
- Add or delete workloads from the session.
- Change default settings for the collection and display parameters.

Once you have started monitoring a workload, you can use the IPRO command to display its Workload Impact Profile.

```
IANL [ ]
[P]
[PD]
[Workload,[DELETE]]
[PG=Performance group number]
[GROUP=Groupname=(Memberlist)]
[END/STOP/QUIT]
[LIST=[ALL]]
```

**I** Label prefix used to control the display format. Valid labels are:

- **S** Displays the summary format.
- **D** Displays the detail format.
Displays the impact analysis screen for the last monitored workload that was
displayed. Add the appropriate prefix to indicate the display format you want.

**P**
Displays the impactors as performance groups. For example, to display the impact
on performance group 2 that is caused by other performance groups, add the suffix
P to the IANL command as follows:

```
IANLP PG=2
```

**PD**
Displays the impactors as individual workloads within performance groups

You can also monitor the impact of individual address spaces within performance
groups. For example, to display the impact on performance group 2 that is caused
by performance groups and address spaces within each performance group, add
the suffix PD to the IANL command as follows:

```
IANLPD PG=2
```

**workload**
Starts monitoring and displays information for the specified workload.

Once you have started monitoring a workload, you can display any of the three
display types for it by adding the appropriate label, or you can display a Workload
Impact Profile by adding the IPRO command. If you enter the IANL command
without a workload name, the system remembers the last workload that you
selected during the session and generates a display for that workload.

**PG=**Performance group number

Starts monitoring and displays information for a specified performance group.
Performance group symbolic names cannot be used to select a performance group
for analysis.

Impact analysis group displays differ from single workload displays in the way that
they show self-contention. Group displays show how the workloads are being
impacted as a group. If a member of the group is contending with itself or with
another member of the group, it is shown simply as another impact source.

If you are concerned about contention between members of the group, display
information for each workload in the group. This provides a more detailed view of
contention between members than is provided by the group display.

**GROUP=**Groupname=[(member list)]

Defines a group of workloads as an impact group, where group name is the
user-defined group name, and member list is the list of members in the group. The
first character of the group name must be non-numeric. Members of the group can
be workloads or performance groups.

For example, to combine the TSO users TSO1, TSO2, and TSO3 into a reporting
group called TSO33, enter the following command:

```
IANL GROUP=TSO33=(TSO1,TSO2,TSO3)
```

**GROUP=**Groupname

Selects a user-defined group of workloads for analysis. The group name is defined
by the operand GROUP = group name = member list.

For example, to monitor the group TSO33 (as defined above), enter the following
command:

```
IANL GROUP=TSO33
```
In interpreting IANL output, you should be aware that in addition to contending workloads, impact may also be attributed to System, which means that Impact Analysis is unable to identify a specific address space as the source of contention. This may be because the contention stopped before Impact Analysis was able to analyze it, or because the nature of the contention is such that no single address space is responsible. System contention always appears as the last item in an Impact Analysis display, regardless of its severity.

**Related Information:** Other Impact Analysis commands: IACL[nn], IACS[nn], IANC[nn], IANQ[nn], IAST[nn], IATH[nn], IATO, and IPRO

**IANQ**

**Type:** OMEGAMON Immediate command

**Description:** Sets the enqueue sampling interval as a multiple of the normal sampling interval for Impact Analysis.

**IANQ[nn]**

- [ON]
- [OF]
The ON and OF operands enable and disable enqueue data collection. By default, enqueue sampling is disabled. If enqueue sampling is enabled, the default multiple is 10. Although the collector must be stopped to change this parameter, the current value can be displayed while collection is ongoing.

**Related Information:** Other Impact Analysis commands: IACL[nn], IACS[nn], IANC[nn], IANL, IAST[nn], IATH[nn], IATO, and IPRO

**IAST[nn]**

**Type:** OMEGAMON Immediate command

**Description:** Specifies the sampling interval for Impact Analysis in tenths of a second. If entered without an operand (the value range is 1-99), the current value of the interval is displayed. The default is .9 seconds. This command can be used while the collector is running.

**Related Information:** Other Impact Analysis commands: IACL[nn], IACS[nn], IANC[nn], IANL, IANQ[nn], IATH[nn], IATO, and IPRO

**IATH[nn]**

**Type:** OMEGAMON Immediate command

**Description:** Determines the number of contenders shown on the IANL display, based upon the severity of the impact. By default, only contenders that account for 5% or more of the total non-idle time are shown. The operand (the valid range is 0-99) to this keyword sets the display threshold as a minimum contention amount (expressed as a percentage of total contention).

For example, IATH03 sets the threshold at 3%. If no operand is entered, the current value is displayed. If the operand is set to 0, all contenders are shown. This command can be used while the collector is running.

**Related Information:** Other Impact Analysis commands: IACL[nn], IACS[nn], IANC[nn], IANL, IANQ[nn], IAST[nn], IATO, and IPRO

**IATO**

**Type:** OMEGAMON Immediate command

**Description:** Specifies how long the Impact Analysis collector remains active after its last use.

**IATOnn**

The variable nn is the number of minutes the Impact Analysis collector remains active after an Impact Analysis command is issued. The valid range is 0 (meaning that Impact Analysis will not time out), through 99 minutes.

When the period of time you specify with the IATO command elapses without a subsequent Impact Analysis command, the collector terminates, and frees all data areas except the group definitions and workload memory block. Any Impact Analysis command, including environmental commands such as IAST and IACS, begins a new time-out countdown.
Related Information: Other Impact Analysis commands: IACL[nn], IACS[nn], IANC[nn], IANL, IANQ[nn], IAST[nn], IATH, and IPRO

ICHP

Type: OMEGAMON Minor command

Description: Dumps Installed channel path table (XA). (There are other entries with the same name. See the next entry for ICHPn as a minor of disk information commands.) By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

ICHPn

Type: OMEGAMON Minor command

Description: Displays installed channel paths for the disk (XA). (There are other entries with the same name. See previous entry for ICHP as a minor of DUMP.) The value of n is a number from 1 to 8.

Related Information: Minor of: See Disk Information Commands in “Command Groupings” on page 17.

ICPU

Type: OMEGAMON Minor command

Description: Displays the CPU activity within an address space. CPU activity information is shown in real time during the progress of a job.

ICPUnn TCB(ccc) LMOD(ccc) CSECT(cccc) OFF(ccccccc) GR(ccccc) aaaaa

nn Skips first nn lines of display. This can be a number from 1 to 99999. The default is 0.

TCB(ccc) Specifies which task (ccc) to monitor. The default is *, which specifies all tasks.

LMOD(ccc) Specifies load module (ccc) to monitor. The default is *, which specifies all load modules.

CSECT(cccc) Specifies CSECT (cccc) to monitor. The default is *, which specifies all CSECTs.

OFF(ccccccc) Specifies the first offset (cccccc) of a CSECT to monitor. The default is X’0’.
The following shows how to proceed through the different levels of the ICPU display. When you first enter ICPU with no operands, TCB(*) appears beside it to indicate that all tasks are being monitored. The first line of the ICPU display shows % CPU utilization. Succeeding lines show tasks in order of their addresses (the default). The following figure shows the MONITOR task using 100% of the CPU.

| INSP |
| +    Current sampling options: |
| +      JOB(PROBJOB) ASID is 88 Sampling is active |
| +      SAMPLES (3000) INTERVAL(50) 200 samples have been taken |
| ICPU TCB(*) |
| +<..: % CPU Utilization +--------20--------40--------60--------80--------100 |
| + 1 61DA48 IEAVAR00   |
| + 2 61D258 IEESB605   |
| + 3 60A158 IEFIIC     |
| + 4 56FC48 MONITOR 100.0|=>                                |
| + 5 61D510 IEAVTST    |
| + 6 572E28*MONITOR2   |

**Note:** On a terminal with extended mode graphics, reverse video blanks appear as the plot symbol.

The asterisk (*) between address 572E28 and module MONITOR2 indicates a task that was present during earlier samples, but is no longer present.

To further investigate the MONITOR task, use one of the following methods:

- Change the TCB(*) to TCB(4) OR move the cursor to the 4 field and press Enter.
- Change the TCB(*) to TCB(56FC48) OR move the cursor to the 56FC48 field and press Enter.
- Change the TCB(*) to TCB(MONITOR) OR move the cursor to the MONITOR field and press Enter.
ICPU then displays the resource consumption of the load modules associated with the task:

```
INSP
+    Current sampling options:
+    JOB(PROBJOB) ASID is 88    Sampling is active
+    SAMPLES (3000) INTERVAL(50) 200 samples have been taken

ICPU TCB(56FC48) LMOD(*)
+<:. % CPU Utilization        +----+---10----+---20----+---30----+---40----+---50
+  1 125238 MONITOR 19.30 |==================>
+  2 254320 MONDSPL0 .00 |
+  3 3557A8 MONTEMP .00 |
+  4 60A158 MONGRPH0 34.60 |====================================>
+  5 65CF48 MONDATA0 46.10 |==============================================>
+  6 C70FD3 ISGPREP +15.40 |===============>
```

The plus sign next to module ISGPREP means that CPU time was accumulated under another address space ID.

Note that OMEGAMON adjusts the CPU utilization scale to maximize the use of the plots, following the pattern 100%, 50%, 10%, 5%, 1%, and so on.

You can then examine the CPU consumption of the MONITOR load module, broken down into CSECTs, by one of the following methods:

- Change the LMOD(*) to LMOD(1) OR position the cursor in the 1 field and press Enter.
- Change the LMOD(*) to LMOD(125238) OR position the cursor in the 125238 field and press Enter.
- Change the LMOD(*) to LMOD(MONITOR) OR position the cursor in the MONITOR field and press Enter.

ICPU then displays the resource consumption of the CSECTs associated with the load module. The dots below CSECT 4 indicate that data is omitted from the figure.

```
INSP
+    Current sampling options:
+    JOB(PROBJOB) ASID is 88    Sampling is active
+    SAMPLES (3000) INTERVAL(50) 200 samples have been taken

ICPU TCB(56FC48) LMOD(MONITOR) CSECT(*)
+<:. % CPU Utilization        +----+---.1----+---.2----+---.3----+---.4----+---.5
+  1 125238 MAIN 0.412 |================================================================>
+  2 134020 WASTE 0.184 |==================>
+  3 1362000 LIE 0.349 |================================================================>
+  4 142450 MISTAKE 0.440 |================================================================>
```

You can then examine the CPU usage of the MAIN CSECT by one of the following methods:

- Change the CSECT(*) to CSECT(1) OR position the cursor in the 1 field and press Enter.
- Change the CSECT(*) to CSECT(125238) OR position the cursor in the 125238 field and press Enter.
- Change the CSECT(*) to CSECT(MAIN) OR position the cursor in the MAIN field and press Enter.
ICPU then displays the resource consumption of the CSECT broken down into addresses. At this level, ICP教堂 displays the default values for OFF (which is 0) and GR (which is 20); ICP教堂 adjusts the value for GR so that the display exactly fits your physical terminal screen. To look at other parts of the CSECT, enter different values for OFF.

The dots below address 4 indicate that data is omitted from the figure.

The less-than symbol (<) in column 2 of the plot line lets you navigate through ICP教堂 displays in reverse. Simply move the cursor to this position and press Enter to move, for example, from the CSECT level up to the load module level display.

If the load module name displays as $PRIVATE, then use the MLIB command to specify additional libraries to be used to resolve the CSECT maps for the programs being reported on. If the module was loaded by some means that does not produce a normal LLE, then ICP教堂 is unable to determine the load module name, and displays *-UNKN-*.

**Related Information:** Minor of: INSP

Other Applications Tuning minor: MLIB

**ICT**

**Type:** OMEGAMON Minor command

**Description:** Dumps SRM I/O Management Control Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST
ID1

**Type:** OMEGAMON Minor command

**Description:** Requests separator pages and page headers that identify output from different OMEGAMON sessions. ID1 is active under ddname or SYSOUT.

* Type: Minor of OUTP
* Format: ID1 cccccccc

* OMEGAMON generates separator pages and page headers with the appropriate job name printed in block letters on the pages. This is the default.

*NONE*

omegamon does not generate separator pages and page headers.

cccccccc OMEGAMON generates separator pages and page headers with cccccccc printed in block letters on the pages. cccccccc is up to 8 user-defined characters.

**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDMN, DEST, DSTU, FOLD, FORM, HOLD, ID2, ID3, ID4, LNCT, and SOUT

ID2

**Type:** OMEGAMON Minor command

**Description:** Defines up to 16 characters on the left of separator page. ID2 is active under ddname or SYSOUT.

* ID2 ccc...ccc

When separator pages and page headers are requested with ID1, ID2 can define up to 16 characters to appear on the left of the separator page justified below the block letters.

**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDMN, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID3, ID4, LNCT, and SOUT

ID3

**Type:** OMEGAMON Minor command

**Description:** Defines up to 16 characters in the center of separator page. ID3 is active under ddname or SYSOUT.

* ID3 ccc...ccc

When separator pages and page headers are requested with ID1, ID3 can define up to 16 characters to appear centered on the separator page below the block letters.

**Related Information:** Minor of: OUTP
Other print output options minors: COPY, DDNM, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID4, LNCT, and SOUT

ID4

**Type:** OMEGAMON Minor command

**Description:** Defines up to 16 characters on the right of the separator page. ID4 is active under ddname or SYSOUT.

**ID4 ccc...ccc**

When separator pages and page headers are requested with ID1, ID4 can define up to 16 characters to appear on the right of the separator page justified below the block letters.

**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDNM, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID3, LNCT, and SOUT

.ILC

**Type:** OMEGAMON Immediate command

**Description:** Displays INFO-line commands or their help text.

**.ILC /cccccc**

The variable /cccccc is an INFO-line command name (slash is optional). To display all of the INFO-line commands and their aliases, enter the .ILC command without a command name.

To display help text for a specific INFO-line command, enter .ILC followed by the command. For example, the next command generates an explanation of the /STOP INFO-line command.

**.ILC /STOP**

**Related Information:** None

INSP

**Type:** OMEGAMON Major command

**Description:** Displays the current sampling parameters and status of this facility, which monitors applications running in an address space. It also shows TCB CPU resource consumption.

**INSP JOB(cccccccc) SAMPLES(nnnn) |NOLIMIT INTERVAL(nnn) STOP|START**

When you enter the INSP command beginning in column 2, the cursor automatically moves to column 7 to accept an operand. The operand can be:

**JOB(cccccccc)** The variable cccccccc specifies the address space INSP monitors. This can be a jobname, * (the current address space), or the ASID value in decimal.

**SAMPLES(nnnn)** Number of samples to gather. The default is 3000. If you set the sample number to 0, it has the same effect as the NOLIMIT operand.
The INSP command requires APF-authorization and MVS/SP 1.3 or above.

To use the applications tuning facility, follow the procedure below.

- Issue the INSP command.
  ```
  INSP
  ```
  The following display appears:

  ![Screen shot]

  - To begin sampling, enter INSP START or the action character (-) in column 1.
    ```
    INSP START
    ```
  - Sampling begins and its progress appears:
    ```
    INSP
    + Current sampling options:
    + JOB(USER1) ASID is 38 Sampling is not active
    + SAMPLES(200) INTERVAL(100)
    + Samples taken = 25; samples used = 15
    ```
    - The figure given for samples taken includes both valid and not valid samples. Samples used reflects valid samples. A not valid sample may result from the address space being swapped out or not accumulating CPU.
    - NSP completes the sampling when the SAMPLES limit is reached or when you enter the STOP parameter:
      ```
      INSP STOP
      ```
      The following display appears:
      ```
      INSP
      + Current sampling options:
      + JOB(USER1) ASID is 38 Sampling is not active
      + SAMPLES(200) INTERVAL(100) 200 samples have been taken
      + Samples taken = 25; Samples used = 15
      ```

### Keywords

- **NOLIMIT** Specifies sampling to continue until you enter the STOP command.
- **INTERVAL(nnn)** The variable nnn is the duration of the interval (in milliseconds) between samples. The default is 10 milliseconds.
- **STOP** Stops sampling immediately. You can use this parameter to terminate sampling before NSP reaches the specified sampling limit.
- **START** Begins sampling and displays results. Using the action character (-) in column 1 is the same as using this operand.

---

```
INSP
+ Current sampling options:
+ JOB(USER1) ASID is 38 Sampling is not active
+ SAMPLES(200) INTERVAL(100)
+ Samples taken = 25; samples used = 15
```
**Related Information:** Major of: ICPU and MLIB

**IODP**

**Type:** OMEGAMON Minor command  
**Description:** Displays I/O dispatching priority.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

**IOJ**

**Type:** OMEGAMON Minor command  
**Description:** Displays I/O count. You usually use this command with .R to produce the EXCP rate. To display the value as a difference between two OMEGAMON cycles, use an argument of .D.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

**IOPT**

**Type:** OMEGAMON Immediate command  
**Description:** Sets installation profile options.

\[
\text{IOPT [NONSWAP=ON|OFF,]  [PAGEFIX=ON|OFF,]  [RESERVE=ON|OFF,]  [TSOFIX=ON|OFF]}\]

- **NONSWAP**  
  Turns nonswap storage mode on or off.

- **PAGEFIX**  
  Turns pagefix storage mode on or off. When pagefix storage is turned on, all of the OMEGAMON storage (except the DEXAN work area) is pagefixed.

- **RESERVE**  
  Specifies whether or not to issue a DASD RESERVE when a member is saved to OcPROCSV.

- **TSOFIX**  
  Turns pagefix storage on or off for TSO.

IOPT settings do not take effect until your next session.

**Related Information:** None

**IOSnnn**

**Type:** OMEGAMON Minor command  
**Description:** Sets threshold for average IOS queue time > nnn milliseconds per I/O (XA).

**Related Information:** Minor of: STAT
Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx,
CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, LCHRxx,
LCOMxxx, LCTCxxx, LCU xxx xx, LSDKxxx, LGRAxx, LTAPxxx, LUR xxx, PDSK ccccccc,
PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx:, SGRAxxx,
STAPxxx, SURxxx, and XDSK

IPRF

**Type:** OMEGAMON Immediate Command

**Description:** Saves or deletes the installation-defined default profile.

**IPRF SAVE|DELETE**

**SAVE** Saves the installation profile in the dataset defined by the OMPROFSV DD statement.

**DELETE** Deletes the installation profile from the dataset defined by the OMPROFSV DD statement.

OMEGAMON automatically assigns the 2-character code /I to the installation profile. /I is
used on the USER= startup parameter to load this profile, and it appears on the INFO-line
during the session.

The installation-defined profile for OMEGAMON for MVS is stored as member name
OMINSTAL.

**Related Information:** See also PPRF.

IPRO

**Type:** OMEGAMON Immediate command

**Description:** Generates the Workload Impact Profile, which shows a graphic illustration of
current contention on your system. (There are other entries with the same name. See the next
entry for a description of IPRO as a minor of DEXAN.)

**IPRO [IANL [P]**

[Workload]

[PG=Performance group number]

[GROUP=Groupname]]

IPRO does not support the labels S and D, or the suffix PD.

Note the following guidelines for using this command:

- IPRO cannot be used to initiate monitoring. You must first start monitoring the job or
group with the IANL command.
- If you do not specify a jobname or group name, IPRO defaults to the last job or group
specified with IANL.
- If you do not specify IANL, the operand defaults to the last one issued with IPRO.
The IPRO command remembers its last set of operands, and if it is entered alone, it uses the last operands to construct the profile.

Contending workloads are shown in order of decreasing severity, including self-contention and system contention. To ensure a statistically significant display, the profile displays only the long-term wait condition figures available with the IANL command, and not the short-term ones.

For terminals with extended color in effect, the Workload Impact Profile appears in the colors set for levels 5, 6, and 7. The graph itself appears in the level 5 color, the impact source labels are in the level 7 color, and the lines pointing from the impact source labels to the graph are in the level 6 color.

The Workload Impact Profile is most useful when the favored workload is experiencing response time problems. When response time is acceptable, the profile provides a picture of contention that is non-critical, and no tuning is required. If response time worsens due to contention from other workloads, the Workload Impact Profile may also change, indicating a possible cause of the response time problem.

**Related Information:** Other Impact Analysis commands: IACL[nn], IACS[nn], IANC[nn], IANL, IANQ[nn], IAST[nn], IATH[nn], and IATO

### IPRO

**Type:** OMEGAMON Minor command

**Description:** Displays resource impact profile. (There are other entries with the same name. See the previous entry for a description of IPRO as an Immediate command.) Use the IPRO command preceding a plot command such as IPRO PLT01 to display a resource impact profile. The plot commands that you may use with IPRO are:

- **PLTnnnn** Displays a resource impact profile for performance group nnnn.
- **PLTFnn** Displays a resource impact profile for period one of the performance group with DEXAN slot number nn.
- **MONJnn** Displays a resource impact profile for the address space with DEXAN slot number nn or jobname.
- **PLTJnn** Displays a resource impact profile for the address space with DEXAN slot number nn or jobname.
- **PLTAnn** Displays a resource impact profile for the address space with DEXAN slot number nn.
- **PLTS** Displays a resource impact profile for systemwide address spaces.

For example, IPRO PLT1 would display a resource impact profile for performance group 1.

---

**Deposit >>** DX0000 V75 running. Cycles=214 STIM=2.2 Elap=7:53 MN <<<
**BEGIN >>** DX1000 The data collector started. Workarea size= 40112 Bytes <<<
**IPRO PLTP1**
A typical resource impact profile screen for a performance group follows:

The resource impact profile is an alternative to the plot display for showing degradation data. The resource impact profile shows more graphically the impact of system resources on a workload. The vertical lines represent a workload’s productivity. For wait reasons the arrows intruding from the right represent the impact a resource has on productivity. The greater the indentation, the greater the impact the system resource has on productivity. The indentations correlate directly to the actual percentage of time the workload waited for or used a resource.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn,CNTS, END, FLST, FOFnnnn, FONnnnn, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTA nn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn
J Commands and Keywords

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J2LD

**Type:** OMEGAMON Minor command

**Description:** Loads a specific JES2 offset table. JES2 service analysis is automatically activated when the DEXAN collector is started. Two conditions must be met for collection to take place:

1. JES2 must be the primary subsystem, and
2. JES2 must be active when the DEXAN collector is started.

Service analysis requires the use of an offset table unique to the JES2 release in use on your system. (If modifications have been made to the JES2 control blocks at your installation, the corresponding offset table must be reassembled. This is normally done during installation, and is described in the *OMEGAMON II for MVS Configuration and Customization Guide*.) The following tables are supplied by Candle Corporation for the various JES2 releases:

Specify the correct module as an operand with the JES2TBL keyword. Use the following table as a guide:

| JES2/SP 1.2.x | KJITB212 |
| JES2/SP 1.3.3 | KJITB213 |
| JES2/SP 1.3.4 | KJITB214 |
| JES2/SP 1.3.6 | KJITB216 |
| JES2/SP 2.1.5 | KJITB225 |
| JES2/SP 2.2.0 | KJITB220 |
| JES2/SP 3.1.1 | KJITB231 |
| JES2/SP 3.1.3 | KJITB233 |
| JES2/SP 4.1.x | KJITB241 |
| JES2/SP 4.2.x | KJITB242 |
| JES2/SP 4.3.x | KJITB243 |
| JES2/SP 5.1.x | KJITB251 |
| JES2/SP 5.2.x | KJITB252 |

The appropriate offset table is automatically loaded when the collector is started. The J2LD command allows you to modify table loading in two ways:

- You can turn off JES2 service analysis using the NONE operand.
- You can load a different table by supplying the table name as an operand.

**Note:** You must stop the DEXAN collector before entering the J2LD command.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnnn
Commands and Keywords

PCTJnnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPgnn

J2ST

Type: OMEGAMON Minor command

Description: Displays current status of JES2 offset table.

Related Information: Minor of: DEX
Other DEXAN minors: ADKnnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnnn, CNTAnn, CNTTnnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPgnnnn

JAS#nn

Type: OMEGAMON Major command

Description: Selects address space with ASID=#nn, where nn is a decimal number. This command selects one address space only; therefore use it to monitor specific address spaces. If an ASID has three digits, use JASnnn. JAS# issues a message if the selected address space is unusable.

Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.
See also .SPT.

JASnnnn

Type: OMEGAMON Major command

Description: See JAS#nn..

Related Information: None

JBIA

Type: OMEGAMON Minor command

Description: Displays the number of blocks paged in from auxiliary storage (MVS/SP 4.2 and above).

Related Information: Other Address Space Block Paging Commands: JBIE, JBOA, JBOE, JEBI, JEBO, JPBI, JPBO, JPIN, and JPOT
Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JDMnnn, JLSW, JOBN cccccccc, JPAG, Jpmmnn, JPRnnn, JRES, JSANnn, JSNCnn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX
JBIE

**Type:** OMEGAMON Minor command

**Description:** Displays the number of blocks moved in from expanded storage.

**Related Information:** Other Address Space Block Paging Commands: JBIA, JBOA, JBOE, JEBI, JEBO, JPBI, JPBO, JPIN, and JPOT

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JDMnnn, JLSW, JOBn cccccccc, JPAG, JPrnnn, JPRnnn, JRES, JSNAnn, JSNCnn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

JBOA

**Type:** OMEGAMON Minor command

**Description:** Displays the number of blocks paged out to auxiliary storage (MVS/SP 4.2 and above).

**Related Information:** Other Address Space Block Paging Commands: JBIA, JBIIE, JBOE, JEBI, JEBO, JPBI, JPBO, JPIN, and JPOT

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JDMnnn, JLSW, JOBn cccccccc, JPAG, JPrnnn, JPRnnn, JRES, JSNAnn, JSNCnn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

JBOE

**Type:** OMEGAMON Minor command

**Description:** Displays the number of blocks moved out to expanded storage (MVS/SP 4.2 and above).

**Related Information:** Other Address Space Block Paging Commands: JBIA, JBIIE, JBOE, JEBI, JEBO, JPBI, JPBO, JPIN, and JPOT

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JDMnnn, JLSW, JOBn cccccccc, JPAG, JPrnnn, JPRnnn, JRES, JSNAnn, JSNCnn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

JCAF

**Type:** OMEGAMON Minor command

**Description:** Displays CPU affinity. This is for multiprocessors.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DPRT, DVCT, RCP%, RCPU, SEQN, SRBT, SRB2, and TCP2

JCPU

**Type:** OMEGAMON Major command
**Description:** Selects CPU dispatchable address spaces.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

**JDMnnn**

**Type:** OMEGAMON Major command

**Description:** Selects address spaces in domain nnn. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

**JEBO**

**Type:** OMEGAMON Minor command

**Description:** Displays the number of blocked pages moved out to expanded storage (MVS/SP 4.2 and above).

**Related Information:** Other Address Space Block Paging Commands: JBIA, JIBE, JBOA, JBOE, JEBO, JPBI, JPBO, JPIN, and JPOT

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JDMnnn, JLSW, JOBN cccccccc, JPAG, Jpnnnn, JPRnnn, JRES, JSNAnn, JSNCnn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

**JLSW**

**Type:** OMEGAMON Major command

**Description:** Selects address spaces in logically swapped status. These are address spaces that are waiting and are logically swapped out.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.
JOBN cccccccc

**Type:** OMEGAMON Major command

**Description:** Selects address space cccccccc. In dedicated mode, you must position the cursor on another line before the command takes effect.

Related Information: Major of: See *Address Space Information Commands* in “Command Groupings” on page 17.

See also .SPT.

JOBS

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays values available from the private area. The following screen shows a typical JOBS display.

![JOBS Display](image)

When the **Programmer Name** field is blank in the job statement, the JOBS minor command does not display that line. JOBCLASS information only appears for batch jobs. The job class is that class originally associated with the job. If a JES command was requeued prior to execution, the original job class from the CLASS= parameter in the JCL JOB statement will appear.

![JOBS Display](image)

**Related Information:** Minor of: PEEK

Other Authorized Minors that Collect Data About Address Spaces: AMAP, DATA, DDNS, MODS, STEP, SUBP, and TCBS

JPAG

**Type:** OMEGAMON Major command

**Description:** Selects all address spaces waiting on a page operation.

**Related Information:** Major of: See *Address Space Information Commands* in “Command Groupings” on page 17.

See also .SPT.

JPBI

**Type:** OMEGAMON Minor command

**Description:** Displays the number of blocked pages paged in from auxiliary storage (MVS/SP 4.2 and above).
Related Information: Other Address Space Block Paging Commands: JBIA, JBIE, JBOA, JBOE, JEBI, JEBO, JPBO, JPIN, and JPOT

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JD#nnn, JLSW, JOBN cccccccc, JPAG, J#mnnn, JPR#nnn, JRES, JSNAnn, JSN#nn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

**JPBO**

Type: OMEGAMON Minor command

Description: Displays the number of blocked pages paged out to auxiliary storage.

Related Information: Other Address Space Block Paging Commands: JBIA, JBIE, JBOA, JBOE, JEBI, JEBO, JPBO, JPIN, and JPOT

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JD#nnn, JLSW, JOBN cccccccc, JPAG, J#mnnn, JPR#nnn, JRES, JSNAnn, JSN#nn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

**JPCI**

Type: OMEGAMON Minor command

Description: Displays address space common area page-ins. To display this value as a rate, use an argument of .R.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPGR, JPGS, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

**JPGR**

Type: OMEGAMON Minor command

Description: Displays page reclaims for address space (XA). This value is zero if the address space is swapped out. To display this value as a rate, use an argument of .R.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPGS, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

**JPGS**

Type: OMEGAMON Minor command

Description: Displays pages stolen from address space. To display this value as a rate, use an argument of .R.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space SRM Activity minors: HUIC, JPCI, JPGR, JPUI, JPUO, JRCM, JRCM, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR
JPIN

Type: OMEGAMON Minor command

Description: Displays the number of pages moved in from expanded storage (MVS/SP 4.2 and above).

Related Information: Other Address Space Block Paging Commands: JBIA, JBI, JBOA, JBOE, JEBI, JEBO, JPBI, JPBO, and JPOT

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JDMnnn, JLSW, JOBN cccccccc, JAPG, JPrnnn, JPRnnn, JRES, JSNA#nn, JSNCnn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

JPrnnn

Type: OMEGAMON Major command

Description: Selects address spaces in performance group nnn and period m. If you replace the number m with the letter R, period selection is ignored. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

JPOT

Type: OMEGAMON Minor command

Description: Displays the number of pages moved out to expanded storage (MVS/SP 4.2 and above).

Related Information: Other Address Space Block Paging Commands: JBIA, JBI, JBOA, JBOE, JEBI, JEBO, JPBI, JPBO, and JPIN

Minor of: ALLJ, BATJ, BATL, BATX, BCPU, BIO, BSWP, BWAT, JAS#nn, JCPU, JDMnnn, JLSW, JOBN cccccccc, JAPG, JPrnnn, JPRnnn, JRES, JSNA#nn, JSNCnn, JSWP, STCJ, STCL, TPD#nn, TSOD, TSOJ, TSOL, and TSOX

JPRnnn

Type: OMEGAMON Major command

Description: Selects address spaces in performance group nnn. Use JPrnnn for period selection. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.
JPUI

**Type:** OMEGAMON Minor command

**Description:** Displays address space page-ins. To display this value as a rate, use an argument of .R.

**Related Information:** Minor of: See Address Space Information Commands (OMEGAMON) in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPGR, JPGS, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

JPUO

**Type:** OMEGAMON Minor command

**Description:** Displays address space page-outs. To display this value as a rate, use an argument of .R.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPGR, JPGS, JPUI, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

JRCM

**Type:** OMEGAMON Minor command

**Description:** Displays composite job recommendation value. This value is calculated as:

\[
JRCM = JRCP + JRIO + JRWL + JRST
\]

At certain times, the numbers may not add up to JRCM due to SRM algorithm adjustments. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPGR, JPGS, JPUI, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

JRES

**Type:** OMEGAMON Major command

**Description:** Selects resident address spaces. JRES selects:

- non-swappable system tasks (such as *MASTER*, JES2, TCAM, VTAM, and CICS™)
- executing batch jobs
- batch jobs waiting on tape mounts only
- executing TSO users
Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

JRCP

Type: OMEGAMON Minor command

Description: Displays CPU manager recommendation value (pre-MVS/SP 4.2). JRCP is defined only if CPU load balancing is in effect for this address space.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPSG, JPUI, JPUO, JRCM, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

JRIO

Type: OMEGAMON Minor command

Description: Displays I/O manager recommendation value (pre-MVS/SP 4.2). JRIO is defined only if I/O load balancing is in effect for this address space.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPSG, JPUI, JPUO, JRCM, JRCP, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

JRST

Type: OMEGAMON Minor command

Description: Displays storage manager recommendation value (pre-MVS/SP 4.2). JRST is defined only if storage load balancing is in effect for this address space.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPSG, JPUI, JPUO, JRCM, JRCP, JRIO, JRWL, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR

JRWL

Type: OMEGAMON Minor command

Description: Displays workload manager recommendation value (pre-MVS/SP 4.2).

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPSG, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, SUAL, SUCP, SUIO, SUMS, SUPR, and SWPR
JSNAnn

**Type:** OMEGAMON Major command

**Description:** Selects address spaces with dispatching number \( nn \). JSNAnn displays as many address spaces as can fit on a line, by their CPU dispatching sequence order beginning with number \( nn \).

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

JSNCnn

**Type:** OMEGAMON Major command

**Description:** Selects CPU dispatchable address space with dispatching number \( nn \). JSNCnn is the same as JSNAnn, except that it shows only address spaces ready to execute (contending for CPU cycles).

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

JSTA

**Type:** OMEGAMON Minor command

**Description:** Displays job status. The output for this command is \( aaabccc \), where

- **aaa** dispatchability:
  - CPU Address space is CPU dispatchable
  - WAT Address space is wait

- **b** transaction flag:
  - * Address space is in a transaction
  - Address space is not in a transaction

- **ccc** location:
  - RES Address space is resident
  - NSW Address space is resident and nonswappable
  - LSW Address space is logically swapped (SE2 and above only)
  - SWP Address space is swapped out
  - DLY Address space is delayed (SE2 and above only)
Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

JSWP

Type: OMEGAMON Major command

Description: Selects physically swapped address spaces. JSWP selects idle address spaces that are swappable and swapped out, such as:

- RMF
- RMF
- batch jobs waiting (except those waiting on tape mounts)
- jobs swapped by SRM
- TSO users not in transaction
- idle initiators

Related Information: Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

jWPF

Type: OMEGAMON Immediate command

Description: Displays profile information for one or more workloads.

jWPF [xx] JOB[ccccccl*]
STC[ccccccl*]

xx An integer value that requests OMEGAMON to skip the first xx lines of output. If you use this value, you must specify it as the first operand.

JOB Identifies a specific batch job or all batch jobs. Use JOB(cccccccc) to display information for a particular started task or JOB(*) to display information for all batch jobs.

STC Identifies a specific started task or all started tasks. Use STC(cccccccc) to display information for a particular started task or STC(*) to display information for all started tasks.

Related Information: Other Workload Profile Facility commands: dWPF, EPCE, EPRE, ETAE, ETRE, and WPF
KILL

**Warning**
Candle strongly advises discretion in the use of this command.

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Terminates an address space. KILL terminates an address space, which causes the target address space to terminate with a system A22 abend. Along with the KILL command, you must specify the jobname or the decimal ASID number.

```
[-]KILL cccccccc
```

- The required action character in column 1: Executes the command once and changes to a comment character (>) when the command executes successfully.
- `cccccccc` Jobname or ASID `nnnnn` number (in decimal)

When OMEGAMON responds, you must supply an action character (-) in column 1 before the command executes.

The results of a successful KILL command under OMEGAMON are exactly the same as the results of the MVS FORCE command; however, there are some differences in how they operate:

- The FORCE command sometimes delays or is unable to execute at all, because it must enqueue on the CSCB chain in order to search it; KILL does not search the CSCB chain, and so avoids this problem.

- CSCB chain

- FORCE does not operate unless a CANCEL is in effect for the address space; KILL has no such restriction.

- You can only issue FORCE from the MVS master console; the OMEGAMON security facility controls KILL.

- You cannot use the unit address instead of the job name to cancel a started task.

Sometimes you must remove a job from the system to avoid an IPL. The MVS FORCE command attempts this, but frequently fails; the KILL command is successful in many cases in which FORCE does not work. However, KILL has no more cleanup than FORCE, so, like FORCE, you should use it with discretion.

**Related Information:** None

**LAFQ**

**Type:** OMEGAMON Minor command
### Description:
Displays available frame queue count and threshold for logical swap think time adjustment. This command displays the current available frame count, as well as the happy values used to adjust the system think time, which the THNK minor command of SYS displays. This command shows how the current values affect SRM adjustments to the system. This command is not valid for MVS 3.1.3.

### Related Information:
Minor of: SYS

Other SRM Information commands: CPGR, CWSS, LUIC, RASQ, RBEI, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTRL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

#### LCCAnn

- **Type:** OMEGAMON Minor command
- **Description:** Dumps logical configuration communication area (LCCA) for processor nn. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1. OMEGAMON must be APF authorized for the LCCA command to work.

- **Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

#### LCHRxxx

- **Type:** OMEGAMON Minor command
- **Description:** Displays statistics about optical character readers connected by LCU xxx (XA). This minor command selects any device of the indicated type that was assigned to Logical Control Unit (LCU) xxx, where xxx is a hexadecimal LCU ID. The system assigns these LCU numbers during the IOCDS generation.

- **Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxxx, CCOMxxx, CCTCxx, CDSKxx, CGRAxxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LSDKxxx, LGRAxxx, LTAPxxx, LUR xxx, PSDK ccccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

#### LCOMxxx

- **Type:** OMEGAMON Minor command
- **Description:** Displays statistics about communications devices connected by LCU xxx (XA). This minor command selects any device of the indicated type that was assigned to Logical Control Unit (LCU) xxx, where xxx is a hexadecimal LCU ID. The system assigns these LCU numbers during the IOCDS generation.
Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, ESDK ccccccc, IOSnnn, LCHRxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP ccccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SSDKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

LCTCxxx

Type: OMEGAMON Minor command

Description: Displays statistics about channel-to-channel adapters connected by LCU xxx (XA). This minor command selects any device of the indicated type that was assigned to Logical Control Unit (LCU) xxx, where xxx is a hexadecimal LCU ID. The system assigns these LCU numbers during the IOCDS generation.

Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, ESDK ccccccc, IOSnnn, LCHRxxx, LCOMxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccccc, PNDnnn, PTAP ccccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SSDKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

LCU xxx xxx

Type: OMEGAMON Minor command

Description: Selects and supplies information about all devices attached to LCUs xxx through xxx (XA). The variable xxx is a hexadecimal LCU ID. The system assigns LCU numbers during the IOCDS generation. The minimum value for the first LCU in the range is 0, and the maximum value for the second one in the range is FFF.

If you enter the command with only one LCU number (that is, LCU xxx), data appears only for devices on the single LCU. If you enter the command without an argument, devices attached to all LCUs appear. For example, this is a typical LCU Display on Non-3090 Processor:
This is how the LCU command appears on a 3090 processor:

| LCU 000 FFF | >> Number of Samples = 187 << |
| + ID Contention Delay Q % All CHP CHP Control CHP % CU |
| + -- ----Rate--- - Length --Busy-- --Units-- Taken Busy |
| + 009 1.164 .14 1.728 16 161 26.021 8.870 |

The following fields appear on the display:

**ID**  
Logical Control Unit Number.

**RATE**  
Rate per second at which I/O requests were successfully started.

**Contention Rate**  
Rate per second at which the I/O processor places delayed I/O requests on the CU-HDR for this LCU.

**AVG Q LNGTH or Delay Q Length**  
Average number of requests on the LCU Control Word (CUCW).

**% ALL CP BUSY or % All CHP Busy**  
Percentage of time during the interval when all channel paths belonging to the LCU were busy at the same time.

**% REQUESTS DEFERRED**

**TOTAL**  
Total percentage of unsuccessful attempts to start an I/O.

**DV BUSY**  
Percentage of deferred requests because the device was busy.

**CU BUSY**  
Percentage of deferred requests because the control unit was busy.

**CHP or CHPID**  
Channel Path ID number of this LCU.

**CONTROL UNITS**  
Control Units comprising this LCU.

**CHP Taken**  
Rate at which I/O requests to devices of this LCU are satisfied by each CHPID during the interval.

**% CU Busy**  
Ratio of the number of requests deferred because the control unit was busy and the number of attempts to service I/O requests during the measurement interval.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRaxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxx, LDSKxx, LGRAxxx, LTAPxx, LUR xxx, PDSK cccc, PNDnnn, PTP ccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSLxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK
LDSKxxx

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about disks connected by LCU xxx (XA). This minor command selects any device of the indicated type that was assigned to Logical Control Unit (LCU) xxx, where xxx is a hexadecimal LCU ID. The system assigns these LCU numbers during the IOCDS generation.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONn, CTAPxx, CUR xx, DSCn, DUNn, EDSK cccccc, IOSn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK cccccc, PNDn, PTAP cccccc, RSPn, SCHRxxx, SCOMxxx, SCTCxxx, SDKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

LEXC

**Type:** OMEGAMON Immediate command

**Description:** Sets order of exceptions for exception analysis sampling. The LEXC command displays the order in which OMEGAMON executes exceptions. To change the sequence of exception messages displayed by the EXSY command, you can dynamically reorder the execution sequence. The following figure shows a partial LEXC display. To change the order of the exceptions, type over an exception name or its number.

You can also type in exceptions with new order numbers on the command line following the LEXC command. For example:

```
LEXC DNRS=1 WSHI=2 DRDY=3
```

**Related Information:** Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, MTA, TSR, XACB, XAS, XGRP, XGSR, XSUM, XTRP, and XTXT

LGID

**Type:** OMEGAMON Minor command

**Description:** Displays TSO logon ID that submitted a job. LGID is not valid for started tasks.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
LGRAxxx

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about graphics devices connected by LCU xxx (XA). This minor command selects any device of the indicated type that was assigned to Logical Control Unit (LCU) xxx, where xxx is a hexadecimal LCU ID. The system assigns these LCU numbers during the IOCDS generation.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxx, LCU xxx xxx, LDSKxxx, LTAP, LJU xxx, PDSK ccccc, PNDnnn, PTAP ccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

LINE

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays the last nn lines from the console you select.

**LINEnn**

To display the last 12 lines of the screen of console 11, enter this command:

```
CONS11   Master Console (ID=11)
line12
```

The LINE minor command displays only in-line messages, such as the display produced by the following command.

```
D A,L,L=Z
```

LINE does not display out-of-line messages, such as those produced by the following command.

```
D A,L,L=A
```

To avoid this situation, either use the L=Z operand where appropriate, or issue the following console control command to remove the out-of-line display areas:

```
K A,None
```

For JES2, OMEGAMON requires the $TM command to change the status information routing.

**Related Information:** Minor of: CONU and CONS

Other Console-Related minors: ACTN and MNT
Commands and Keywords

LLT

**Type:** OMEGAMON Minor command  
**Description:** Displays link list libraries and their APF-authorization status (XA, ESA). Each line of output contains one dataset name in the linklist concatenation.  
**Related Information:** Minor of: SYS

LNCT

**Type:** OMEGAMON Minor command  
**Description:** Sets the number of lines per page for the REPORT or XLFLOG file output.  
**LNCT nn**  
**Related Information:** Minor of: OUTP

Other print output options minors: COPY, DDNM, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID3, ID4, and SOUT

LOC

**Type:** OMEGAMON Immediate command  
**Description:** Displays all users of a specific dataset.  
**LOCnnn**  
The nnn argument skips the first nnn lines of output. LOCnnn displays all address spaces that currently have the dataset allocated (either with DISP=SHR or DISP=OLD), via normal job scheduling or dynamic allocation.  
The format of LOC is:  
**LOC dataset name**  
If special characters are used in the dataset name, enclose the dataset name in single quotes ('). If you enter:  
**LOC TDMVS.MERCED.TEXT**
the result is:

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Type</th>
<th>Jobname</th>
<th>Sysid</th>
</tr>
</thead>
<tbody>
<tr>
<td>SharedOwner</td>
<td>TSO</td>
<td>TDNY30</td>
<td>SYSA</td>
</tr>
<tr>
<td>SharedOwner</td>
<td>TSO</td>
<td>TDNY72</td>
<td>SYSA</td>
</tr>
</tbody>
</table>

**OWNERSHIP**
Indicates whether the job has the dataset allocated with disposition SHR (shared) or OLD (exclusive), and whether the job currently has the dataset allocated (owner) or is waiting in allocation for the dataset (waiter).

**TYPE**
Indicates whether the user is a started task (STC), time sharing user (TSO), batch job (BATCH), mount job (MOUNT), or no longer exists and did not DEQUEUE the resource (NODEQ).

**JOBNAME**
Displays the jobname/TSOID of the user.

**SYSID**
Shows the system ID of the GRS member of the GRS ring. If the system is not a part of a GRS ring, the system ID is always NONAME.

**Related Information:** Other Dataset information command: DSN

**/LOG**

**Type:** OMEGAMON INFO-line command

**Description:** Sends the current OMEGAMON REPORT log or the XLFLLOG to the printer. .LOG is the equivalent immediate command, which additionally offers the PUSH and POP arguments. /O is the alias for /LOG with the OUT argument.

**Related Information:** None

**.LOG**

**Type:** OMEGAMON Immediate command

**Description:** Sends the current OMEGAMON REPORT log or the XLFLLOG to the printer, or manipulates the status of the log.

**.LOGccc**

.LOG accepts the following arguments.

- **ON** Starts logging.
- **OFF** Stops logging.
- **OUT** Prints the current log and leaves it open. The command comments itself out to prevent the log from automatically resetting again on the next cycle.
**PUSH**   Saves the status of the log (ON or OFF) so that it can be restored when you execute `LOGPOP`. This capability allows you to manipulate the log’s status in screen spaces invoked by `.FGO` or `.SGO`, then return it to its original state after these screen routines are complete. A message will appear on the same line as the command indicating whether the log is active or inactive.

**POP**   Restores the log to the status in effect when you executed the last `.LOGPUSH`. A message will appear on the same line as the command indicating whether the log status is active or inactive.

**Note:** The Automatic Screen Facility (ASF) and the Timed Screen Facility (TSF) PUSH and POP automatically.

The log is activated and deactivated with the LOG keyword of the OPTN command. 
`/LOG` is the equivalent INFO-line command but without the PUSH and POP arguments.

**Related Information:** None

**LPAM**

<table>
<thead>
<tr>
<th>Caution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misuse of the LPAM command can jeopardize your system and the integrity of your data.</td>
</tr>
<tr>
<td>The LPAM and LPAMD commands are not supported at MVS level OS/390 release 2.4 and above. The function has been replaced by the MVS SETPROG LPA OPERATOR command.</td>
</tr>
</tbody>
</table>

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Adds, deletes, or lists directory members in the link pack area (LPA). The LPAM command can load and install a new version of an LPA member, erase members added to the LPA via the LPAM command, or list LPA directory information. It can load modules from any cataloged load library. The library will be dynamically allocated and freed during LPAM processing.

{-}LPAM  [MID] {PGM=cccccccc}  

[.DSN=aa.bb.cc]  
[.FORCE]  
[.NOALIAS]  
[.SMFDEL]  
[.SMFSYS=(ssss,...)]  
[.SVC=nnn]

- The required action character for the modify and delete options. It specifies that the command execute only once and changes to a comment character (>) after this execution.

A blank lists LPA directory information for a particular load module.
**M**

The modify option adds a new or updated version of an LPA load module to the LPA library. The load module is loaded into CSA (Common Storage Area) and an active LPA queue entry points to the new version. With XA and ESA, if the module is link-edited as RMODE=31, it will be loaded in ECSA (above the 16M line).

LPAM does not process the following modules:

- Modules link-edited in an overlay load structure
- SVCs (supervisor call instructions) type 1, 2, or 6

**Important**

See the Usage Notes which follow the description of the parameters before using the modify or delete options.

**D**

The delete option erases a modified LPA (MLPA) library member from the LPA active queue. Modules that are currently active (in use) are not deleted, unless you specify FORCE.

You may delete an LPA module that was loaded into the MLPA via IPL (using the MLPA= parameter in IEASYSFxx), as well as any modules installed via the LPAMM command. If the load module is found in the CSA, the virtual storage the module used is FREEMAINed.

**Important**

See the Usage Notes which follow the description of the parameters before using the delete option.

**PGM=**

Specifies the program module name to be processed. OMEGAMON processes this module along with all of its aliases (unless you use the NOALIAS parameter). If you specify a load module name only by an alias, the module is still processed.

**Parameters**

The following parameters are used with the M operand and/or the D operand as specified:

**DSN=**

(Modify option only) Specifies the load library where the new load module can be found.

**FORCE**

(Modify option) Allows a modification to take place even though the entry point of the module in the link pack directory does not match the entry point in the SVC table. Force is required for a new SVC if the SVC table entry point is not IGCERROR. Use this option only with extreme caution; a subsequent LPAMD will not be able to restore the system to its current state.

(Delete option) If a module has a use count greater than zero, FORCE together with LPAMD will delete the module.

If you delete a program with the FORCE parameter, you may cause problems with jobs that have LOADed the program at the time it is deleted.
### Usage Notes

You should be aware of the following before using the LPAM command:

- Candle strongly recommends that you use the LPAM command only during periods of low system activity. If problems occur with a new version of a module, you cannot remove it (via the LPAMD function) if there are users of the module at the time.

- If LPAMD is used to remove a module and its modified address has been saved by another program a program check may result.

- To use the modify option of LPAM on a module from a previous LPAMM now in CSA, use LPAMD first. Then use LPAMM to put the new module in place.

- If an invoking program obtains a module address and saves it away before LPAMM loads a new version of that module, the new version may never get control. Even though LPAMM loaded the module properly, the module can not be used if the invoking program continues to point to that module using the saved address.

- The entry point for a module loaded with LPAMM differs from the load point, because LPAMM inserts an identifying header before the module.

- LPAM supports SMF exits, type 3 and 4 SVCs, and Extended SVC Router modules. If an exit is not currently defined to SMF, it is added to the appropriate exit table. To determine what SMF exits are currently defined to SMF, use the .SMF immediate command.

---

**NOALIAS**  
(Modify option only) Specifies that OMEGAMON not process aliases. This parameter is for performance purposes, but you should only use it when it is certain that no alias entry points need to be processed concurrently, for example, when you install a new user SVC that has no aliases assigned to it.

If you use LPAMM with NOALIAS, it may create system problems if an alias references the module to be replaced. Use NOALIAS only when the module has no alias associated with it.

**SMFDEL**  
(Delete option only) SMFDEL specifies the deletion or inactivation of a System Management Facility (SMF) module from the appropriate SMF exit table. If you delete an SMF exit and do not specify the SMFDEL parameter, the SMF exit in the pageable LPA is installed into the SMF exit table entry, and that module becomes active. To delete or inactivate an SMF exit for a specific subsystem, use SMFDEL with the SMFSYS parameter specified.

**SMFSYS**  
(Modify or Delete options) Specifies the four-character subsystem name associated with the SMF exit. If you don’t supply this parameter, processing of an SMF exit is applied to every unique subsystem specified to SMF via the SMFPRM nn SUBSYS parameters.

For more information on the SMF subsystem see the IBM publication OS/VS2 System Programming Library: Initialization and Tuning Guide.

**SVC**  
(Modify option only) Specifies an SVC number, from 200–255, for a non-standard module name.
LPAM may not be used to change the following modules:

- **IGC0002H** For SVC28--reserved and not in use
- **IGC0001C** For ABEND SVC--can not be changed for system integrity reasons
- **IGC0101C** For ABEND SVC--can not be changed for system integrity reasons

LPAM will not successfully modify a module which must reside in the LPA directory. For example, CICS module DFHIRP must have an entry in the LPA directory. LPAM updates the LPA queue, but not the directory.

If you use the LPAMM command to add an SVC module for a new SVC and you subsequently delete it with the LPAMD command, an abend may occur. When you issue a subsequent SVC call for the deleted SVC, the entry point address in the SVC table is not valid, and an Fxx abend (for SVCs) or a 16D abend (for Extended SVC Routers) occurs. Since the SVC did not exist prior to the original LPAMM, the entry point in the SVC table cannot be restored via LPAMD.

Although LPAM does not test the link-edit or re-entrant/reusable attributes, you should always code modules installed into the LPA as re-entrant.

The LPAM command will not process SMF exits on MVS/ESA 5.1 and above.

LPAM does not support the alignment attribute.

**Example**

The following example is an example of an LPAM modify command:

```plaintext
>LPAMM PGM=IEFU83,DSN=SYS2.SMF.LOADLIB
>       >> OM8338 Modify Successful for Load Module IEFU83<<
```

**Note:** Since this example does not specify SMFSYS, all SMF system and subsystem IDs are modified.

**Related Information:** Other Program Library Facilities commands: ALIB and APFU

**LPARnn**

**Type:** OMEGAMON Immediate command

**Description:** Displays data about logical partitions and their management overhead.

**LPARnn**

where **nn** is the number of the logical partition. If a logical partition (**nn**) is not specified, data for all configured logical partitions is displayed. APF-authorization is required.

LPAR displays current information about all logical partitions defined for the processor complex. The information displayed includes:

- number of physical processors
- dispatch interval
number of configured partitions, if a single partition is specified

elapsed interval (The wall-clock elapsed time since the last screen refresh. Utilization statistics are for this period.)

name and number of the logical partition

status of the partition (Active or Inactive)

weight factor (In shared processor environments, this indicates the priority of this partition regarding access to CPU cycles. MIX in this field means processors in this logical partition have different weights.)

wait completion indicator (Yes or No)

CPU capping indicator (Yes or No)

number of logical processors

logical processor utilization (percent of time dispatched)

physical processor utilization for the partition, not including management overhead (percent of time dispatched)

physical processor overhead (management overhead for this partition)

total dispatch time for the partition (effective time + management overhead time)

The following is an example of LPAR command output without an operand:

<table>
<thead>
<tr>
<th>Name</th>
<th>Number</th>
<th>Stat.</th>
<th>Wts.</th>
<th>Wait</th>
<th>Cap</th>
<th>#LP</th>
<th>LCPD%</th>
<th>PCPD%</th>
<th>OVHD%</th>
<th>Dispatch time</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVSA</td>
<td>01</td>
<td>A</td>
<td>600</td>
<td>NO</td>
<td>NO</td>
<td>4</td>
<td>53.69</td>
<td>53.69</td>
<td>1.07</td>
<td>00.00.02.847</td>
</tr>
<tr>
<td>MVSB</td>
<td>02</td>
<td>A</td>
<td>050</td>
<td>NO</td>
<td>YES</td>
<td>2</td>
<td>9.34</td>
<td>4.67</td>
<td>1.12</td>
<td>00.00.00.217</td>
</tr>
<tr>
<td>MVSG</td>
<td>03</td>
<td>A</td>
<td>240</td>
<td>NO</td>
<td>NO</td>
<td>3</td>
<td>27.68</td>
<td>18.63</td>
<td>1.35</td>
<td>00.00.00.965</td>
</tr>
<tr>
<td>MVSH</td>
<td>* 04</td>
<td>A</td>
<td>050</td>
<td>NO</td>
<td>YES</td>
<td>2</td>
<td>10.37</td>
<td>5.19</td>
<td>2.13</td>
<td>00.00.00.241</td>
</tr>
<tr>
<td>VMES</td>
<td>05</td>
<td>A</td>
<td>060</td>
<td>NO</td>
<td>NO</td>
<td>2</td>
<td>10.59</td>
<td>5.29</td>
<td>1.56</td>
<td>00.00.00.246</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>00.00.00.302</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>87.47</td>
<td>9.53</td>
<td></td>
<td>00.00.04.516</td>
</tr>
</tbody>
</table>

The current logical partition is marked with an asterisk (*) to the right of its name.

The line containing the logical partition name PHYSICAL displays only logical partitioning management overhead which cannot be attributed to a particular partition.

LPAR takes two cycles to begin displaying data. One cycle is required for initialization. If you are in TSO mode, enter the command (first cycle), then press Enter again (second cycle). Any subsequent cycles will update the data with current values.

Related Information: Other System Information Immediate command: MDFD
LPAT

**Type:** OMEGAMON Minor command

**Description:** Displays list of libraries concatenated to SYS1.LPALIB. Each line of output contains one dataset name found in the linklist concatenation. This command is designed to work on an unmodified IBM BLDL system; the results are unpredictable if you have another vendor product or usermod that alters the way BLDL is used.

**Related Information:** Minor of: SYS

LRPG

**Type:** OMEGAMON Minor command

**Description:** Displays performance group number for submitting logon ID. LRPG is not valid for started tasks. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

LSCR

**Type:** OMEGAMON Immediate command

**Description:** Loads screen space members from the screen library to main storage. You can make screen spaces more available and more easily fetched by loading them into main storage with LSCR. For example, if a disk is not available, you can continue to invoke the screen spaces that you loaded into main storage with LSCR.

```
LSCR  cccccccc  cccccccc  ...  cccccccc
```

The variables cccccccc are screen space names. Specify screen space member names starting in column 8. You can load as many members as can fit on the input line. For example, the next command asks OMEGAMON to load screen spaces ZZ1, ZZ2, and ZZ3 from the screen space library KOMPROC to main storage.

```
LSCR  ZZ1 ZZ2 ZZ3
```

**Related Information:** None

LSCT

**Type:** OMEGAMON Minor command

**Description:** Dumps logical swap control table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, MCT, OUCBnn, OUXBnn, PAREnn, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST
**LSFR**

**Type:** OMEGAMON Minor command  
**Description:** Displays number of real frames allocated to logically swapped address spaces.  
**Related Information:** Minor of: SYS

**LSNW**

**Type:** OMEGAMON Minor command  
**Description:** Displays number of logically swapped address spaces due to waits that are not terminal waits.  
**Related Information:** Minor of: SYS

**LSTW**

**Type:** OMEGAMON Minor command  
**Description:** Displays number of logically swapped address spaces due to terminal input or output waits.  
**Related Information:** Minor of: SYS

**LTAPxxx**

**Type:** OMEGAMON Minor command  
**Description:** Displays statistics about magnetic tape connected by LCU xxx (XA). This minor command selects any device of the indicated type that was assigned to Logical Control Unit (LCU) xxx, where xxx is a hexadecimal LCU ID. The system assigns these LCU numbers during the IOCDS generation.  
**Related Information:** Minor of: STAT  
Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxx, LUR xxx, PDSK ccccc, PNDnnn, PTAP ccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxx, STAPxxx, SURxxx, and XDSK

**LUIC**

**Type:** OMEGAMON Minor command  
**Description:** Displays unreferenced interval count and threshold for logical swap think time adjustment. This command displays current system-wide high UIC, as well as the happy values used to adjust the system think time, which the THNK minor of SYS displays. This command shows how the current values affect SRM adjustments to the system.  
**Related Information:** Minor of: SYS
Other SRM information commands: CPGR, CWSS, LAFQ, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

LUR xxx

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about unit record devices connected by LCU xxx (XA). This minor command selects any device of the indicated type that was assigned to Logical Control Unit (LCU) xxx, where xxx is a hexadecimal LCU ID. The system assigns these LCU numbers during the IOCDS generation.

**Related Information:** Minor of: STAT Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, PDSK cccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK
# M Commands and Keywords

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<td>MSWP</td>
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<td>MTA</td>
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Commands and Keywords

MCHN

Type: OMEGAMON Immediate command (Authorized)

Description: Scans tables in the common area or in the OMEGAMON private storage area for a specified string of data. (If you want to search private storage areas other than OMEGAMON storage areas, use the XMCH command.)

MCHN scans the elements of a table for a string of hex or character values. If the scan is successful, OMEGAMON displays the table element that contains the string. Use MCHN to examine:

- Common Storage Area (CSA)
- System Queue Area (SQA)
- nucleus

MCHN addr,string,olen,chain,dlen

addr The address of the first table element that OMEGAMON scans.

You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.

An anchor is the base address of an address specification. It can be:

- absolute The hexadecimal address.
- symbolic Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

- offset A plus sign (+) or minus sign (-), followed by a hexadecimal number. This modifier specifies a location at a known offset (positive or negative) from the anchor address.
- indirect Use a question mark (?) as the symbol for 31-bit addressing. Use a percent sign (%) as the symbol for 24-bit addressing. This modifier indicates that the location pointed to is itself an address.

- B or b hex and character (default)
- C character only
- X hex only
string  The hex string OMEGAMON uses for the scan. If you enclose this argument in single quotes, OMEGAMON assumes it is a character string.

OMEGAMON interprets two single quotes (' ') within a character string as a single quote ('').

olen  The offset (in hex bytes) to the string in the table element; the comparison starts at this point. You may precede olen with a plus sign (+) or a minus sign (-).

chain  The offset (in hex bytes) to the chain pointer (the location in the table element that contains the address of the next table element). You may precede chain with a plus sign (+) or minus sign (-).

dlen  The number of bytes (up to eight hex digits) that OMEGAMON displays if the scan is successful. The display starts at the beginning of the string. The default is 16 (X'10') bytes.

Make sure that addr is the starting point of a table element. The address at addr + chain points to the next table element. The scan ends when the value at addr + chain is one of the following:

- 0
- -1
- addr (the table is a ring)

The next screen display shows a typical MCHN command.

```
MCHN AAB6C8,D6C30199,8,4

Addr=007DA000
```

In this example, MCHN scans a table that starts at location AAB6C8 and looks for the string D6C30199 that begins at the eighth byte of the table element; the address of the next table element is at offset 4. By default, this command displays 16 bytes of the table element in hex and character notation.

The following output appears if the scan is successful.

```
MCHN AAB6C8,D6C30199,8,4
+ 0000 E2E2C3E3 00000000 D6C30199 00000000 *SSCT OC r *
```

**Related Information:** Other Storage Scan commands: MSCN, XMCH, and XMSC
MCPUnn

**Type:** OMEGAMON Immediate command

**Description:** Displays CPU utilization greater than \( nn\% \) by address space, performance group, and systemwide. The following figure displays output for the MCPU command with APF-authorization.

The following figure displays MCPU command output for logical partitioning mode operation.

The following figure displays MCPU command output on a system with active Enclaves work.
OMEGAMON alters the high end of the scale to the first value large enough to depict the address space, performance group, or system with the largest CPU utilization percentage.

**Note:** OMEGAMON must be APF authorized for the CPU percentage to appear.

The POPT command can be used to set CPU normalization and scaling preferences for MCPU. For further information, see POPT.

**Related Information:** Other CPU Utilization command: SPCUnn

**MCT**

*Type:* OMEGAMON Minor command

*Description:* Dumps SRM Storage Management Control Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBXxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICT, LCCA*n*, LSCT, OUCBnn,
Commands and Keywords

OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMP1, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

MCTL

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Specifies CPU time limit for an address space that you specify on the major command. MCTL is authorized because it circumvents any job class restrictions. You can use MCTL to prevent the abend of a critical job if it takes more CPU time than was specified. MCTL may result in CPU time limits that are rounded up (by one second) from the user specification, due to the conversion between real time and time of day clock units.

\[ \{-\} MCTL \{=|+|-\} \{nnnn\} \{H|M|S\} \]

- The required action character. The hyphen changes to a comment character (>) after the command executes.
- = Sets the CPU time limit equal to the value specified by the nnnn argument.
- + Adds the value nnnn to the CPU time limit.
- - Subtracts the nnnn value from the CPU time limit.
- nnnn Decimal value to be added/subtracted/set.
- H Specifies hours as the unit of time.
- M Specifies minutes as the unit of time.
- S (Default) Specifies seconds as the unit of time.

For example:

\[ \text{\textgreater MCTL=23 H} \]
\[ \text{\textgreater TIME LIMIT IS NOW 23:00 HR} \]

**Related Information:** Minor of: Address space majors. See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Minor--Authorized Commands: MNSW, MSWP, SWPI, SWPO, TADR, and TSNM

MDEF

**Type:** OMEGAMON Immediate Command (Authorized)

**Description:** Defines names for addresses. The MDEF command labels an address in storage with a name so that you do not have to repeatedly enter complex or frequently used storage addresses with commands such as, for example, MCHN, MLST, MZAP, XMLS, and XMZP.

\[ \text{MDEFcc addr,name} \]
Consider the following points:

- **OMEGAMON** saves the names you define in a table, but does not save the table from session to session. Save address names that you want to use from session to session in a screen space.

- **OMEGAMON** provides a table of predefined names, but if you define an address with one of the predefined names, **OMEGAMON** uses the address you define during the session.

- **OMEGAMON** places a comment character (>) in front of MDEF after it executes.
In the next screen display, MDEF gives the name XYZ to the address at offset X’ 4A’ in the CSA.

MDEF  CSA+4A, XYZ

**Related Information:** None

**MDFD**

**Type:** OMEGAMON Immediate command

**Description:** Displays data about Amdahl Multiple Domain Facility (MDF) domain nn or all domains.

MDFD[nn]

APF-authorization and domain authorization at domain startup are required. MDFD displays current information about one or more MDF domains on an Amdahl CPU. The information displayed includes:

- elapsed collection interval
- scheduling parameter
- number of time slices
- name and number of domain
- domain maximum percentage
- domain minimum percentage
- domain target percentage
- current dispatch percentage
- internal utilization percentage (available on all 59xx series CPUs or 58xx CPUs with the FE key on)
- adjusted target percentage (available on all 59xx series CPUs or 58xx CPUs with the FE key on)
- average time slice length

MDFD takes two cycles to begin displaying data because one cycle is required for initialization. If you are in TSO mode, enter the command (first cycle), then press Enter again (second cycle). Any subsequent cycles will update the data with current values.

Consult the Amdahl MDF Concepts manual and related documentation for information pertaining to hardware configuration.
The following is an example of the MDFD command output with no nn operand:

```
MDFD     Interval: 05.047 sec    Sched. Parm: 1    Time Slices: 129
+       __Name__ Number  Max   Min   Trg    Disp%    Util%    ATrg%   Avg Slice
+       CANDLE1 * 01    100     5    25    53.40    79.37    40.98    20.9 ms
+       CANDLE2    02    100     5    25    46.01    72.41    35.00    18.0 ms
+       ** MDFWATCH is active on: CPU0 CPU2 **
```

The current domain is marked with an asterisk (*) next to its name. The last line of the display indicates whether MDFWATCH is active.

Descriptions of data appearing on this display follow:

- **Interval**
  Elapsed time since the last request for MDF information. This is the INT time in dedicated mode, or the time since the last Enter key in CMS mode.

- **Sched. Parm**
  Scheduler parameter assigned at domain configuration time. This determines how often a domain gains control of the CPU. Valid values are in the range 1–9, depending on the processors and their installed features. The default is 3. Lower values reduce the frequency of control and increase the length of the time slice.

- **Time Slices**
  Number of times domains were dispatched during this interval.

- **Name**
  Name of the domain assigned at MDF configuration time. An asterisk (*) appears to the right of the domain where the MDFD command was invoked.

- **Number**
  Number of the domain assigned at MDF configuration time. The value range for this number is 0–16.

- **Max**
  Maximum percentage of available CPU cycles. The domain cannot receive more than this percentage of the available CPU cycles.

- **Min**
  Minimum percentage of available CPU cycles. The domain must receive at least this percentage of available CPU cycles.

- **Trg**
  Target percentage of available CPU cycles. This is the percentage of CPU cycles that you would like the domain to receive.

- **Disp%**
  Percent of time that this domain was dispatched relative to all domains in the complex during the previous interval.

- **Util%**
  Percent of time that the domain used the CPU while it was dispatched. Available on all 59xx series CPUs and 58xx CPUs with the FE key on. If the FE key is not on, the Util% field contains n/a.

- **ATrg%**
  Adjusted target CPU allocation percentage. This is the percentage of CPU cycles that were available to this domain during the interval. Available on all 59xx series CPUs and 58xx CPUs with the FE key on. If the FE key is not on, the ATrg% field contains n/a.

- **Avg Slice**
  Average length of a time slice (in milliseconds) for this domain during this interval.

- **MDFWATCH is active on**
  Status of the MDFWATCH (also known as MDTA) facility. Names the processors for which MDFWATCH is active, if any. For a description of this facility, consult the Amdahl MDF Concepts manual.
The POPT command can enable or disable processing of MDF data in an AMDAHL environment. For further information, see POPT.

Related Information: Other System Information Immediate Command: LPARnn

.MFY

Type: OMEGAMON Immediate command

Description: Simulates the MVS MODIFY command. OMEGAMON simulates the MVS MODIFY command. Therefore, the target is the current OMEGAMON address space. .MFY allows you to start multiple OMEGAMON sessions in a single address space. The .MFY command is valid only in dedicated mode.

.MFY S CN,UNIT=ccc,PROD=cccccccc

UNIT= Specifies the device number.
PROD= Specifies the name of the OMEGAMON product module. Possible values are:
- KOMMV210 (for MVS/XA systems)
- KOMMV310 (for MVS/ESA™ 3.n systems)
- KOMMV410 (for MVS/ESA 4.n systems)

For example, the next command shows that an additional dedicated session is to be started at address 577.

.MFY S CN,UNIT=577,PROD=KOMMV310

The UNIT parameter is required to start the session; the command also accepts the other parameters associated with starting a dedicated OMEGAMON session.

Note: While .MFY sets up multiple independent sessions, the .CN command handles multiple terminals connected to a single session.

Related Information: None

.MIN

Type: OMEGAMON Immediate command

Description: Lists all minor commands for the preceding major command. This command only applies to the major command that immediately precedes it. .MIN displays the minors in alphabetical order.

[H].MIN [nnn|c1 c2]

(blank) Without operands, .MIN displays all minor commands of the major.

H The optional label H displays one-line help information for each of the minor commands. The following arguments allow you to limit the help display and avoid scrolling down to see the desired help.
n
nnn  Skips the first nnn minor commands.
c1 c2  Specifies a single character string or a range of minors from c1 to c2 for the help display. A character string can be 1–4 characters long.

The next example displays all minor commands of the DISK major command.

**DISK**

**.MIN**

.MIN comments itself out after execution.

**Related Information:** None

**.MJ**

**Type:** OMEGAMON Immediate command

**Description:** Lists all major and immediate OMEGAMON commands.

**H.MJ cc**

The optional label H displays a one-line help text for each command. The variable cc specifies one of the following optional 2-character group names.

<table>
<thead>
<tr>
<th>cc</th>
<th>Command Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>all immediate and major commands</td>
</tr>
<tr>
<td>AS</td>
<td>address space commands</td>
</tr>
<tr>
<td>CN</td>
<td>console commands</td>
</tr>
<tr>
<td>DM</td>
<td>domain commands</td>
</tr>
<tr>
<td>DS</td>
<td>disk commands</td>
</tr>
<tr>
<td>DU</td>
<td>dump commands</td>
</tr>
<tr>
<td>DV</td>
<td>device commands</td>
</tr>
<tr>
<td>DX</td>
<td>DEXAN commands</td>
</tr>
<tr>
<td>EX</td>
<td>exception analysis commands</td>
</tr>
<tr>
<td>ME</td>
<td>memory commands</td>
</tr>
<tr>
<td>PA</td>
<td>paging commands</td>
</tr>
<tr>
<td>PC</td>
<td>physical channel commands</td>
</tr>
<tr>
<td>PG</td>
<td>performance group commands</td>
</tr>
<tr>
<td>PR</td>
<td>performance group period commands</td>
</tr>
<tr>
<td>SA</td>
<td>swap dataset commands</td>
</tr>
<tr>
<td>ST</td>
<td>resource measurement facility (RMF) data</td>
</tr>
<tr>
<td>SY</td>
<td>system information commands</td>
</tr>
<tr>
<td>TA</td>
<td>tape commands</td>
</tr>
</tbody>
</table>

For example, the following command lists all device major and immediate commands.

**.MJ DV**

**Related Information:** None
Commands and Keywords

.MJC

**Type:** OMEGAMON Immediate command  
**Description:** Lists all major commands.

```
H.MJCcc
```

The optional label H displays a one-line help text for each command. The variable cc is an optional group name. See the .MJ command for a list of these groups.

**Related Information:** None

.MJ

**Type:** OMEGAMON Immediate command  
**Description:** Lists all immediate commands.

```
H.MJcc
```

The optional label H displays a one-line help text for each command. The variable cc is an optional group name. See the .MJ command for a list of these groups.

**Related Information:** None

MLIB

**Type:** OMEGAMON Minor command  
**Description:** Specifies the INSP module libraries. You can use MLIB to update the list of libraries used to resolve CSECT maps for programs. Several conditions must be met for OMEGAMON to resolve CSECTs:

- One or more libraries must be specified in the library list.
- One of the libraries must contain a load module that matches the name of the selected load module.
- The directory characteristics must match the CDE/LPDE of the in-storage module.
- The library load module must not be marked not-editable.

If any one of these conditions is not met, OMEGAMON treats the whole load module as one CSECT named $PRIVATE.

```
MLIB ADD(cccccccc,...) DEL(cccccccc,...Inn,...)
```

**ADD(cccccccc,...)**  
Adds one or more libraries (cccccccc) to the list by dataset name.

**DEL(cccccccc,...Inn,...)**  
Deletes one or more libraries from the list by name (cccccccc) or number (nn). Dataset numbers appear when you enter MLIB without any parameters.

**Related Information:** Minor of: INSP  
Other Applications Tuning minor: ICU
**MLST**

**Type:** OMEGAMON Immediate Command (Authorized)

**Description:** Displays bytes of memory from the common area or the OMEGAMON private storage area.

**aMLSTc addr,dlen**

- **a** The optional K in the label position requests a display showing the fetch protection key for each virtual block in the range specified and whether fetch protection is ON or OFF.

- **c** Specifies the format of the output.
  - B or b hex and character (default)
  - C character only
  - X hex only

**addr** The first address of storage that OMEGAMON displays.

You can specify, modify, or pre-define an address (addr) with MDEF for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.

An anchor is the base address of an address specification. It can be:

- **absolute** The hexadecimal address.
- **symboli** Up to eight alphanumeric characters, including @, #, and $.

**c**

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

- **offset** A plus sign (+) or minus sign (-), followed by a hexadecimal number. This modifier specifies a location at a known offset (positive or negative) from the anchor address.

- **indirec** Use a question mark (?) as the symbol for 31-bit addressing. Use a percent sign (%) as the symbol for 24-bit addressing. This modifier indicates that the location pointed to is itself an address.

**dlen** The number (up to eight hex digits) of bytes that OMEGAMON displays. The default is 16 (X' 10') bytes.

In the following screen display, MLST lists 32 (X' 20') bytes starting at address 1EB0 in character format.
In the next screen, MLST lists 16 (X’10’) bytes starting at address FF32D6 in both hex and character formats.

```
MLST  FF32C1+15,10                                 Addr= 00FF32D6
+0000  20280010 A18800F9 82F000FF 20400000   *....*h.9b0... ..*
```

The next example shows MLST with K in the label field, which displays fetch protection information.

```
XMLST  7EF000,4000                                  Addr= 007EF000
  + Virtual Block Number: 07EF000   KEY: 5 Fetch Protection: OFF
  + Virtual Block Number: 07F0000   KEY: 1 Fetch Protection: ON
  + Virtual Block Number: 07F1000   KEY: 1 Fetch Protection: OFF
  + Virtual Block Number: 07F2000   KEY: 0 Fetch Protection: OFF
```

**Related Information:** Other Storage Display command: XMLS

**.MMA**

**Type:** OMEGAMON Immediate command

**Description:** Lists all major commands for a minor command.

**.MMA cccc**

The variable `cccc` is a minor command.

**Related Information:** None

**MNSW**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Marks an address space specified on the major command nonswappable by the SRM.

**Warning**

Marking address spaces non-swappable interferes with SRM’s control of your system.

OMEGAMON uses a standard SRM interface to mark the current job step nonswappable. For example, to mark job PAYROLL nonswappable, enter:

```
JOBN PAYROLL
-MNSW
```

The hyphen is required.

**Related Information:** Minor of: address space majors. See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Minor--Authorized Commands: MCTL, MSWP, SWPI, SWPO, TADR, and TSNM
MNT

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays mount messages that require operator action. MNT has no arguments. For example, to display mount messages for console 4, enter the following command:

```
CONS04  Console 660 (ID=4)
  mnt
  + 2000 09.07.47 JOB 2225 *13 IEC701D M 370, VOLUME TO BE LABELED CA1759
```

**Related Information:** Minor of: CONS and CONU

Other Console-Related minors: ACTN and LINE

.MOD

**Type:** OMEGAMON Immediate command

**Description:** Shows OMEGAMON module names and addresses.

**.MODc**

The optional suffix A (.MODA) lists the module names in alphabetical order. This command provides debugging information, including module names and start addresses. If OMEGAMON detects a program check, these names and addresses are useful to Candle Support Services.

**Related Information:** None

MODnnnn

**Type:** OMEGAMON Minor command (Authorized)

**Description:** See MODS.

**Related Information:** None

MODS

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays information about the modules currently loaded into the user’s jobpack area. The following screen display shows a typical example of the MODS command.

```
  PEEK  USER01  ASID=46, collected at 15:39:39
mods
+  Module    Entry    Length  Users  Attributes
+  AUTHMOD   00073204  02FAF8      1  RENT, REUS, AUTH, AC=1
+  PAY1      0003D140  032D90      0  RENT, REUS, AUTH, AC=1, ALIAS(PAYMOD01)
+  ERROR    000A7128  000890      1  RENT, REUS
+  ISPTCM   000093E8  000418      1  RENT, REUS, AUTH
```
The name of each module currently in the user’s jobpack area appears along with its entry point address, length, use count, and load module attributes. For the definition of the attributes, see the IBM MVS Linkage Editor Manual.) You can use the entry point address with the cross-memory list or zap (XMLS or XMZP) commands.

To suppress the display of the first nn or nnn modules, you can optionally specify a two- or three-digit number in the operand field of MODS (MODSnn or MODnnn). This is useful if all of the names do not fit on one screen.

**Related Information:** Minor of: PEEK

Other Authorized Minors that Collect Data about Address Spaces: AMAP, DATA, DDNS, JOBS, STEP, SUBP, and TCBS

**MONJnn**

**Type:** OMEGAMON Minor command

**Description:** Selects job cccccccc or nn (the DEXAN slot number) for DEXAN monitoring (at first execution) and (after first execution for this job) displays a plot for that jobname.

The first execution of the MONJ command selects a job for monitoring with DEXAN. Subsequent executions display a plot for the monitored job. Therefore, the MONJ command combines the functions of the ASEL and PLTJ commands.

The MONJ command is easier to use than the ASEL and PLTJ commands. Since it is not commented out after the first execution, it can display plot output on subsequent executions without additional keystrokes. DEXAN assigns a DEXAN slot number to each job selected with MONJ. The first job selected gets number 01, the second 02, and so on. Once a DEXAN job number is assigned, the ADEL, PLTJ, PCTJ, and MONJ commands let you enter either the DEXAN job number or the job name as an operand, for example, MONJ JES2 or MONJ3. To use MONJ to select a job, first enter the DEX and BEGN major commands, then enter the MONJ command with the name of job you want to monitor. For example:

```plaintext
DEX
BEGN
MONJ JOB1
```

results in:

```plaintext
DEX >> DX0000 V750 running. Cycles=99 STIM=2.2 Elap=1.03MN <<
>BEGN >> DX1000 The Data Collector Started. Workarea size= 38512 Bytes <<
MONJ01 JOB1 >> DX1800 Entry added <<
```

In this example, DEXAN has sampled a total of 99 times (**Cycles**) at a rate of 2.2 per second (**STIM**), and 1.03 minutes have elapsed since DEXAN started sampling. DEXAN assigns JOB1 DEXAN slot number 01. As you can see, MONJ is not commented out.
The next time MONJ is executed for JOB1, DEXAN displays a plot for the monitored job, as shown:

<table>
<thead>
<tr>
<th>MONJ01 JOB1</th>
<th>%</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Using CPU</td>
<td>5.6</td>
<td>---</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>+ Waiting for CPU</td>
<td>33.0</td>
<td>---------------</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>+ Private Page-in Wait</td>
<td>20.4</td>
<td>----------</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>+ Control Unit 25X Queued</td>
<td>15.0</td>
<td>------ &gt;</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>+ Disk MVS307 0735 Active</td>
<td>14.9</td>
<td>------ &gt;</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** You may have noticed that individual wait states with a value of less than 5% are not shown. By default, DEXAN excludes from the display those wait reasons that account for less than 5% of the total wait time. You can use the THRS command to adjust this threshold. Also, note that the percent column of the display can achieve a total value that is greater than 100%. Such a total value represents workloads that perform multiple tasks concurrently or have detectable multi-tasking execution states.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSRnnnn, RSFnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

**MPAGnn**

**Type:** OMEGAMON Immediate command

**Description:** Displays paging rates by address space, performance group, and page dataset > nnn pages/second. In MVS/SP 4.2 and above, the display output is based on the page fault rate for address spaces, performance groups and page datasets.

When running in goal mode under MVS/SP 5.1 and above, no data is available for performance groups.

OMEGAMON monitors the overall paging of the system as well as paging at the address space level. Page-ins are strictly on demand, that is, through page faults. Page-outs result from real storage management attempting to maintain an available frame list. OMEGAMON alters the high end of the scale these commands produce to the highest page rate of any address space, performance group, or page set they sample. In MVS/SP 4.2, the SRM block-paging statistic counts page faults instead of page-ins. A page fault can represent the page-in of a single page or the page-in of a block of pages.
MPAG\textit{nn} differs from MPG\textit{Inn} in that it displays a total of both page-ins \textit{and} page-outs. The following is an example of MPAG output with the threshold set at 3 pages/second:

\begin{verbatim}
MPAG03 | Task | Pg/s 0_4_8_160 | Perf Grp | Pg/s 0_4_8_160 | Volume | Pg/s 0_4_8_160
+      | CLMENU | .1 > . . . . | Per. 5 | 6.1 > . . . . | SYS022 | .0 > . . . .
+      | Tot Dmd: | .1 > . . . . | | | SYS023 | .0 > . . . .
+      | | | | | SYS024 | .0 > . . . .
+      | | | | | SYS025 | 22.3 ----> . .
+      | | | | | SYS026 | 22.3 --> . .
+      | | | | | SYS027 | 22.3 ----> . .
+      | | | | | TOTAL | 67.1 ----> . .
\end{verbatim}

\textbf{Related Information:} Other Paging command Mulitplot: MPG\textit{Inn}

\textbf{MPG\textit{Inn}}

\textbf{Type:} OMEGAMON Immediate command

\textbf{Description:} Displays page-ins by address space, performance group, and page dataset > \textit{nn} page-ins/second. In MVS/SP 4.2, the display output is based on the page fault rate for address spaces, performance groups and page datasets. OMEGAMON monitors the overall paging of the system as well as paging at the address space level. Page-ins are strictly on demand, that is, through page faults. OMEGAMON alters the high end of the scale these commands produce to the highest page rate of any address space, performance group, or page set they sample. In MVS/SP 4.2, the SRM block-paging statistic counts page faults instead of page-ins. A page fault can represent the page-in of a single page or the page-in of a block of pages.

The following is an example of MPGI output with the threshold set at 3 pages-ins/second:

\begin{verbatim}
MPGI03 | Task | Pg/s 0_4_8_160 | Perf Grp | Pg/s 0_4_8_160 | Volume | Pg/s 0_4_8_160
+      | T987R | 16.1 --> . . . | T S O | 59.7 --> . . | MVS301 | .0 > . . . .
+      | Tot Dmd: 65.8 ----> . . | | | | MVS302 | .0 > . . . .
+      | | | | | DLIB01 | 19.5 --> . . .
+      | | | | | MVS303 | 46.3 --> . . .
\end{verbatim}

\textbf{Task}

Shows paging by task or address space. The display includes all tasks whose page-in rate exceeds the specified threshold \textit{nn} (03 in the example). It also contains a Tot Dmd field that displays the total page-in rate for the entire system. Page-in rates for tasks do not include any page transfers that occur due to swapping operations.
MSCN

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Scans storage for a string of data and displays the location. MSCN scans the address space in which OMEGAMON resides for a string of hex or character values. If the scan is successful, OMEGAMON displays the string.

**MSCN**

`addr,string,slen,dlen`

**c** The format of the output.

- **B or b** hex and character (default)
- **C** character only
- **X** hex only

**addr** The first address of storage that OMEGAMON scans.

You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.

An anchor is the base address of an address specification. It can be:

- **absolute** The hexadecimal address.
- **symbolic** Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

---

**Perf Grp** Shows paging by performance group. The PGN command allows you to assign a descriptive name to a performance group number. For each group of users, MPGI calculates the paging rate as for address spaces, but on a group basis. Any group that exceeds the **nn** threshold specified by the MPGI**nn** appears and is plotted. This zone shows demand paging only, not paging due to swapping. Performance group data will not be displayed in goal mode.

**Volume** Shows total paging systemwide. This zone shows page-ins and page-outs. If any one page dataset exceeds the threshold, all page datasets appear. Since paging due to swapping is usually a large component of the paging load, the first two zones rarely agree with the third, even if you specified MPGI00.

**Related Information:** Other Paging command Multiplot: MPAGnn
**offset**  
A plus sign (+) or minus sign (-), followed by a hexadecimal number.  
This modifier specifies a location at a known offset (positive or negative) from the anchor address.

**indirect**  
Use a question mark (?) as the symbol for 31-bit addressing.  
Use a percent sign (%) as the symbol for 24-bit addressing.  
This modifier indicates that the location pointed to is itself an address.

**string**  
The hex string OMEGAMON uses for the scan. If you enclose it in single quotes, OMEGAMON assumes it is a character string.  
OMEGAMON interprets two single quotes (‘ ’) within a character string as a single quote (’).

**slen**  
The number (up to eight hex digits) of bytes that OMEGAMON scans. The default is 256 (X' 100') bytes.

**dlen**  
The number (up to eight hex digits) of bytes that OMEGAMON displays if the scan is successful. The display starts at the beginning of the string. The default is 16 (X' 10') bytes.

In the next screen display, MSCN scans the first 1000 bytes of the TIOT entry for the character string OMHELP and displays 14 hex bytes starting at that point. The display is in both hex and character formats.

```
MSCN 10??+4??+C?, 'OMHELP', 1000, 14
```

Typical output of the MSCN command is shown here.

```
MSCN 10??+4??+C?, 'OMHELP', 1000, 14
Addr=0061701C
  + 0000  D6C3C8C5 D3D74040 60BCA000 80001B00  *&PRO.HELP  -.......*
  + 0010  14010100                             *....            *
```

**Related Information:** Other Storage Scan commands: MCHN, XMCH, and XMSC

**MSWP**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Marks an address space specified on the major command swappable by the SRM. The SRB routine uses a standard SRM interface to mark the current job step as subject to swapout. For example, to mark job PAYROLL swappable, enter

```
JOBN PAYROLL
-MSWP
```

The hyphen is required.

**Related Information:** Minor of: Address space majors. See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space Minor--Authorized Commands: MCTL, MNSW, SWPI, SWPO, TADR, and TSNM

MTA

Type: OMEGAMON Immediate command

Description: Displays or modifies the missing task table. The MTA command lets you define the jobs you want included in missing task analysis, a function of exception analysis. It uses the multiline input facility to make it easy for you to change values. The following considerations apply to the multiline input facility:

- You can modify any display line that begins with a colon in column 1.
- Blanking out fields has no effect; OMEGAMON redispays the line on the next cycle.
- To change a setting, type over the displayed value and press Enter.
- OMEGAMON marks modified entries with one of the following words:
  - ADDED
  - UPDATED
  - DELETED

OMEGAMON treats commas, blanks, and parentheses in command syntax as delimiters.

If you issue the MTA command without any operands or keywords, OMEGAMON displays the entire missing task table (or the first 100 entries, if the table is larger than that). The following figure shows a typical missing task table.

```
#   TASK NAME    STATE
  1   TSO        AUTO
  2   RMF        AUTO
  3   JES2       AUTO
  4   JES3       AUTO
  5   IMS        AUTO
  6   CICS       AUTO
  7   NET        AUTO
  8   TCAM       AUTO
  9   VTAM       AUTO
+ There are 9 entries defined in the missing task table
```

The following fields appear on the MTA display:

- **#**: Entry number in the missing task table. Entry numbers are for table display purposes only and cannot be modified.
- **TASK NAME**: Name of the job for which missing task analysis is active.
- **STATE**: State of missing task analysis for the job. Valid values are AUTO or A, ON, and OFF.
If you issue the MTA command with the ADD operand, you can add one or more entries to the missing task table. The syntax is as follows:

**MTA ADD (cccccccc,state)**

*cccccccc* Specifies a jobname.

*state* Specifies the state of missing task analysis for the job name. Possible values are as follows:

- **AUTO** or **A**: Warns when the task is missing if it has been active since OMEGAMON startup.
- **ON**: Warns when the task is missing.
- **OFF**: Turns off the missing task analysis for that task.

The following figure shows typical output from the MTA ADD command.

```
>MTA ADD (OMEGAMON,ON),(DELTAMON,ON),(DB2,ON)
+ 10   OMEGAMON     ON      * ADDED *
+ 11   DELTAMON     ON      * ADDED *
+ 12   DB2          ON      * ADDED *
+Entry numbers may have been shifted because of ADD/DEL
+ #   TASK NAME    STATE
+  1   TSO          AUTO
+  2   RMF          AUTO
+  3   JES2         AUTO
+  4   JES3         AUTO
+  5   IMS          AUTO
+  6   CICS         AUTO
+  7   NET          AUTO
+  8   TCAM         AUTO
+  9   VTAM         AUTO
+ 10   OMEGAMON     ON
+ 11   DELTAMON     ON
+ 12   DB2          ON
+ There are 12 entries defined in the missing task table
```

If you issue the MTA command with the DEL operand, you can delete one or more entries from the missing task table. The syntax is as follows:

**MTA DEL**

*[cccccccc][ENTRY(n1,n2,...nn1 : n2)][ALL]*

*cccccccc* Specifies a jobname. You can specify a list of jobnames if you separate each name with commas or blanks.
MVFAxx

**Type:** OMEGAMON Immediate command

**Description:** Reports on vector affinity time, where xx refers to vector utilization. The MVFAxx command uses the same scaling factors as the MCPU command. Thus, it is valid to visually compare the bar graph representing TCB Vector Utilization (TVU) from a MVFU display, and the bar graph representing TCB CPU utilization (TCB) from a MCPU (or MVFC) display. However, this might also mean that the SYSTEM scaling factor used for a MVFU display is 0-300% even though the TVU value is less than 100%. The output of the MVFA command is similar to the output of the MVFU command but based on Facility affinity rather than vector utilization.

The output of MVFAxx is shown below:

<table>
<thead>
<tr>
<th>MVFA05</th>
<th>TASK</th>
<th>VFA%</th>
<th>PERF_VFA %</th>
<th>SYSTEM %</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>SNETVA 6.0 &gt; . . . . .</td>
<td>PERF 4 8 &gt; . . . . .</td>
<td>0 100</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>CSLOAD 8.0 &gt; . . . . .</td>
<td>PERF 8 31 ---&gt; . . . .</td>
<td>VF1 45 ---&gt; . . .</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>NET01 31.0 ---&gt;. . . .</td>
<td>PERF 15 5 &gt; . . . . .</td>
<td>VF2 --</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>TDBB7A 18.0 -&gt; . . . .</td>
<td>PERF 210 28 ---&gt; . . . .</td>
<td>VF3 -- (VF OFFL)</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>TDNY72 28.0 -&gt; . . . .</td>
<td>PERF 220 18 -&gt; . . . .</td>
<td>VF4 --</td>
<td></td>
</tr>
</tbody>
</table>

The two columns labeled VFA% contain vector affinity values.

The following figure shows typical output from the MTA DEL command.
In the SYSTEM % column, TVA contains the total vector affinity for all tasks in the system. There is no LVA field corresponding to the MVFU display’s LVU value. Although vector affinity measurements can also be lost due to step transitions within jobs and job transitions within batch address spaces, it is impossible to derive the total of such lost vector affinity measurements.

The VF1 through VFn values represent utilization of the individual vector facilities. (Note that in some configurations the processors have identification numbers of 0 through n-1.) VFx represents the Facility attached to CPUx. A blank to the right of VFx indicates that no Facility is installed on the corresponding CPU. (VF OFFL) indicates that the Facility for the corresponding CPU is offline. If a Facility is installed on the CPU, (UNAVAIL) will appear if message OM8571 has been issued.

**Note:** Any combination of MVFU, MVFA, and MVFC commands issued in the same cycle, and specifying the same operand value, will display the same jobs and performance groups. This facilitates comparison between a job’s vector utilization and its vector affinity time.

This command requires that OMEGAMON is executing with APF-authorization.

The POPT command can be used to set CPU normalization and scaling preferences for MVFAxx. For further information, see POPT.

**Related Information:** Other Vector Support commands: MVFCxx and MVFUxx

**MVFCxx**

**Type:** OMEGAMON Immediate command

**Description:** Reports on vector CPU utilization and produces output identical to the existing MCPU command.

**MVFCxx**

The xx value, as in the MVFUxx and MVFAxx commands, refers to vector utilization. This means that any combination of MVFA, MVFC, and MVFU commands issued in the same cycle (and for the same value of xx) will report on exactly the same jobs and performance groups.

The output produced by this command is identical to that produced by the MCPUxx command except that the command operand specifies vector utilization which determines the selection of jobs and performance groups. MVFCxx command uses the same scaling factors as the MCPU command. Thus, it is valid to visually compare the bar graph representing TCB Vector Utilization (TVU) from a MVFU display, and the bar graph representing TCB CPU utilization (TCB) from a MCPU (or MVFC) display. However, this might also mean that the SYSTEM scaling factor used for a MVFU display is 0-300% even though the TVU value is less than 100%.

This command requires that OMEGAMON is executing with APF-authorization.

The POPT command can be used to set CPU normalization and scaling preferences, and warning and critical thresholds for MVFCxx. For further information, see POPT.

**Related Information:** Other Vector Support commands: MVFAxx and MVFUxx
Commands and Keywords

MVFUxx

**Type:** OMEGAMON Immediate command

**Description:** Reports on vector facility utilization, where xx determines which jobs and performance groups appear in the output. Only jobs and performance groups consuming at least xx percent of vector resources will be selected. (When the system is running in goal mode under MVS/SP 5.1 and above, performance group data is not available.)

The MVFUxx command uses the same scaling factors as the MCPU command. Thus, it is valid to visually compare the bar graph representing TCB vector utilization (TVU) from a MVFU display, and the bar graph representing TCB CPU utilization (TCB) from a MCPU (or MVFC) display. However, this might also mean that the SYSTEM scaling factor used for a MVFU display is 0-300% even though the TVU value is less than 100%.

An example of MVFUxx output follows:

```
MVFU05 TASK VFU% 0___100|PERF VFU% 0___100|SYSTEM % 0___100
+   TDNY68B 6.0 > . . . . |REG BATJ 14 -> . . . . |TVU: 45 ----> . . . |
+   $NETVA 6.0 > . . . . |PERF 4 8 > . . . . |LVU: 0 . . . . . . |
+   CDSELLOAD 8.0 > . . . |PERF 8 31 -> . . . . |        0_______100|
+   NET01 31.0 -----> . . |PERF 15 5 > . . . . |VF1 45 ----> . . . |
+   TDB17A 18.0 -> . . . |PERF 210 28 --> . . . |VF2 -- |
+   TDNY72 28.0 --> . . . |PERF 220 18 --> . . . |VF3 -- (VF OFFL) |
+   | | |VF4 -- |
```

The two columns labeled VFU% contain vector facility utilization values. Under the SYSTEM % column, TVU, for TCB vector utilization, contains the total vector facility utilization for all tasks in the system. LVU, for lost vector utilization, represents measurements lost due to step transitions within jobs and job transitions within batch address spaces. Unlike the MCPU display, no SRB figure appears under system percentage as MVS maintains no data on Facility utilization in SRB mode. Again, unlike the MCPU display, the SYSTEM % column does not contain a PARn value as no partition level Facility information is available.

The VF1 through VF
n values represent utilization of the individual vector facilities. (Note that in some configurations the processors have identification numbers of 0 through n-1.) VFx represents the Facility attached to CPUx. A blank to the right of VFx indicates that no Facility is installed on the corresponding CPU. (VF OFFL) indicates that the Facility for the corresponding CPU is offline. If a Facility is installed on the CPU, (UNAVAIL) will appear if message OM8571 has been issued.

This command requires that OMEGAMON is executing with APF-authorization.

The POPT command can be used to set CPU normalization and scaling preferences for MVFUxx. For further information, see POPT.

**Related Information:** Other Vector Support commands: MVFAxx and MVFCxx
MZAP

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Modifies the contents of the common area or of the OMEGAMON private storage area. MZAP modifies the contents of the common area:

- Common Storage Area (CSA)
- System Queue Area (SQA)
- Nucleus

Consider the following points:

- Some commonly addressable storage requires no authorization or special key to modify; however, some areas are store-protected. To modify these areas (not recommended under normal circumstances) you must supply the action character in the label field of the MZAP command. You can also use MZAP to zap storage in the OMEGAMON address space for debugging purposes.

- If you use MZAP to modify storage in the pageable link pack area (PLPA), MZAP automatically does a long-term page-fix to ensure that the storage remains modified.

-MZAP  addr,ver,rep

- An action character in column 1, which is required to modify store-protected areas. The hyphen changes to a comment character (> after the command executes.

**addr**
The address of the string that OMEGAMON may modify. You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.

An anchor is the base address of an address specification. It can be:

- **absolute** The hexadecimal address.
- **symbolic** Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

- **offset** A plus sign (+) or minus sign (-), followed by a hexadecimal number. This modifier specifies a location at a known offset (positive or negative) from the anchor address.

- **indirect** Use a question mark (?) as the symbol for 31-bit addressing. Use a percent sign (%) as the symbol for 24-bit addressing. This modifier indicates that the location pointed to is itself an address.

**ver** The verify string. OMEGAMON modifies storage only if OMEGAMON finds this string at addr. If OMEGAMON does not find string, it displays what is actually at addr.

**rep** The replacement string. If OMEGAMON finds ver at addr, rep replaces ver. The verify and replacement strings must be the same length.
In the next screen display, MZAP changes a fullword at location 6764 from X’A’ to X’64’.

MZAP  6744+20,0000000A,00000064

The next screen shows how MZAP changes an X’FF’ to X’00’ at location EA65C0.

MZAP  EA65C0,FF,00

**Related Information:** Other Storage Modification command: XMZP
N-O Commands and Keywords

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OUXBnn ................................................................. 308
NUMAnnn

**Type:** OMEGAMON Minor command

**Description:** Sets maximum number of address spaces for analysis with DEXAN. Use the NUMA command to do two things:

- Without a numeric argument, NUMA displays the maximum number of address spaces that you can monitor.
- With a numeric argument, NUMA changes the maximum number of address spaces that you can monitor. By default, DEXAN allows you to monitor up to five address spaces.

To display the maximum number of address spaces, use the NUMA command without an operand. For example:

```
DEX >> DX0001 Collector has not been started. <<
NUMA >> DX1100 DEXAN to support up to 5 address space analyses. <<
```

For example:

```
DEX >> DX0001 Collector has not been started. <<
>NUMA6 >> DX1100 DEXAN to support up to 6 address space analyses. <<
```

The valid range of the numeric argument is 0 through 99. An entry of zero turns off support for individually monitored address spaces. High values for the numeric argument can increase the storage overhead. The maximum number of individually monitored address spaces cannot be changed after the DEXAN data collector has been started.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnmm, CNTnmmn, CNTAnnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnnn, NUMFnnnn, NUMPnnnn, PCTnnnn, PCTAnnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnmm, PLTAnnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSNnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

NUMFnnnn

**Type:** OMEGAMON Minor command

**Description:** Sets maximum number of performance groups for period one monitoring with DEXAN. The valid range of the numeric argument is 0 through 999, and the initial default is 1. An entry of zero turns off support for monitoring period one of selected performance groups. High values for the numeric argument can increase the storage overhead.

You cannot change the maximum number of performance groups for which period one is monitored after you start the DEXAN data collector. To display the maximum number of
performance groups for which period one can be monitored, use the NUMF command without an operand. For example:

```
DEX    >> DX0001 Collector has not been started. <<
NUMF   >> DX1200 Collector to monitor period 1 of 1 performance grp <<
```

To change the maximum number of performance groups that can undergo period one analysis, use NUMF with an operand while the data collector is off. For example:

```
DEX    >> DX0001 Collector has not been started. <<
NUMF3  >> DX1200 Collector to monitor period 1 of up to 3 performance grps <<
```

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONDnnn, NUMAnnn, NUMPnnnn, PCTnnnn, PCTAinn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

**NUMPnnnn**

**Type:** OMEGAMON Minor command

**Description:** Sets the maximum number of performance groups DEXAN will monitor to nnn. You can use NUMP without an operand regardless of the state of the collector. If the collector is on, NUMP without a numeric argument displays the maximum number of performance groups that DEXAN is monitoring. If the collector is off, NUMP without a numeric argument displays the maximum number of performance groups that DEXAN will monitor when you start the collector.

```
DEX    >> DX0001 Collector has not been started. <<
NUMP   >> DX1300 Collector to collect data on up to 16 performance groups. <<
```

NUMP with a numeric argument changes the maximum number of performance groups that DEXAN can monitor. The maximum number of performance groups eligible for collection cannot be changed after the DEXAN data collector has been started.
For example:

```
DEX   > DX0001 Collector has not been started. <<
NUMP20 > DX1300 Collector to collect data on up to 20 performance groups. <<
```

DEXAN selects performance groups from the IPS in numerical order.

The valid range of the numeric argument is 1 through 999, and the initial default is 16. See the PLST command for information on which performance group numbers are supported.

Generally, you will want to monitor as many performance groups as you have defined in your IPS. However, the more performance groups you monitor, the more storage DEXAN requires.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnnn, CNTnnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnnn, IPRO, J2LD, J2ST, MONJnnn, NUMAnnnn, NUMFnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnnn, RESM, RFSnnnnn, RSPnnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnnn, and XPGnnnnn

**NVSC**

**Type:** OMEGAMON Minor command

**Description:** Displays non-VIO slots held. These are the slots on a page dataset used by portions of the program. This count includes the number of frames swapped out if the address space is swapped out.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, SQA, TWSF, TWSS, VSC, WKST, and WSSI

**.NXE**

**Type:** OMEGAMON Immediate command

**Description:** Controls display of exceptions.

```
.NXEccc

ON Displays exceptions. This is the default.
OFF Does not display exceptions.
```

Enter the .NXE immediate command without an argument to show the current status of the exceptions display.

The frequency for executing an exception is controlled by the EXNCYC (EXecute Next CYcle) keyword of the XACB command. When you set the EXNCYC parameter to check the exception less often than every OMEGAMON cycle, the .NXE command controls whether the
EXSY command continues to display tripped exceptions on the cycles when they are not due for execution.

**Related Information:** None

/O

**Type:** OMEGAMON INFO-line command  
**Description:** Prints the existing OMEGAMON REPORT log or the XLFLOG  
**Related Information:** The /O command is an alias for /LOG with the OUT argument. See the description of /LOG or .LOG for complete information about this command.

OCHP

**Type:** OMEGAMON Minor command  
**Description:** Displays online channel paths for the disk (XA or ESA).  
**OCHPn**  
The value of n is a number from 1 to 8.  
**Related Information:** Minor of: See Disk Information Commands in “Command Groupings” on page 17.

OCMD

**Type:** OMEGAMON Immediate command (Authorized)  
**Description:** Issues MVS and JES2 operator commands from an OMEGAMON terminal.  

-OCMDnn [CONS={conid|conname}] ccccc  

- OCMD requires the action character (-) in column 1. The action character (>) changes to a comment character after execution.  
nn For commands that accept a return destination, the variable nn indicates which operator’s console will receive the response. If you omit nn, the response goes to the master console.  
cccc The variable ccccc is an MVS or JES2 command.  
conid Specifies which operator’s console issued the command. This operand overrides the nn operand.  
conname Specifies the console name from which the command originated.  

OMEGAMON issues the command (cccc) that you supply via SVC 34.  
The following screen display shows an example of the OCMD command.

-OCMD01 SEND ‘PLEASE RELEASE ALL HELD DATA SETS’,USER=TSO001  
-OCMD01 $HJ123  
-OCMD01 C JOB123,DUMP
OMEGAMON has the same MVS console authority as the console you indicate. Therefore, if you want to issue a command that requires master console authority (such as VARY CHANNEL) you must specify the MVS console ID of your current master console. (If you do not specify a console ID, the master console ID is used.)

In TSO or ISPF mode, you can request OMEGAMON to return the output of a command to your terminal. To do this, issue OCMD with a console ID of 99. Then press Enter a second time.

For example:

-OCMD99 D T

displays the date and time on your TSO terminal.

Some MVS commands do not send output to TSO/ISPF users, even though you use OCMD99. This is because OCMD can only request the MVS command scheduler to send the output back to the OMEGAMON TSO/ISPF session; some MVS components do not honor this request. The JES2 $ commands are an example of this restriction.

For example, the output of

-OCMD99 $DA

appears on the master console, not your TSO session.

**Important**

OCMD99 does not work for any OMEGAMON session type except TSO. In particular, it does not work for dedicated or VTAM sessions.

**Related Information:** Other Console-Related commands: CONS, CONU, and RCMD

**OPTN**

**Type:** OMEGAMON Immediate command

**Description:** Sets session control and display options. OPTN displays its current settings in the following format:

```
OPTN
:   ASF      = OFF        BELL      = OFF
:   BELLINT   = 60.00     DATEFORMAT = USA
:   FIRSTSCREEN = OMINITZZ LOG      = OFF
:   MINORCASE = LOWER      SCREENCASE = MIX
:   SCROLL    = PAGE       TSF       = OFF
:   XLF       = OFF        ZEROS     = OFF
```

**ASF**

Turns the Automatic Screen Facility (ASF) ON or OFF.

This feature automatically invokes a predefined screen space when a given exception occurs for more than a specified number of successive cycles. The predefined screen space can contain commands to turn on the log, further evaluate the exception condition, and perform other options. See the discussion of XLF parameter on the XACB command.

**BELL**

Turns the audible alarm ON or OFF.
BELINT

Sets the minimum interval (in seconds) between rings of the bell. A valid value is an integer between 5.00 and 99.00.

DATEFORMAT

Sets display format for the date (mm/dd/yy or dd/mm/yy). Valid values are USA or EUROPEAN.

FIRSTSCREEN

Identifies the name of the first screen space to display.

LOG

Turns the log ON or OFF.

MINORCASE

Sets the display case for minor commands. Valid values are UPPER and LOWER.

SCREENCASE

Sets the display case for screen output. Valid values are UPPER and MIX.

SCROLL

Sets the default scroll amount. Valid values are PAGE, which scrolls an entire screen at a time, and CSR, which scrolls from the cursor position.

TSF

Turns the Timed Screen Facility (TSF) ON or OFF.

This feature automatically invokes screen spaces at times or time intervals with the .TSF command. Many sites use TSF to spin off copies of the REPORT and/or of XLFLLOG files to the printer. In general, you can use the TSF facility to automate many day-to-day housekeeping routines.

XLF

Turns the Exception Logging Facility (XLF) ON or OFF.

This feature automatically time-stamps and logs exception messages for your review. It enables you to correct intermittent performance problems by documenting the frequency and severity of systemwide exceptions. See the discussion of the XLF parameters on the XACB command.

ZEROS

Sets the way in which zeros display on your terminal. When this parameter is ON, OMEGAMON displays the numeral 0 in fields that have a value of zero. When it is OFF, OMEGAMON displays a blank in these fields. This value is not saved in a profile.

XLF, ASF, and TSF all require DEXAN running in dedicated or VTAM automatic update mode. They do not function with DEXAN running under TSO.

Related Information: None

OSPC

Type: OMEGAMON Immediate command (Authorized)

Description: Lists the attributes of the owner of a data-only space (ESA only).

OSPC spacename

where spacename is the name of the data-only space you want to list. If you do not enter a name, OSPC will list all data spaces and hiperspaces. You can also enter any number of characters from 1 to 7, and OSPC will display any space names beginning with the character string entered.

OSPC provides the following information about the specified data space or hiperspace:

- type of data-only space
- ASID of owning TCB
- jobname of owning TCB
- address of owning TCB
Here is an example.

<table>
<thead>
<tr>
<th>OMEGAMON II for MVS Command Language Reference Manual V. 520</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commands and Keywords</td>
</tr>
<tr>
<td>Here is an example.</td>
</tr>
</tbody>
</table>

Because of the potential security risk associated with using OSPC, the .DSA command exists to provide an extra level of protection.

**Related Information:** Other Data Space and Hiperspace Storage commands: .DSA, SCHN, SLST, SSCN, and SZAP

**OUCnnn**

**Type:** OMEGAMON Minor command

**Description:** See OUCBnn.

**Related Information:** None

**OUCBnn**

**Type:** OMEGAMON Minor command

**Description:** Dumps SRM UCB for ASID nn, where nn is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1. Use the OUCnnn command to dump the SRM user control block for ASID nn.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

**OUTP**

**Type:** OMEGAMON Major command

**Description:** Controls the characteristics of log files. The OUTP major command and its minor commands control the printing of XLFLOG and REPORT files.

**OUTP cccccc**
The variable ccccc is either XLFLOG or REPORT. The OUTP major command displays column headings for pending and current values associated with all of its minor commands as shown below.

<table>
<thead>
<tr>
<th>OUTP REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

When you type an OUTP minor command followed by the new value you want to assign and press Enter, the new value displays in the pending value column. It will become the active value when you reallocate the log with /LOG OUT, .LOGOUT, /XLFLOG, or .XLFLOG.

The log will be routed to one of the following dataset types:

- **SYSOUT**, the initial dataset type for OUTP. This file is designated FREE=CLOSE. This means that every time you enter the /LOGOUT, .LOGOUT, /XLFOUT, or .XLFOUT command, the REPORT log or the XLFLOG automatically spins off and is available for printing. This is the recommended method.

- A sequential dataset, with a ddname you specify. Its DCB attributes are LRECL=nn, where nn is the screen column width plus 1; RECFM=FBA; and BLKSIZE is a multiple of LRECL. If you specify attributes that do not conform to these standards, OMEGAMON will dynamically reset them.

---

**Caution**

The use of the DD statement is optional and is not recommended. When DISP=SHR or DISP=OLD is used, any action to close and reopen the file will reinitialize it, thus deleting existing information.

---

Only one session at a time per address space can use a specific ddname.

**Note:** Some prior releases of OMEGAMON used ddname OMREPORT if it was present. This release also looks for ddname OMREPORT if present, but will access it only if it is not currently in use.

Each OUTP minor command controls one XLFLOG or REPORT file characteristic. That characteristic is under the control of ddname or SYSOUT. When SYSOUT is active, ddname is inactive and vice versa. Parentheses around a value in the OUTP display indicate that it is currently inactive. The following table shows the minors and the initial settings for the SYSOUT or ddname datasets.

<table>
<thead>
<tr>
<th>Parameters and the Default Values for SYSOUT and DDNAME</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOUT</strong></td>
<td>A and the DDNAME is (inactive)</td>
</tr>
<tr>
<td><strong>HOLD</strong></td>
<td>NO and the DDNAME is (inactive)</td>
</tr>
<tr>
<td><strong>COPY</strong></td>
<td>1 and the DDNAME is (inactive)</td>
</tr>
<tr>
<td><strong>FORM</strong></td>
<td><em>NONE</em> and the DDNAME is (inactive)</td>
</tr>
<tr>
<td><strong>DEST</strong></td>
<td><em>NONE</em> and the DDNAME is (inactive)</td>
</tr>
<tr>
<td><strong>DSTU</strong></td>
<td>userID and the DDNAME is (inactive)</td>
</tr>
<tr>
<td><strong>DDNM</strong></td>
<td>(inactive) and the DDNAME is *DYNAMIC</td>
</tr>
</tbody>
</table>
Commands and Keywords

**Parameters and the Default Values for** SYSOUT and DDNAME

- **FOLD**
  - YES and the DDNAME is YES

- **LNCT**
  - 60 and the DDNAME is 60

- **ID1**
  - jobname and the DDNAME is jobname

- **ID2**
  - (blank) and the DDNAME is (blank)

- **ID3**
  - (blank) and the DDNAME is (blank)

- **ID4**
  - (blank) and the DDNAME is (blank)

**Related Information:** Major of: COPY, DDNM, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID3, ID4, LNCT, and SOUT

**OUXnnn**

- **Type:** OMEGAMON Minor command
- **Description:** See OUXBnn.
- **Related Information:** None

**OUXBnn**

- **Type:** OMEGAMON Minor command
- **Description:** Dumps SRM user extension block for ASID \( nn \), where \( nn \) is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1. Use the OUX\( nnn \) command to dump the SRM user extension block for ASID \( nnn \).
- **Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCB\( nnn \), ASMV, ASVT, ASXB\( nnn \), CCT, CMB\( xxx \), CMCT, CPMT, CSD, CVT, DMDT\( nn \), GDA, GVT, ICHP, ICT, LCCA\( nn \), LSCT, MCT, OUCB\( nnn \), PARE\( nn \), PART, PCCA\( nn \), PCT, PGDT, PGVT, PSA\( n \), PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SARE\( nn \), SART, SCVT, SPL, WAMP\( nnn \), WAMT, and WMST
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/P

Type: OMEGAMON INFO-line command

Description: See /PRINT.

Related Information: None

PADR

Type: OMEGAMON Minor command

Description: Displays unit address of page datasets, as shown in the screen below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>padr</td>
<td>0326</td>
<td>0326</td>
<td>1145</td>
<td>2320</td>
<td>3333</td>
<td>4324</td>
<td>59CC</td>
<td>6336</td>
</tr>
</tbody>
</table>

Related Information: Minor of: PART

Other Page Dataset minors: PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAER

Type: OMEGAMON Minor command

Description: Displays error count of page datasets.

Related Information: Minor of: PART

Other Page Dataset minors: PADR, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PANI

Type: OMEGAMON Minor command

Description: Displays number of IORBs built for page datasets.

Related Information: Minor of: PART

Other Page Dataset minors: PADR, PAER, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAR2

Type: OMEGAMON Minor command

Description: Displays the second-level qualifier of a page dataset name.

Related Information: Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR
PAR3

**Type:** OMEGAMON Minor command  
**Description:** Displays the third-level qualifier of a page dataset name.  
**Related Information:** Minor of: PART  
Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAR4

**Type:** OMEGAMON Minor command  
**Description:** Displays the fourth-level qualifier of a page dataset name.  
**Related Information:** Minor of: PART  
Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAR5

**Type:** OMEGAMON Minor command  
**Description:** Displays the fifth-level qualifier of a page dataset name.  
**Related Information:** Minor of: PART  
Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAR6

**Type:** OMEGAMON Minor command  
**Description:** Displays the sixth-level qualifier of a page dataset name.  
**Related Information:** Minor of: PART  
Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAR7

**Type:** OMEGAMON Minor command  
**Description:** Displays the seventh-level qualifier of a page dataset name.  
**Related Information:** Minor of: PART  
Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR
PAR8

**Type:** OMEGAMON Minor command

**Description:** Displays the eighth-level qualifier of a page dataset name.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAR9

**Type:** OMEGAMON Minor command

**Description:** Displays the ninth-level qualifier of a page dataset name.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAREnn

**Type:** OMEGAMON Minor command

**Description:** Dumps ASM paging activity reference table entry *nn*, where *nn* is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1. To display the entire table, use PART.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCA, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PCCAnn, PCT, PGDT, PGVT, PSA, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

PART

**Type:** OMEGAMON Minor command

**Description:** Dumps ASM paging activity reference table. (There are other entries with the same name. See the next entry for a description of PART as a major command.) To display one entry in the table, use PAREnn.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCA, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PCCAnn, PCT, PGDT, PGVT, PSA, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST
PART

**Type:** OMEGAMON Major command

**Description:** Selects page datasets, and its minor commands display information about them. (There are other entries with the same name. See the previous entry for a description of PART as a minor of DUMP) PART displays only the first level qualifier of the dataset name. To display additional level qualifiers for a page dataset, use the corresponding minor commands PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, or PAR9. For example, to display the fourth level qualifier of a dataset name, use PAR4.

**Related Information:** Major of:

PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAS%

**Type:** OMEGAMON Minor command

**Description:** Displays percent full for page datasets. This is calculated as \((PASZ-PAVL)\times 100/PASZ\).

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PAST

**Type:** OMEGAMON Minor command

**Description:** Displays status of page datasets. OK/VIO indicates that the local dataset is OK and also accepts VIO pages. Okay indicates that the local dataset is OK but does not accept VIO pages.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

PASZ

**Type:** OMEGAMON Minor command

**Description:** Displays size of page datasets in slots.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR
**PATM**

**Type:** OMEGAMON Minor command

**Description:** Displays average page I/O time in milliseconds for page datasets. Under some versions of MVS, the I/O time figures that PATM produces are not meaningful for the Common and PLPA page datasets (the first two datasets that PART and its minors display). Therefore, OMEGAMON shows the first two datasets as blanks under MVS/XA 2.1.1 with PTF UZ90290 installed and 2.1.2 or higher.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

**PATP**

**Type:** OMEGAMON Minor command

**Description:** Displays type of page dataset.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

**PAVL**

**Type:** OMEGAMON Minor command

**Description:** Displays available slots for page datasets.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, PSIO, and PXFR

**PAVS**

**Type:** OMEGAMON Minor command

**Description:** Displays volume serial of DASD.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PDVT, PSIO, and PXFR

**PCCAnn**

**Type:** OMEGAMON Minor command

**Description:** Dumps physical configuration communication area nn, where nn is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP
Other Control Block Display minors:  ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVAT, ICTS, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCT, PDGT, PGVT, PSAAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

.PCS

**Type:**  OMEGAMON Immediate command

**Description:**  Displays OMEGAMON program check statistics. If OMEGAMON detects a program check, the information is useful to Candle Customer Support for debugging.

**Related Information:**  None

PCTnnnn

**Type:**  OMEGAMON Minor command

**Description:**  Displays execution state percentages for performance group nnnn. Like a plot display, a percentage display always lists Using CPU first. The top row of the display shows execution states where the workload is spending time. The second row of the percentage display shows the percentage of time the workload is spending in an execution state. For example:

```
   PCT002    CPU  PAG  UNI  DET  745  25A  150 Q1500 CPW  732  153  TOU  249 Q7321
   +  T S O  2.7 29.1 20.9 16.5  5.0  4.7  4.0  2.1  1.9  1.5  1.4  1.3  1.3  1.3
```

This example shows that page-in wait and swapping–exchange, unilateral, and detected wait swaps–cause about two-thirds of TSO degradation. Miscellaneous I/O contention causes most of the remainder.

**Note:**  You may also enter the PCTnnnn command as PCTPnnnn. These commands are the same.

**Related Information:**  Minor of:  DEX

Other DEXAN minors:  ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnnn, CNFTnnn, CNTJnnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnnn, NUMAnnn, NUMFnnnn, NUMPnnnn, PCTnnnn, PCTFnnn, PCTJnnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnnn, PLTJnnn, PLTS, POFFnnnn, PONnnnn, RESM, RSRnnnn, RSVPnnnn, STIMnnn, SUST, SUST, THRS, XCTnnnn, and XPGnnnnn

PCT

**Type:**  OMEGAMON Minor command

**Description:**  Dumps ASM performance characteristics table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:**  Minor of:  DUMP
Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

PCTAnn

Type: OMEGAMON Minor command

Description: Displays wait reasons by percentage for job nn. Use the PCTA command with the DEXAN slot number to display a percentage listing of wait reasons.

Related Information: Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnnn, FONnnnnn, IPRO, J2LD, J2ST, MONJnnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnnn, PCTFnnn, PCTJnnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnnn, PLTJnnn, PLTS, POFnnnnn, PONnnnnn, RESM, RSPnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnnn, and XPGnnnnn

PCTFnn

Type: OMEGAMON Minor command

Description: Lists execution state percentages for the performance group with DEXAN slot number nn. Like a plot display, a percentage display always lists Using CPU first. The top row of the display shows execution states where the workload is spending time. The second row of the percentage display shows the percentage of time the workload is spending in each execution state. For example:

<table>
<thead>
<tr>
<th>PCTF01</th>
<th>CPU</th>
<th>PAG</th>
<th>25A</th>
<th>735</th>
<th>ECB</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ TSO</td>
<td>2.7</td>
<td>46.6</td>
<td>28.2</td>
<td>16.3</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Related Information: Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnnn, FONnnnnn, IPRO, J2LD, J2ST, MONJnnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnnn, PCTFnnn, PCTJnnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnnn, PLTJnnn, PLTS, POFnnnnn, PONnnnnn, RESM, RSPnnnn, RSPnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnnn, and XPGnnnnn

PCTJnn

Type: OMEGAMON Minor command

Description: Displays wait reasons by percentage for job nn or jobname. Use PCTJ command to display the wait reasons for a job (address space). For example:

```
PCTJ OMEGAMON
PCTA5
```
results in:

<table>
<thead>
<tr>
<th>PCTS</th>
<th>CPU</th>
<th>CPW</th>
<th>ECB</th>
<th>STI</th>
<th>DET</th>
<th>ECS</th>
<th>LON</th>
<th>TMP</th>
<th>TOU</th>
<th>SWI</th>
<th>333</th>
<th>155</th>
<th>520</th>
<th>PAG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.8</td>
<td>42.3</td>
<td>21.2</td>
<td>12.6</td>
<td>10.4</td>
<td>5.7</td>
<td>1.8</td>
<td>1.2</td>
<td>.3</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
</tr>
</tbody>
</table>

This display shows two address spaces: OMEGAMON and PRMS40BW. OMEGAMON shows only STI waits, but PRMS40BW shows degradation due to paging, unilateral swaps, waiting for CPU cycles, and I/O contention.

The top row of the percentage display lists execution states where a workload spends time. The numbers in the second row are the percentage of time that a workload spends in an address space.

Only 14 execution states can be displayed at one time. To scroll horizontally to see any additional wait reasons, type 1 in column 1 next to the command to move to the second screen. Type 2 in column 1 to move to the third screen, and so on. To return to the first screen, enter 0 or blank in column 1. Likewise, type 1 in column 1 next to the command to return to the second screen from any screen.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

**PCTPnnnn**

**Type:** OMEGAMON Minor command

**Description:** See PCTnnnn.

**Related Information:** None

**PCTS**

**Type:** OMEGAMON Minor command

**Description:** Displays a percentage listing of DEXAN wait reasons systemwide. Use the PCTS command to display execution states. For example:

<table>
<thead>
<tr>
<th>PCTS</th>
<th>CPU</th>
<th>CPW</th>
<th>ECB</th>
<th>STI</th>
<th>DET</th>
<th>ECS</th>
<th>LON</th>
<th>TMP</th>
<th>TOU</th>
<th>SWI</th>
<th>333</th>
<th>155</th>
<th>520</th>
<th>PAG</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.8</td>
<td>42.3</td>
<td>21.2</td>
<td>12.6</td>
<td>10.4</td>
<td>5.7</td>
<td>1.8</td>
<td>1.2</td>
<td>.3</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
<td>.2</td>
</tr>
</tbody>
</table>

The top row in the percentage display shows execution states where a workload is spending time. The numbers are the percent of time that the workload is spending in an execution state.

In this example, the major bottleneck is the CPU. The system is waiting almost half the time for CPU cycles.

**Related Information:** Minor of: DEX
Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnnn, CNTnnnn, CNTAnn,CNTFn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn,PCTFn, PCTJnn, PLST, PLTnnnn, PLTAnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XP Gunn

**PDSK ccccccc**

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about disks by volser pattern ccccccc (XA). If an asterisk is the last character in the volser pattern, any character after that point meets the selection criteria. For example, the pattern VS* displays the volumes VSRESA, VSAM01, VS, and so on.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAXxx, CHNP, CONnnnn, CTAPxx, CUR xx, DSCnxx, DUTnnn, EDSKcccccc, IOSnnn, LCHRxxx, LCOMxxxx, LCTCxxxx, LCU xxx xxx, LDSKxxxx, LGRAxxx, LTAPxxx, LUR xxx, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxxx, SCTYPExx, SDKxxxx, SGRAxxx, STAPxxxx, SURxxxx, and XDSK

**PDVT**

**Type:** OMEGAMON Minor command

**Description:** Displays device type of the page dataset.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PSIO, and PXFR

**PEEK**

**Type:** OMEGAMON Major command (Authorized)

**Description:** Collects information about a single address space. After you issue the PEEK command to collect information from the target address space, you can format and display this information with various PEEK minor commands.

**aPEEK targ**

*a* An action character in column 1:

- Specifies that new data be collected from the target address space.
- Specifies that the command be re-executed on succeeding cycles. Enables minor commands to execute with previously collected data.
A non-blank action character is required the first time you look at a job or need to collect new information.

```
targ
```

The target address space. It can be:

```
cccccc jobname
```
```
nnn decimal ASID number
```
```
* OMEGAMON address space
```

For example, to gather data from a job named PAYROLL (with an ASID of decimal 25), enter:

```
-PEEK PAYROLL
```

or

```
-PEEK 25
```

PEEK accesses the PAYROLL address space, removes the action character from column 1, and displays the following:

```
PEEK PAYROLL ASID=25 >> OB8112: Data Collection Initiated <<
```

When PEEK collects the data from the target address space and stores it in the work area, it displays this information:

```
PEEK PAYROLL ASID=25, collected at 15:39:39
```

Any PEEK minor commands that you issue now examine this work area. Each time you issue PEEK with the action character in the label field, PEEK collects current information. If you issue PEEK without an action character, it uses the data in the work area from the previous update.

Note that PEEK uses cross memory services to access the target address space for a job that runs non-swappable. For a swappable job, it uses an SRB routine. Since SRBs run at the highest priority and increase the swapping load, overuse can degrade performance. The .SET command contains two keywords to set OMEGAMON profile parameters for the PEEK command. The keywords are LOOPCOUNT and PEEKSIZE.

**The Purpose of the LOOPCOUNT and PEEKSIZE Keywords on the .SET Command**

The PEEK command traces control block chains. If OMEGAMON encounters a damaged target address space, some of the control blocks examined may have chained into a loop. The purpose of the LOOPCOUNT keyword is to enable OMEGAMON to issue a warning message in such a case. The warning may also appear when you chain through an address space that has a complex TCB structure. In this case, the cause may not be a loop, but rather the large amount of processing that is necessary to scan all of the TCBs.

As the name suggests, PEEKSIZE sets the work area size for the PEEK command. The WSIZ minor command performs the equivalent function. The first time you use PEEK in an OMEGAMON session, it obtains a work area (32K by default) from the private area to hold the collected data. OMEGAMON gives you a warning message if the data does not fit within the work area. In such a case, you should issue .SET and increase the value of PEEKSIZE.
Commands and Keywords

to increase the work area size. Then reissue the PEEK command and it will collect the data. You can save the new PEEKSIZE definition in a user profile.

**Related Information:** Major of: AMAP, DATA, DDNS, JOBS, MODS, STEP, SUBP, TCBS, and WSIZ

**PERD**

**Type:** OMEGAMON Minor command  
**Description:** Displays period number. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Identification minors: ASID, DMNA, .DMPxx, DOM#, PERF, PGNA, PROC, and STEP

**PERF**

**Type:** OMEGAMON Minor command  
**Description:** Displays performance group number. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Identification minors: ASID, DMNA, .DMPxx, DOM#, PERF, PGNA, PROC, and STEP

**.PFK**

**Type:** OMEGAMON Immediate command  
**Description:** Displays or resets command mode PF key definitions for the current session.

---

**Important**

At startup, OMEGAMON executes the Candle screen spaces containing default PF key assignments. The PF keys that you define with .PFK are in effect only for that OMEGAMON session. To make these assignments permanent, you must change the defaults in the screen spaces. For command mode, these screen spaces are @ZPFKDEF (PF keys 1–12) and @ZPFKDF2 (PF keys 13–24). For menu mode, they are @ZPFKNEW (PF keys 1–12) and @ZPFK2 (PF keys 13–24).

| c.PFKnn=aaaaaaaa/*bbb...b |

_(blank)_ Without operands, .PFK displays all current PF key settings for command mode. PF keys without assignments do not appear on the screen. The default PF key definitions in command mode differ from those in the menu system.

| c |

Label E for redefining several PF keys at one time.
Define PF Keys

You can define up to 99 physical and logical PF keys. Enter the .PFK command and type the new definition after an equal sign. Type comment text following a slash and asterisk (/*).

For example, the following command sets PF15 to issue the /STOP INFO-line command for this session.

```
.PFK15=/STOP         /* Stops OMEGAMON
```

Assign Screen Space Names to PF Keys

Use the same format to assign screen space names to PF keys. For example, the following command sets PF26 to call the screen space DISKS for this session.

```
.PFK26=DISKS         /* DASD information
```

To call a screen space assigned to a PF key, press the associated PF key or type its number on the INFO-line.

Delete Definitions

To delete a definition, enter a single underscore (_) for the definition. For example, the following command deletes the definition for PF18:

```
.PFK18=_
```

Redefine Multiple PF Keys at Once

Use the following steps to redefine several PF keys at one time without having to retype the .PFK command for each one:

1. Enter E.PFK.
   OMEGAMON gives you an extended display of all current PF key assignments and inserts .PFK before each key number as shown here:
   
   ```
   +.PFK11=/ZOOM            /* ZOOMING FEATURE
   ```

2. For each new assignment, blank out the plus sign (+) in front of .PFK and type the new assignment following the equal sign.

3. Press Enter.
   The assignments you have entered will be in effect for the duration of the session.

Related Information: None

PGDT

Type: OMEGAMON Minor command

Description: Dumps performance group descriptor table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in
Commands and Keywords

column 1. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

PGN

Type: OMEGAMON Immediate command

Description: Displays or modifies the performance group name table. The PGN command lets you assign descriptive names to performance group numbers for reporting purposes. It uses the multi-line input facility to make it easy for you to change values. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above. The following considerations apply to the multi-line input facility:

- You can modify any display line that begins with a colon in column 1.
- Blanking out fields has no effect; OMEGAMON redisplays the line on the next cycle.
- To change a setting, type over the displayed value and press Enter.
- OMEGAMON marks modified entries with one of the following words:
  - ADDED
  - UPDATED
  - DELETED

OMEGAMON treats commas, blanks, and parentheses in command syntax as delimiters.

If you issue the PGN command without any operands or keywords, OMEGAMON displays the first 100 entries of the performance group name table. A typical performance group name table follows:

```
----------------  ZWELCOME TSO OM/DEX  V750./C SYSA 12/09/99 16:46:    01
PGN
+PGN      Name
 : 0  '*SYSTEM*'
 : 1  'REG BATJ'
 : 2  'TSO'
:100  'P.G. 100'
+ There are 4 entries defined in the performance group name table.
```

**PGN** Specifies the performance group number.

**Name** Specifies the symbolic name for the performance group.

If you issue the PGN command with the DIS operand, OMEGAMON displays the performance group name table in the format shown above (if you issue the PGN command without operands, OMEGAMON assumes the DIS operand). The syntax is as follows:
**PGN DIS [NUMBER(n1,n2,...nn1 : n2)]**

**[ALL]**

**NUMBER**  Specifies a list, range, or combination of performance group numbers.

**ALL**  Specifies all entries in the performance group name table.

If you issue the PGN command with the ADD operand, you can add one or more entries to the performance group name table. The syntax is as follows:

`PGN ADD (nnn,cccccccc) (nnn,cccccccc) (nnn,cccccccc)`

`nnn,cccccccc`  Specifies a performance group number and descriptive name. Enclose the name in single quotes if it contains imbedded blanks.

A typical output from the PGN ADD command is shown below.

```
>PGN ADD (3,CICS) (4,IMS)
+PGN       Name
  + 3 'CICS   * added *
  + 4 'IMS   * added *
```

If you issue the PGN command with the DEL operand, you can delete one or more entries from the performance group name table. The syntax is as follows:

`PGN DEL [NUMBER(n1,n2,...nn1 : n2)]`

**[ALL]**

**NUMBER**  Specifies a list, range, or combination of performance group numbers.

**ALL**  Specifies all entries in the performance group name table.

Typical output from the PGN DEL command follows.

```
>PGN DEL 1,100
+ PGN     Name
  + 1 'BATJ  * deleted *
  + 100 'P.G. 100' * deleted *
```

**Related Information:** Other table customization commands: DMN and XQN

**PGNA**

**Type:** OMEGAMON Minor command

**Description:** Displays performance group name. You can use the PGN immediate command to define 1-8 character performance group names for your performance groups. OMEGAMON only defines a few performance groups. If an address space has a performance group number outside of the defined range, an error message (**ER:RANGE**)
appears. When the system is running in goal mode under MVS/SP 5.1 and above, this command is not valid.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Identification minors: ASID, DMNA, .DMPxx, DOM#, PERD, PERF, PROC, and STEP

PGRnnnn

**Type:** OMEGAMON Major command

**Description:** See PGRPnn.

**Related Information:** None

PGRPnnn

**Type:** OMEGAMON Major command

**Description:** Selects performance group nn to monitor and display number of periods. RMF must be active.

To compare periods, enter PGRPnnn with multiple PRD# minor commands. To compare performance groups, follow one PGRPnnn and PRD#nn entry with another PGRPnnn and PRD#nn entry. Use PGRnnnn to select a three-digit performance group number.

This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Major of: PRD#nn

PGVT

**Type:** OMEGAMON Minor command

**Description:** Dumps performance group vector table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PSAnn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

PLOT

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Graphically displays SEEK contention for a specified device. The following figure shows the output from a PLOT minor command. The Observed Seeks are plotted by cylinder number. The accessed cylinder is indicated with an asterisk (*) in the graph, along
with the direction and distance the device head moved in relation to the previous SEEK that was observed during sampling.

SEEK VOL(OMON28) INT(10)
+ Unit=3DC Volser=OMON28 Samples=70 Interval=10 ms Time=08:43:21
+ Observed Seeks=20 Low Cyl=83 High Cyl=881 Avg Seek=20 cyls
PLOT
+ #  Jobname   Cyl 0----100----200----300----400----500----600----700----800+-
+ --- -------- ----+----------------------------------------------------------+
+  3 TESTJOB1  853 |                                                        * |
+  6 PRODJOBA  83  *<------------------------------------------------------------------|
+  7 PRODJOBA  84  *------------------------------------------------------------|
+  8 XYZJOB    773  *-----------------------------------------------------------------
+ 12 TSouserX  310  *------------------------------------------------------------------|
+ 15 TESTJOB1  854  *------------------------------------------------------------------|
+ 19 TSouserY  527  *------------------------------------------------------------------|
+ 21 TSouserX  880  *------------------------------------------------------------------|
+ 28 TESTJOB1  855  *------------------------------------------------------------------|
+ 32 ABOJOB    395  *------------------------------------------------------------------|
+ 35 TSouserX  881  *------------------------------------------------------------------|
+ 41 PRODJOBA  85  *------------------------------------------------------------------|
+ 42 TSouserY  528  *------------------------------------------------------------------|
+ 45 TESTJOB1  859  *------------------------------------------------------------------|
+ 49 TSouserX  310  *------------------------------------------------------------------|
+ 53 TSouserY  881  *------------------------------------------------------------------|
+ 56 TSouserY  529  *------------------------------------------------------------------|
+ 61 TSouserZ  195  *------------------------------------------------------------------|
+ 62 XYZJOB    771  *------------------------------------------------------------------|
+ 63 PRODJOBA  853  *------------------------------------------------------------------|

Related Information: Minor of: SEEK
Other SEEK Contention Analysis Authorized Minors: DATA and WSIZ nnn

PLST

Type: OMEGAMON Minor command

Description: Lists performance groups selected for DEXAN monitoring. PLST identifies the performance groups that have been selected to be monitored by DEXAN. DEXAN can monitor nnn performance groups, where nnn is determined by the major command NUMP. The way that DEXAN selects groups to be monitored depends on your use of the minor commands PON and POF. If you have not used PON and POF, DEXAN selects the first nnn performance groups that are defined in the system. If you have used PON, DEXAN selects the performance groups specified by PON before scanning the system for other performance groups. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.
DEXAN scans the system dynamically for performance groups to be monitored when BEGN is issued and at every clear interval. When performing this scan, DEXAN skips performance groups that have been specified in the POF command.

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEX</td>
<td>&gt;&gt; DX0001 Collector has not been started. &lt;&lt;</td>
</tr>
<tr>
<td>PLST</td>
<td>0,1,2,3,4,5,6,7,8,9,80,81,100,101,102,103,104, + 400,401,402,403,404.</td>
</tr>
</tbody>
</table>

In this example, PLST lists the 24 performance group numbers defined in the current IPS. If the DEXAN data collector is started with the default of 16 for NUMP, then PLST selects only the first 16 performance groups defined in the IPS.

**Note:** DEXAN must complete at least one collection cycle before it can execute the command.

The PLST command makes the actions of the PON, POF and RSP commands visible.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAaaa, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, PCTnnnn, PCTAaaa, PCTFnn, PCTJnn, PCTS, PLTnnnn, PLTAnnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSpnnnn, RSpnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

**PLTAnn**

**Type:** OMEGAMON Minor command

**Description:** Displays a plot of job degradation analysis data for DEXAN slot number nn.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAaaa, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, PCTnnnn, PCTAaaa, PCTFnn, PCTJnn, PCTS, PLTnnnn, PLTAnnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSpnnnn, RSpnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

**PLTFnn**

**Type:** OMEGAMON Minor command

**Description:** Plots period 1 wait reasons for the performance group with DEXAN slot number nn. The operand, nn, is the DEXAN slot number. The DEXAN slot number is the number DEXAN assigns to a performance group when you select the performance group for
period one monitoring. See FLST for more information on the DEXAN slot number. For example:

<table>
<thead>
<tr>
<th>PLTF01 TSO</th>
<th>%</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Using CPU</td>
<td>5.7</td>
<td>--&gt;</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>+ Private Page-in Wait</td>
<td>49.6</td>
<td>--------------</td>
<td>--&gt;</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>+ Disk TSO001 025A Active</td>
<td>8.2</td>
<td>--&gt;</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>+ Disk MVS307 0735 Active</td>
<td>7.5</td>
<td>--&gt;</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>+ ECB Wait</td>
<td>6.2</td>
<td>--&gt;</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
<td>.</td>
</tr>
</tbody>
</table>

**Note:** The percent column may exceed 100%, representing multi-tasking or concurrent workload activity. These are instances when multiple execution states (wait states) are observed during sampling.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MOnJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn,PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPrnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnn, and XPGrnnnn

**PLTJnn**

**Type:** OMEGAMON Minor command

**Description:** Displays a plot of job degradation analysis data for DEXAN slot number nn or jobname. To display a plot of the most significant wait reasons affecting a job, use the PLTA, PLTJ, or MONJ command. Following is an example of the PLTA and PLTJ command. For example:

```
PLTJ02
-------
PLTJ T010HP32
-------
PLTA05
```
In this example, both the DEXAN slot number and jobname were used.  

Using CPU, which is a productive state, always appears first on a plot.  
In this example, both job T063D and T010HP32 suffer from severe degradation because of disk I/O contention.  Job SCJ05FL waits for almost half of its time on Tape Mounts Pending.  

**Note:** The percent column may exceed 100%, representing multi-tasking or concurrent workload activity.  These are instances when multiple execution states (wait states) are observed during sampling.  

**Related Information:** Minor of: DEX  
Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFn, PCTJnn, PCTS, PLTnnnn, PLTA0nnn, PLTFnn, PLTS, POFnnnn, POFnnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnnn, and XPGnnnnn  

**PLTnnnn**  
**Type:** OMEGAMON Minor command  
**Note:** The PLTnnnn command may also be entered as PLTPnnnn. These commands are the same.  
**Description:** Plots wait reasons for performance group nnnn. Use the PLTnnnn command with the performance group number to display a plot of the most significant wait reasons for a
performance group. The PLT command without an operand displays a plot for the entire system. The following figure shows an example of the PLT command.

```
+ Using CPU           2.7 |->  .   .   .   .   .   .   .   .   .   .|
+ Private Page-in Wait 29.1 |----------->  .   .   .   .   .   .   .   .   .   .|
+ Swapped: Unilateral 20.9 |--------->   .   .   .   .   .   .   .   .   .   .|
+ Swapped: Det-Wait   16.5 |------> .   .   .   .   .   .   .   .   .   .|
+ Disk MV307 0745 Active 5.0 |--> .   .   .   .   .   .   .   .   .   .|
```

This figure shows the major differences between the batch performance group and TSO. Waiting for CPU and tape mounts impact batch, while swapping and paging impact TSO. Using CPU always appears first on a plot display although it does not represent degradation. This differs from the resource impact profile, in which active states do not appear at all.

**Note:** The percent column may exceed 100%, representing multi-tasking or concurrent workload activity. These are instances when multiple execution states (wait states) are observed during sampling.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFlnn, CNTJnn, CNTS, END, FLST, FOFlnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnnn, PCTFnn, PCTJnn, PCTS, PLST, PLTAnnn, PLTFnn, PLTJnn, PLTS, POFlnnnn, PONnnnn, RESM, RSFnnnn, RSVPnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnnn

**PLTPnnnn**

**Type:** OMEGAMON Minor command

**Description:** See PLTnnnn.

**Related Information:** None

**PLTS**

**Type:** OMEGAMON Minor command

**Description:** Plots DEXAN wait reasons systemwide. To display a plot of the most significant wait reasons systemwide, use the PLTS command. For example:

```
+ Using CPU               .8 | >    .   .   .   .   .   .   .   .   .   .|
+ Waiting for CPU         42.3 |----------->  .   .   .   .   .   .   .   .   .   .|
+ ECB Wait                21.2 |--------->   .   .   .   .   .   .   .   .   .   .|
+ STIMER Wait            12.6 |------>  .   .   .   .   .   .   .   .   .   .|
+ Swapped: Detected Wt    10.4 |----->  .   .   .   .   .   .   .   .   .   .|
+ ECB (w/STIMER)           5.7 |-->  .   .   .   .   .   .   .   .   .   .|
```

To display a resource impact profile for systemwide analysis, use this command with the IPRO command.
Note: The percent column may exceed 100%, representing multi-tasking or concurrent workload activity. These are instances when multiple execution states (wait states) are observed during sampling.

Related Information: Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTAnnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnn, PLTJnn, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

PNDnnn

Type: OMEGAMON Minor command

Description: Sets threshold for average device pending time > nnn milliseconds (XA).

Related Information: Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccccc, PTAP ccccccc, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

POFnnnn

Type: OMEGAMON Minor command

Description: Removes performance group nnnn from DEXAN data collection. Often performance groups are defined in the IPS but not used. The POF command allows you to exclude these performance groups from monitoring by DEXAN, thus reducing the memory required by the data collector, as in the following example.

```
  DBX >> DX0001 Collector has not been started. <<
  POF21 + >> DX6002 Performance groups for forced rejection: + >> 21 <<
```

If the data collector is not running, the POFnnnn command excludes performance group nnnn from automatically being selected for data collection when the collector is started.

If the data collector is running, the POF command removes the performance group at the next clear interval.

Note: Do not remove performance group 0 from data collection. This ensures that the lowest performance group you select is monitored.

For immediate removal of a performance group from monitoring when the data collector is running:

1. Use POF to remove the performance group.
2. Use the CLR command to clear the data collectors.

```
DEX    >> DX0001 Collector has not been started. <<
POF1155
+       >> DX6002 Performance groups for forced rejection:
+       >> 21,1155 <<
```

The POF command lists all performance groups that have been rejected from monitoring. In
the above example, performance groups 21 and 1155 are defined in the IPS but are not used.
If the IPS is changed, introducing new performance group numbers, then you can use the
PON command similarly to add new performance group numbers.

**Note:** DEXAN resets all performance group selections at each RMF interval. This allows
DEXAN to follow any changes made in the IPS from an operator SET command.

If there are performance groups that you usually do not want to monitor, you may want to put
a few POFs in a screen space and invoke the screen space when you start DEXAN.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ,
CLRnnnn, CNTnnnn, CNTAnn, CNTFn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn,
IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnn, NUMPnn, PCTnnnn, PCTAnn,
PCTFn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, PONnnnn,
RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnnn

### PONnnnn

**Type:** OMEGAMON Minor command

**Description:** Selects performance group nnnn for DEXAN monitoring. If you use
PONnnnn before data collection starts, the performance group you select with PON is
automatically monitored when you start data collection with the BEGN command.

If the data collector is running, the PON command adds performance group nnnn to data
collection and removes the last performance group that DEXAN automatically selected. For example:

```
DEX >> DX0000 V750 running. Cycles=88  STIM=2.2  Elap=3:13  MN  <<
BEGN >> DX1000 The data collector started. Workarea size= 40112 Bytes <<
PON21
```

In this example, DEXAN monitors performance group 21 at the next interval.

```
DEX >> DX0000 V750 running. Cycles=117  STIM=2.2  Elap=4:19  MN  <<
BEGN >> DX1000 The data collector started. Workarea size= 40112 Bytes <<
PON21
+       >> DX6001 Performance groups for forced selection:
+       >> 21 <<
```

The PON command also displays a listing of all performance groups that are eligible for
monitoring. To *immediately add* a performance group to data collection follow these steps:

1. Use the PON command to add a performance group.
2. Use the CLR command to clear the data collector.

3. The selected performance group is now being monitored.

   **Note:** Performance group 0 must be monitored at all times. This ensures that the lowest performance group you select is monitored.

Remember that the value of the NUMP command should be one more than the number of performance groups you are monitoring.

See the RSP command for an alternative to the PON command.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnnn, CNTFnnn, CNTJnnn, CNTS, END, FLST, FOFnnnnn, FONnnnnn, IPRO, J2LD, J2ST, MOnJnnn, NUMAnnnn, NUMFnnnn, NUMPnnnn, PCTnnnn, PCTAnnn, PCTFnnn, PCTJnnn, PCTS, PLST, PLTnnnnnn, PLTAnnn, PLTFnnn, PLTJnnn, PLTS, POFnnnnnn, RESM, RSFnnnnnn, RSFnnnnnn, STIMnnn, SUSP, SYNC, THRS, XCTnnnnnn, and XPGnnnnnn

**POPT**

**Type:** OMEGAMON Immediate command

**Description:** Sets global OMEGAMON product options.

```plaintext
POPT

[CPUSCALE=100|FIX100|FIXED|AUTO]
[MDF=ON|OFF]
[SCPUWARN=nnn]
[SCPUCRIT=nnn]
[SCPUTWARN=nnn]
[SCPUTCRIT=nnn]
[DYPRFROMn=devnum]
[DYPRTOn=devnum]
[XDSK=QR|DUT]
```

Displays all current product options, and allows you to change them.

**CPUSCALE=100|FIX100|FIXED|AUTO**

Sets normalization and scaling preferences for SCPU, MCPU, and the MVxx vector commands.

- **100** Normalizes CPU percent values to fit a scale of 0 to 100.
- **FIX100** Fixes the scale on the graph at 0 to 100, but does not normalize CPU values for each task. Thus, values may exceed 100 when running on multi-processor systems. The graphs of CPU values greater than 100% are truncated.
Commands and Keywords

**PPRF**

**Type:** OMEGAMON Immediate command  
**Description:** Saves, deletes, comments, or lists the user’s session profile.

### PPRF

**Related Information:** None

**Commands and Keywords**

**PPRF**

**Type:** OMEGAMON Immediate command  
**Description:** Saves, deletes, comments, or lists the user’s session profile.

### Commands and Keywords

**Fixed**  
Totals CPU percent values to fit a scale of 0 to 100 times the number of processors online.

**Auto**  
Totals CPU percent values. The scale is the smallest multiple of 100 that will hold the value. This is the default.

**MDF=ON|OFF**

Enables/disables processing of MDF data in an AMDAHL environment. ON is the default.

**SCPUWARN=nnn**

Sets the SCPU detail line warning value. The default is 30.

**SCPUCRIT=nnn**

Sets the SCPU detail line critical value. The default is 70.

**SCPUTWARN=nnn**

Sets the SCPU total line warning value. The default is 85.

**SCPUTCRT=nnn**

Sets the SCPU total line critical value. The default is 95.

**DYPRFROMn=devnum**

Sets the lower bound of a range of device numbers to be excluded from DYPR exception processing. There are ten ranges (DYPRFROM1 to DYPRFROM10). An entry of ‘FFFF’ indicates that no further ranges should be processed.

**DYPRTO=devnum**

Sets the upper bound of the range (DYPRTO1 to DYPRTO10).

**XDSK=OR|DUT**

Controls the XDSK minor command of STAT (XA and above).

**OR**

A device will be displayed if it exceeds any of the thresholds that apply to the XDSK command (DUT, RSP, CON, DSC, IOS, or PND). This is the default.

**DUT**

A device will be displayed if it exceeds the DUT threshold and one of the other thresholds.

**Related Information:** None
**PPRF** SAVE|DELETE|COMMENT|LIST  cc

**SAVE** Saves the user profile in the dataset defined by the OMPROFSV DD statement.

**DELETE** Deletes the user profile from the dataset defined by the OMPROFSV DD statement.

**COMMENT** Displays a description of the current profile and allows you to change it dynamically.

**LIST** Lists all members of the user profile dataset.

**cc** Specifies the 2-character user profile identifier. To start subsequent sessions with this profile, specify this value in the USER= startup parameter.

If you do not specify cc, the PPRF command uses the current value of the USER= startup parameter.

**Related Information:** See IPRF.

**PPT**

**Type:** OMEGAMON Minor command

**Description:** Displays a list of programs in the Program Properties Table along with their special attributes. See the IBM MVS/ESA System Programming Library: Initialization and Tuning for a description of the attributes.

**Related Information:** Minor of: SYS

**PRCP**

**Type:** OMEGAMON Minor command

**Description:** Displays CPU service units. If there are no transactions in the corresponding period, this command does not display a value. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Minor of: PRDI

Other Performance Group information minors: PRDM, PRIO, PRMS, PROB, PRSP, PRSU, PRSW, PRTR, and PRWL

**PRD#nn**

**Type:** OMEGAMON Minor command

**Description:** Displays monitoring information on TSO period nn. Shows number of completed transactions since the start of the current RMF interval, average swaps per transaction, and average response time for the TSO period nn for the performance group selected by the major command.

On MVS/SP 5.1 and above systems running in compatibility mode, the time period starts when the user first enters the PGRP command. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.
If you use RTO, the average response time OMEGAMON displays may differ from the RTO setting, because OMEGAMON reports the actual response time before RTO is applied.

To compare periods, enter PGRPnn with multiple PRD# minor commands. To compare performance groups, follow one PGRPnn and PRD#nn entry with another PGRPnn and PRD#nn entry.

**Related Information:** Minor of: PGRPnn and PGRnnn

### PRDnnn

**Type:** OMEGAMON Major command  
**Description:** See PRDInn.  
**Related Information:** None

### PRDInn

**Type:** OMEGAMON Major command  
**Description:** Selects all periods in performance group nn. RMF required. Use PRDnnn to select a three-digit performance group number. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.  
**Related Information:** Major of: PRCP, PRDM, PRIO, PRMS, PROB, PRSP, PRSU, PRSW, PRTR, and PRWL

### PRDM

**Type:** OMEGAMON minor command.  
**Description:** Displays domain number for this period. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.  
**Related Information:** Minor of: PRDI  
Other Performance Group information minors: PRCP, PRIO, PRMS, PROB, PRSP, PRSU, PRSW, PRTR, and PRWL

### /PRINT or /P

**Type:** OMEGAMON INFO-line command  
**Description:** Prints the current logical screen. When the screen prints, a >LOGGED< message appears on the INFO-line.  
**Note:** The page limit set with the .SET command does not affect the /PRINT command.  
**Related Information:** None

### PRI0

**Type:** OMEGAMON Minor command
**Description:** Displays I/O service units. If there are no transactions in the corresponding period, this command does not display a value. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Minor of: PRDI

Other Performance Group information minors: PRCP, PRDM, PRMS, PROB, PRSP, PRSU, PRSW, PRTR, and PRWL

---

**PRM**

**Type:** OMEGAMON Immediate command

**Description:** Displays current values of the OMEGAMON startup command parameters. This command displays applicable OMEGAMON startup parameters in the following order.

- **IOMODE**=cc: Current OMEGAMON I/O mode. This is the 2-character code entered as the mode in the startup parameters.
- **SYS**=cccc: Current OMEGAMON system ID. This is the same system ID that appears on the INFO-line.
- **DIR**=cccc: Director system ID. This ID only appears when the current OMEGAMON is in collector mode.
- **USER**=cc: User profile suffix. This is the same suffix that appears on the INFO-line.
- **ROWS**=nn: Number of rows on the physical terminal.
- **LROWS**=nnn: Number of logical rows for the output area.
- **COLS**=nnn: Number of columns on the physical terminal.
- **UNIT**=cuu: Terminal address of a dedicated OMEGAMON session.

**Related Information:** None

---

**PRMS**

**Type:** OMEGAMON Minor command

**Description:** Displays MSO service units. If there are no transactions in the corresponding period, this command does not display a value. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Minor of: PRDI

Other Performance Group information minors: PRCP, PRDM, PRIO, PROB, PRSP, PRSU, PRSW, PRTR, and PRWL

---

**PROB**

**Type:** OMEGAMON Minor command

**Description:** Displays objective number for this period. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.
Related Information: Minor of: PRDI
Other Performance Group information minors: PRCP, PRDM, PRIO, PRMS, PRSP, PRSU, PRSW, PRTR, and PRWL

PROC
Type: OMEGAMON Minor command
Description: Displays procedure stepname. PROC displays **INIT** when a batch job is moving between steps. This tells you when the CPU time figures pertain to the initiator rather than to your job.
Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space Identification minors: ASID, DMNA, .DMPxx, DOM#, PERD, PERF, PGNA, and STEP

PRSP
Type: OMEGAMON Minor command
Description: Displays average response time. If there are no transactions in the corresponding period, this command does not display a value. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.
Related Information: Minor of: PRDI
Other Performance Group information minors: PRCP, PRDM, PRIO, PRMS, PROB, PRSU, PRSW, PRTR, and PRWL

PRSU
Type: OMEGAMON Minor command
Description: Displays total service units in period. If there are no transactions in the corresponding period, this command does not display a value. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.
Related Information: Minor of: PRDI
Other Performance Group information minors: PRCP, PRDM, PRIO, PRMS, PROB, PRSP, PRSW, PRTR, and PRWL

PRSW
Type: OMEGAMON Minor command
Description: Displays number of swaps in period. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.
Related Information: Minor of: PRDI
Other Performance Group information minors: PRCP, PRDM, PRIO, PRMS, PROB, PRSP, PRSU, PRTR, and PRWL
.PRT

**Type:** OMEGAMON Immediate command

**Description:** Prints the specified portion of the screen to the REPORT file.

**.PRTc**

Without an argument, .PRT prints a screen image from the INFO-line to the line that contains the .PRT command. After the partial screen prints, .PRT changes to a comment. The optional argument H (.PRTH) prevents the .PRT command from commenting itself out so that it logs these lines continually.

**Related Information:** None

PRTR

**Type:** OMEGAMON Minor command

**Description:** Displays number of transactions in period. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Minor of: PRDI

Other Performance Group information minors: PRCP, PRDM, PRIO, PRMS, PROB, PRSP, PRSU, PRSW, and PRWL

PRWL

**Type:** OMEGAMON Minor command

**Description:** Displays workload level of all transactions for period. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Minor of: PRDI

Other Performance Group information minors: PRCP, PRDM, PRIO, PRMS, PROB, PRSP, PRSU, PRSW, and PRTR

PSAn

**Type:** OMEGAMON Minor command

**Description:** Dumps Prefixed Storage Area for the processor specified, where n is the number of the processor. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Note:** Multiprocessors use a technique called storage prefixing to access the PSA. When you use the PSAn command to dump the PSA of the processor on which OMEGAMON is running, you see the contents of the SYSGEN PSA, which might not match what you see when you dump location 0 using the MLST command.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn,
PSIO

**Type:** OMEGAMON Minor command

**Description:** Displays total SIOs issued for page dataset.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PAVL, PAVS, PDVT, and PXFR

PTAP ccccc

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about magnetic tape devices by volser pattern ccccc (XA). If an asterisk is the last character in the volser pattern, any character after that point meets the selection criteria. For example, the pattern VS* displays the volumes VSRESA, VSAM01, VS, and so on.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnbn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccc, PNDnnn, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SSDKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

PVT

**Type:** OMEGAMON Minor command

**Description:** Dumps RSM Paging Vector Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

/PWD

**Type:** OMEGAMON INFO-line command

**Description:** Specifies an OMEGAMON password or reauthorizes a session. Secured commands require entry of a password for execution. You can use the /PWD command in the following ways.

1. To authorize your session for internal security, enter the /PWD command on the INFO-line.

    `/PWD____________`
The system prompts you for a password.

________________ Enter Password

The password does not appear on the screen as you type it. Press Enter after typing the password. If the PASSWORD ACCEPTED message displays, press Enter again to gain access to all secured commands associated with that password, as well as commands associated with lower security levels.

2. To reset the security level to 0 after your authorized session, type /PWD on the INFO-line, but instead of entering a password, press Enter.
   Access to secured commands will be restricted until the password is re-entered.

3. To utilize the relogon feature. The /PWD command can be entered with your user ID to perform the following functions.
   - In dedicated mode, gain access to external security.
   - Log onto an existing OMEGAMON session in VTAM mode and reauthorize external security to your level for the session.

   **Note:** Relogon processing is not available in TSO or ISPF mode.

When you use the /PWD command with your user ID to log onto an existing session, you cannot change or update your password.

**Related Information:** None

**PXFR**

**Type:** OMEGAMON Minor command

**Description:** Displays total pages transferred for page dataset. Append a .R to this command to show the value as a rate of pages per second.

**Related Information:** Minor of: PART

Other Page Dataset minors: PADR, PAER, PANI, PAR2, PAR3, PAR4, PAR5, PAR6, PAR7, PAR8, PAR9, PAS%, PAST, PASZ, PATM, PATP, PVAVL, PAVS, PDVT, and PSIO
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QCB

**Type:** OMEGAMON Minor command

**Description:** Displays enqueues owned by address space.

**QCBnnn**

The variable *nnn* suppresses the first *nnn* lines.

If you enter an *X* in the argument field (*QCB X*), it suppresses any enqueue whose major name is in the Enqueue Exclusion Table that the XQN immediate command defines. The default setting suppresses all dataset enqueues (SYSDSN).

A + after the minor name indicates truncation. An *S* in the label field limits the display of minor names to 43 bytes.

To see all enqueues and reserves, use the XQCB immediate command.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
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.R

**Type:** OMEGAMON Immediate command

**Description:** Repeats the last major command with all following minors $nnn$ times.

$.Rnnn$

The `.R` command repeats all lines from the last major command $nnn$ times, as if you had repeatedly entered the major followed by its minors. The maximum value of $nnn$ is the number of LROWS on your terminal.

The `.R` command is similar to `.RC`, which repeats the last major command with all following minor commands as many times as necessary to display all items selected by the major. However, `.Rnnn` specifies exactly how many times you want the major command repeated.

The `.R` command is most useful as an editing command when you are creating screen spaces.

The `.R` command is similar to the other OMEGAMON line commands (.D, .I) in that if you enter it on top of a line of data, that line is shifted down. Therefore, you do not have to insert a blank line in order to use this command.

**Related Information:** None

RABnnn

**Type:** OMEGAMON Minor command

**Description:** See RABC.

**Related Information:** None

RABCnn

**Type:** OMEGAMON Minor command

**Description:** Dumps Real Storage Manager (RSM) address space block for ASID $nn$ (XA).

By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Use the RABnnn command to dump the RSM address space block for ASID $nnn$.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCan, PCT, PGDT, PGVT, PSAn, PVT, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

RASQ

**Type:** OMEGAMON Minor command
Description: Displays ASM queue length (pre-MVS/SP 4.2). This command shows how the current values affect SRM adjustments to the system.

Related Information: Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

RBEL

Type: OMEGAMON Minor command

Description: Displays percent of real storage below 16M fixed. This command shows how the current values affect SRM adjustments to the system.

Related Information: Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

.RC

Type: OMEGAMON Immediate command

Description: Repeats the last major command and all following minors until all available output is displayed. When you enter a major command that selects a large number of items, such as disks, only one line of output displays. The .RC command automatically repeats a major command and any minor or minors supplied until all available lines of output are displayed. Enter .RC after the major and any desired minors as shown below:

```
   DISK
datr
dsta
   .RC
```

When you press Enter, all online disks are displayed (DISK) along with their unit addresses (DADR) and their mount status (DSTA). The display looks similar to the following:

```
   DISK    VMXA14   VMXA12   OMON28   OMON29   VMXA10   SYSB21   VMXA09   OMSTG1+
datr      140      141      142      143      144      145      146      147
data      Private  Private  Storage  Storage  Private  Private  Private  Private
   DISK    PPSMPE   TSO026   QM0001   IMS100   MTLIB3   DB2002   PPSMP3   TSO022+
datr      148      149      14A      14B      14C      14D      14E      14F
data      Private  Storage  Private  Private  Private  Private  Private  Storage
   DISK    COM001   COM002   COM003   MP310A   PROD10   PROD16   PROD11
   .RC
```

.

Private  Private  Private  Private  Storage  Private  Private
Related Information: None

RCE

Type: OMEGAMON Minor command

Description: Dumps RSM Control and Enumeration area (XA). By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

RCMD

Type: OMEGAMON Major command (Authorized)

Description: Routes MVS and JES2 commands to a desired system in a sysplex.

-RCMDnn sysname [CONS={conid|conname}] ccccc

RCMD requires the action character (-) in column 1. The action character changes to a comment character after execution.

nn The variable nn indicates which operator’s console will receive the response. If you omit nn, the response goes to the master console.

sysname Specifies the system name where the command executes.

conid Specifies which operator’s console issued the command. This operand overrides the nn operand.

conname Specifies the console name from which the command originated.

cccc The variable ccccc is an MVS or JES2 command.

OMEGAMON issues the command (cccc) that you supply via SVC 34.

Related Information: Other Console-Related commands: CONS, CONU, and OCMD

RCP%

Type: OMEGAMON Minor command

Description: Displays the percentage of step CPU time used.

When TIME=1440 or TIME=NOLIMIT is specified to turn off job step timing, ‘N/A’ is displayed.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DPRT, DVCT, JCAF, RCPU, SEQN, SRBT, SRB2, and TCP2

RCPD

**Type:** OMEGAMON Minor command

**Description:** Displays CPU utilization thresholds for demand paging analysis (pre-MVS/SP 4.2). This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

RCPR

**Type:** OMEGAMON Minor command

**Description:** Displays CPU utilization as calculated by RMF.

**Related Information:** Minor of: SYS

Other RMF information commands: .RMF, .RMFS

RCPU

**Type:** OMEGAMON Minor command

**Description:** Displays the CPU time remaining for the job step. (There are other entries with the same name. See the next entry for a description of RCPU as a minor of SYS.)

When TIME=1440 or TIME=NOLIMIT is specified to turn off job step timing, ‘No Limit’ is displayed.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DPRT, DVCT, JCAF, RCP%, SEQN, SRBT, SRB2, and TCP2

RCPU

**Type:** OMEGAMON Minor command

**Description:** Displays CPU utilization. (There are other entries with the same name. See the previous entry for a description of RCPU as a minor of address space majors.) This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK
RCT

Type: OMEGAMON Minor command

Description: Dumps SRM Resource Control Table. (There are other entries with the same name. See the next entry for a description of RCT as a minor of SYS.) By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

RCT

Type: OMEGAMON Minor command

Description: Provides title line. (There are other entries with the same name. See the previous entry for a description of RCT as a minor of DUMP.) RCT provides a title line under which the output for the other SRM information commands can appear. The Low and High values come from the user’s PARMLIB. The Effect column states how the current values affect SRM adjustments to the system.

Related Information: Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

RCTA

Type: OMEGAMON Minor command

Description: Displays current SRM averages (XA and ESA 3.1.0E). RCTA displays the Unreferenced Interval Count (UIC), page fault rate, CPU utilization, and ASMQ average values. The ASMQ is a queue of page I/O requests that are unserviced or incomplete. The SRM averages these values over the last MPL adjustment interval.

Note: SRM does not maintain the ASMQ count on MVS 3.1.3 and higher.

The average CPU utilization value calculated by the SRM varies from 0 to 100 percent, even if there are two or more processors active. The value is a utilization for the system as a whole. This value can actually be set by the SRM to 128 percent. This is a signal that, during the previous SRM interval, none of the processors ever entered the wait state, and more work (up to 28 tasks) is waiting for the CPU.

Related Information: Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK
RCTH

**Type:** OMEGAMON Minor command

**Description:** Displays current SRM high thresholds (ESA). UIC, paging, CPU utilization, and ASMQ high values appear. The ASMQ is a queue of page I/O requests that are unserviced or incomplete. The SRM averages this value over the last 20 seconds.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

RCTI

**Type:** OMEGAMON Minor command

**Description:** Displays number of samples (ESA). Usually 30 samples are taken.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

RCTL

**Type:** OMEGAMON Minor command

**Description:** Displays current SRM low thresholds (ESA). Unreferenced Interval Count (UIC), paging, CPU utilization, and ASMQ low values appear. The ASMQ is a queue of page I/O requests that are unserviced or incomplete. The SRM averages this value over the last 20 seconds.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

RDPG

**Type:** OMEGAMON Minor command

**Description:** Displays demand paging rate (pre-MVS/SP 4.2). This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK
RENM

**Type:** OMEGAMON Immediate command

**Description:** Renames a screen space. RENM renames screen spaces in main storage or in the user-defined screen space library pointed to by ddname RKOMPCSV. It does not rename Candle-supplied screen spaces in the library pointed to by ddname RKOMPROC.

**RENMc oldname newname**

- Enter one of the following arguments in column 6 to specify the ddname of the location of the screen spaces library.
  - **B** or **D** or **I**
- **RENMc oldname newname**

- **ccccccc**
  - Specifies the screen space name (1 to 8 characters)
- **a**
  - One of three arguments that may follow the screen space name. The argument is separated from the screen space name with a comma (,).
  - **B**
    - Replaces in both main storage and RKOMPCSV. This is the default.
  - **D**
    - Replaces in RKOMPCSV only.
  - **I**
    - Replaces in main storage (in-storage) only.

**Related Information:** None

/REP

**Type:** OMEGAMON INFO-line command

**Description:** Replaces the existing saved screen space of the same name. (There are other entries with the same name. See the next entry for a description of /REP Immediate command, which sets printer characteristics for the REPORT file.) Use /REP in place of /SAVE if you want to replace an existing saved screen space in the user-defined screen space library pointed to by ddname RKOMPCSV.

**/REP cccccccc,a**

- **ccccccc**
  - Specifies the screen space name (1 to 8 characters)
- **a**
  - One of three arguments that may follow the screen space name. The argument is separated from the screen space name with a comma (,).
  - **B**
    - Replaces in both main storage and RKOMPCSV. This is the default.
  - **D**
    - Replaces in RKOMPCSV only.
  - **I**
    - Replaces in main storage (in-storage) only.

The following example replaces the current screen space SAMPLE with the new modified version of screen space SAMPLE in both main storage and RKOMPCSV.

**/REP SAMPLE,B**

**Related Information:** None
.REP

Type:  OMEGAMON Immediate command

Description:  Displays and sets printer characteristics for the REPORT file. (There are other
entries with the same name. See the previous entry for a description of .REP INFO-line
command, which replaces the existing saved screen space of the same name.)

When you enter .REP, a series of keywords appears to let you set printer characteristics. If
you are changing more parameters than will fit on one line, use the OUTP command instead.
The keywords for .REP (and .XLG) duplicate the minors of the OUTP major.

When you change any of the parameters (except FOLD) and press Enter, OMEGAMON
automatically spins off the REPORT file and reallocates a new one.

SYSOUT= SYSOUT class.
HOLD= Specifies whether output is to be placed in the hold queue.
COPIES= Specifies the number of copies to print.
FORMS= Specifies the form on which to print.
DEST= Destination, user ID, or both (separated by a period, colon, or slash) to receive
report.
FOLD= Folds lowercase characters to uppercase.

The following keywords will also appear if their default values have been modified previously.
If not, you can type them in and define a new value.

ID1= Requests OMEGAMON session-produced separator pages and page headers.
The argument for ID1 can be:

* OMEGAMON generates separator pages and page headers with
  the appropriate job name printed in block letters on the pages.
  This is the default.
*NONE* OMEGAMON does not generate separator pages and page
  headers.
cccccccc OMEGAMON generates separator pages and page headers with
cccccccc printed in block letters on the pages. cccccccc is up to 8
user-defined characters.

ID2= Defines up to 16 characters on the left of the separator page.
ID3= Defines up to 16 characters in the center of the separator page.
ID4= Defines up to 16 characters on the right of the separator page.
DDNAME= Overrides standard OMEGAMON ddnames.

If you change any parameter other than HOLD=, OMEGAMON spins off the XLFLOG file
and creates a new one.
If SYSOUT is active, then ddname is inactive and vice versa. The following list shows the parameters in effect and the default settings for SYSOUT or ddname.

**Parameters for the Default Values for SYSOUT and DDNAME**

SYSOUT=  A and the DDNAME is (inactive)
HOLD=  NO and the DDNAME is (inactive)
COPIES=  1 and the DDNAME is (inactive)
FORMS=  *NONE* and the DDNAME is (inactive)
DEST=  *NONE* and the DDNAME is (inactive)
DDNAME=  (inactive) and the DDNAME is OMREPORT
FOLD=  YES and the DDNAME is YES
ID1=  jobname and the DDNAME is jobname
ID2=  (blank) and the DDNAME is (blank)
ID3=  (blank) and the DDNAME is (blank)
ID4=  (blank) and the DDNAME is (blank)

**Related Information:** OUTP

/RESHOW

**Type:** OMEGAMON INFO-line command

**Description:** Reshows the previously saved version of the current screen space. The /RESHOW command, set to a PF key, gives you the convenience of refreshing your original screen space with a single keystroke after you have made temporary alterations.

**Related Information:** None

RESM

**Type:** OMEGAMON Minor command

**Description:** Restarts the DEXAN data collector. For example:

```
DEX >> DX9004 Collector suspended since 10:54:56 Cycles=619 Elap 25:03 MN <<
RESM >> DX0003 Collector being resumed  <<
```

**Note:** RESM restarts the DEXAN data collector after you have suspended it with the SUSP minor command. If you have terminated it with the END minor, you must start all over again with BEGN.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn
RIT

**Type:** OMEGAMON Minor command

**Description:** Dumps RSM Internal Table (XA). By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RCE, RCT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

RMAP

**Type:** OMEGAMON Minor command

**Description:** Displays map of MVS/XA real memory (XA, ESA). RMAP shows a map of system virtual storage, showing how much central storage (in bytes) is currently assigned to each area. After RMAP lists all of the virtual storage backed by real frames, it lists any and all queues of real storage frames not associated with virtual storage, if there is at least one item in the queue.

The RSM internal frame queues list below the PSA display line. To list, a queue must have something in it. These queues are:

- **Available**
  Frames on the pageable frame queue and marked as available (such as not having paging I/O in progress).

- **DataOnly Spaces**
  Real storage in use for data spaces (MVS/SP 3.1.0 or later).

- **DataOnly Space Mgmt**
  Real storage in use for data space management (MVS/SP 3.1.0 or later).

- **Shared Fixed**
  Real storage in use for shared frames (MVS/SP 5.2 or later).

- **Shared Pageable**
  Real storage in use for pageable shared frames (MVS/SP 5.2 or later).

- **BDF**
  Bottom Double Frames—real storage frames used for segment table entries.

- **TDF**
  Top Double Frames—real storage frames used for segment table entries.

- **SQA Reserved**
  Frames reserved by the system, which can be used as SQA in an emergency. Because these frames are reserved for emergencies, they are unavailable for other use.

- **HSA**
  Hardware System Area—used by 308x or above processors. This area is reserved at IMPL time. OMEGAMON displays only the amounts detected by the operating system. Only the operating system can use this storage.

- **SDUMP**
  Real storage buffer frames.

- **DFF**
  Deferred FREEMAIN frames.

- **DAT Off Nucleus**
  Nucleus frames for which Dynamic Address Translation is off.

- **IDA**
  System software frames.
### Flawed
Unusable frames.

### Uninitialized
Frames not used (not initialized).

### Unqueued
Frames not used (not queued to anything).

---

### Related Information:
**Minor of:** SYS

Other system storage minors: CSA, CSAR, ECSA, EMAp, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESPI, ESPM, ESPO, ESPR, ESQA, SQA, and VMAP

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<th>EMAP</th>
<th>MAJOR AREA</th>
<th>REAL</th>
<th>MINOR AREA</th>
<th>NOT/FIX</th>
<th>FIXED</th>
<th>TOTAL</th>
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<td>+</td>
<td>EXTENDED PRIVATE 8,704K</td>
<td>4,444K</td>
<td>4,260K</td>
<td>8,704K</td>
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<tr>
<td></td>
<td>(ELSQA)</td>
<td>20K</td>
<td>4,108K</td>
<td>4,128K</td>
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<tr>
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<td>CSA 1,156K</td>
<td>416K</td>
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<tr>
<td></td>
<td></td>
<td>1,372K</td>
<td>236K</td>
<td>1,608K</td>
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<tr>
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<td>SQA 2,864K</td>
<td>2,864K</td>
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<tr>
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<td>READ/WRITE NUC 548K</td>
<td>548K</td>
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<td>(LSQA) 2,596K</td>
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<td>+</td>
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<td>+</td>
<td>TDF 32K</td>
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<tr>
<td>+</td>
<td>SQA RESERVED 8K</td>
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<td>DAT OFF NUCLEUS 8K</td>
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<td>+</td>
<td>OFFLINE 8K</td>
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<tr>
<td>+</td>
<td>TOTAL FRAMES 48M</td>
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</tbody>
</table>

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RMCA

Type: OMEGAMON Minor command

Description: Dumps SRM Control Area. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSA, PVT, RCE, RCT, RIT, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

RMCT

Type: OMEGAMON Minor command

Description: Dumps SRM Control Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

Related Information: Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSA, PVT, RCE, RCT, RIT, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

.RMF

Type: OMEGAMON Immediate command

Description: Displays Resource Measurement Facility information. The .RMF immediate command displays whether the Resource Measurement Facility (RMF) Monitor I is active and, if it is, the version number and release level, the current interval length, and the cycle time.

Note: The amount of information displayed by .RMF may vary according to the level of RMF that you are running.

```
> .RMF  >> RMF Monitor I active <<
> The RMF version code is 411F; RMF version 4.1.1
> Current Interval Length: 14:56 MN  Cycle Time: 1000 ms
```

When you run OMEGAMON not APF authorized, only this message appears:

>> RMF Monitor I active <<

Related Information: None

.RMFS

Type: OMEGAMON Immediate command

Description: Changes the RMF level set by OMEGAMON.

RMFS nnn
nnn specifies the RMF level for your system. For example, enter RMFS 351 to monitor a system that is running RMF level 3.5.1.

OMEGAMON now sets the RMF level dynamically when you initialize it. However, OMEGAMON cannot correctly set the RMF level if RMF is not running, or if OMEGAMON is not APF authorized. OMEGAMON therefore selects a default RMF setting. If this setting is not correct, you can change it with RMFS. RMFS cannot change the RMF level setting when OMEGAMON has dynamically determined the correct level. Use the SYS major command with the ENV minor to display the level of RMF that your system is running.

**Related Information:** None

---

**RMPT**

**Type:** OMEGAMON Minor command

**Description:** Dumps SRM Parameter Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, SAREnn, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

---

**RPAG**

**Type:** OMEGAMON Minor command

**Description:** Displays page fault rate. The page fault rate is the sum of page-ins and reclaims. This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

---

**RPDD**

**Type:** OMEGAMON Minor command

**Description:** Displays page delay time thresholds for demand paging analysis (pre-MVS/SP 4.2). This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDL, RREA, RTPG, RTPI, RUIC, and THNK
RPDL

**Type:** OMEGAMON Minor command

**Description:** Displays paging delay time in milliseconds (pre-MVS/SP 4.2). This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RREA, RTPG, RTPI, RUIC, and THNK

RREA

**Type:** OMEGAMON Minor command

**Description:** Displays percent of total real storage fixed. This command shows how the current values affect SRM adjustments to the system.

**Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, RUIC, and THNK

RSFnnnn

**Type:** OMEGAMON Minor command

**Description:** Resets FOF or FON command and places performance group nnnn back into the pool of performance groups eligible for monitoring. The RSF command is advantageous because it places a performance group that previously had been included in (FON) or excluded from (FOF) DEXAN data collection back into the pool of performance groups eligible for dynamic selection. For example, if you used the FON1 command to monitor period one of performance group 1, and later used FOF1 to stop monitoring period one of performance group 1, DEXAN would not monitor performance group 1 the next time it dynamically selected performance groups, which would be at the next clear interval. However, in this same example, if you used RSF1 instead of FOF1, performance group 1 would be dynamically (automatically) selected at the next clear interval unless the NUMF value was 1.

**Related Information:** Minor of: DEX
Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn,CNTnnnn, CNTAnn, CNTFnnn, CNTJnn,CNTS,END,FLST,FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn

RSPnnnn

**Type:** OMEGAMON Minor command

**Description:** Sets threshold for average total device response time > nnn milliseconds. (There are other entries with the same name. See the following entry for an explanation of RSP as a minor of DEX.)

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxxxx, LCU xxx xxx, LDSKxxxx, LGRAxxx, LTAPxxxx, LUR xxx, PDSK cccccc, PNDnnn, PTAP cccccc, SCHRxx, SCOMxxx, SCTCxxx, SDKxxxx, SGRAxxx, STAPxxx, SURLxx, and XDSK

RSPnnnn

**Type:** OMEGAMON Minor command

**Description:** Resets the POF or PON command and puts performance group nnnnn back into pool of performance groups eligible for DEXAN monitoring. (There are other entries with the same name. See the previous entry for an explanation of RSP as a minor of STAT.)

The advantage of using the RSP command is that it places a performance group that previously had been included or excluded with either the PON or POF commands respectively into the pool of performance groups eligible for dynamic selection. For example, if you used the PON17 command to monitor performance group17 and later used POF17 to stop monitoring performance group17, DEXAN would not monitor performance group17 the next time it dynamically selected performance groups, which would be at the next clear interval. However, in this same example if you used RSP17 instead of POF17, performance group17 would be dynamically (automatically) selected at the next clear interval unless the NUMP value was 17 or less.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnnn, CNTJnn, CNTS, END, FLST, FOFRnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSPnnnn, STIMnn, SUSP, SYNC, THRS, XCTnnnn, and XPGnnnn
**RTA**

**Type:** OMEGAMON Immediate command

**Description:** Displays response time information for individual TSO users and groups of TSO users. The RTA™ command also monitors past response time over the last 16 intervals. You can set an interval to any number of minutes. This command supports ACF/VTAM™ release 3.1.1 and above. This command requires:

- APF-authorization
- an active VTAM internal trace. OMEGAMON automatically issues the following command:
  
  ```
  F NET,TRACE,TYPE=VTAM,OPTION=PIU
  ```

- End-to-End Response Time Feature

The RTA command syntax is described below.

- **IRTA [blank]**
- **IRTA SUMMARY**
- **IRTA DISPLAY Group({group name})**
- **RTA ADD Group({group name}) Text({any text}) Thresh({h},{n},{t})**
- **RTA DELETE Group({group name})**
- **RTA OPTIONS Refresh({m}) Thresh({h},{n},{t}) Line({c})**

**I** Indicates the optional command label and can be any of the following:

- **N** causes RTA to skip display of non-SNA terminal.
- **X** causes RTA to skip display of terminals that have not exceeded thresholds.
- **Z** causes RTA to skip display of terminals that have no transactions.

**[blank]** Default; displays all users in all groups.

- **SUMMARY** Displays a summary of each group.
- **DISPLAY** Displays the indicated group of one or more TSO userids. (* used in the last position indicates several userids.)
- **ADD** Adds a group of TSO userids to monitor. (* used in the last position indicates several userids.)

**Text** Gives a description of the group (up to 30 characters).

**Thresh** Sets the following three threshold values (in seconds) for determining poor response time for this group:

- **h** indicates host threshold
The following display is an example of the RTA command with no operands:
The following fields appear on the RTA display:

- **Group/Userid**: Groups and userids being monitored. Place the cursor under the first character of a group name or userid to display its terminal LU name and programmer name field.
- **Past History**: Status over the last 16 intervals. Red bars indicate exceeded thresholds, green dots indicate normal conditions.
- **Current Status**: Status during the current interval. Red bars indicate a threshold is currently exceeded.
- **Transaction Count**: Number of transactions in the current interval.
- **Host Response**: Average host response time in the current interval.
- **Network Response**: Average network response time in the current interval.
- **Total Response**: Average total response time in the current interval.
- **Summary**: Total transaction count and average host, network, and total response times for the whole group in the current interval.

**Related Information**: See Address Space Information Commands in “Command Groupings” on page 17.

**.RTN**

**Type**: OMEGAMON Immediate command

**Description**: Terminates an ASF or TSF sequence and returns to the calling screen space. The .RTN command is required at the bottom of the last screen space in an Automatic Screen Facility (ASF) or Timed Screen Facility (TSF) sequence. It returns to the calling screen space and re-enables exception analysis for further automatic calls.

```
.n.RTNcc aaaaaaaaa
```

- **n**: The optional label n specifies the number of cycles to delay the return to the calling screen space. The value of n can be the numbers 1 to 9 or the letters A to Z (representing 10 to 35). Each time the screen updates, n decrements by 1. When n=0, the current screen executes and OMEGAMON fetches the next screen space. For example, the following command returns to the calling screen space after 7 cycles.

- **cc**: The variable cc is the NR (no reset) argument. It prevents the .RTN command from automatically resetting the automatic update interval and the log status.

- **aaaaaaaaa**: This optional argument specifies a screen space for ASF or TSF to return to other than the calling screen space.

The .RTN command automatically resets the automatic update interval and the log status to that in effect when the ASF or TSF sequence began.

We recommend that you use the definition mode (/DEF ON) when creating screen spaces that contain the .RTN command.
The commands that you need to set up and operate ASF are:

- XACB: Sets parameters and controls the operation of ASF for each individual exception.
- OPTN: Turns the ASF feature ON and OFF (with the ASF keyword).
- /LOG OUT: Sends the REPORT data to the JES output queue and reallocates the output file. If you want to save the command in a screen space, use the .LOGOUT immediate command instead of the /LOG OUT INFO-line command.

The commands that you need to set up and operate TSF are:

- TSF: Defines entries for TSF.
- OPTN: Turns the TSF feature ON and OFF (with the TSF keyword).
- /LOG OUT: Sends the REPORT data to the JES output queue and reallocates the output file. If you want to save the command in a screen space, use the .LOGOUT immediate command instead of the /LOG OUT INFO-line command.

Related Information: None

### RTPG

- **Type:** OMEGAMON Minor command
- **Description:** Displays total paging rate.
- **Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPI, RUIC, and THNK

### RTPI

- **Type:** OMEGAMON Minor command
- **Description:** Displays percent of I/O interrupts handled via TPI. This command shows how the current values affect SRM adjustments to the system.
- **Related Information:** Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPI, RUIC, and THNK

### RUIC

- **Type:** OMEGAMON Minor command
- **Description:** Displays unreferenced interval count. This command shows how the current values affect SRM adjustments to the system.
- **Related Information:** Minor of: SYS
Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, and THINK
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</table>
/S

**Type:** OMEGAMON INFO-line command

**Description:** See /SAVE.

**Related Information:** None

SADR

**Type:** OMEGAMON Minor command

**Description:** Displays unit address of each swap dataset, as shown in the screen below.

```
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>sadr</td>
<td>0326</td>
<td>0326</td>
<td>1145</td>
<td>2320</td>
<td>3333</td>
<td>4324</td>
<td>59CC</td>
<td>6336</td>
</tr>
</tbody>
</table>
```

**Related Information:** Minor of: SART Other swapping minors: SAER, SAS%, SAST, SASZ, SAVL, SAVS, SDVT, and SSRT

SAER

**Type:** OMEGAMON Minor command

**Description:** Displays error count of each swap dataset.

**Related Information:** Minor of: SART

Other swapping minors: SADR, SAS%, SAST, SASZ, SAVL, SAVS, SDVT, and SSRT

SAREnn

**Type:** OMEGAMON Minor command

**Description:** Dumps Swap Activity Reference Table entry nn, where nn is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1. To display the entire table, use SART.

**Related Information:** Minor of: DUMP Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCA nn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SART, SCVT, SPL, WAMPnn, WAMT, and WMST

SART

**Type:** OMEGAMON Major command

**Description:** Selects swap dataset. (There are other entries with the same name. See the next entry for a description of SART as a minor of DUMP.) SART displays only the middle...
level qualifier of the dataset name. For example, for the dataset SYS1.VSYSA21.PLPA, only VSYSA21 appears.

**Related Information:** Major of: SADR, SAER, SAS%, SAST, SASZ, SAVL, SAVS, SDVT, and SSRT

---

**SART**

**Type:** OMEGAMON Minor command

**Description:** Dumps Swap Activity Reference Table. (There are other entries with the same name. See the previous entry for a description of SART as a major command.) By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1. To display a single entry in the table, use SAREnn.

**Related Information:** Minor of: DUMP Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SCVT, SPL, WAMPnn, WAMT, and WMST

---

**SAS%**

**Type:** OMEGAMON Minor command

**Description:** Displays percent of swap datasets used. This is calculated as \(\frac{(SASZ-SAVL)}{SASZ}\).

**Related Information:** Minor of: SART

Other swapping minors: SADR, SAER, SAST, SASZ, SAVL, SAVS, SDVT, and SSRT

---

**SAST**

**Type:** OMEGAMON Minor command

**Description:** Displays swap status of swap datasets.

**Related Information:** Minor of: SART

Other swapping minors: SADR, SAER, SAS%, SASZ, SAVL, SAVS, SDVT, and SSRT

---

**SASZ**

**Type:** OMEGAMON Minor command

**Description:** Displays size in swap sets.

**Related Information:** Minor of: SART

Other swapping minors: SADR, SAER, SAS%, SAST, SAVL, SAVS, SDVT, and SSRT
/SAVE or /S

**Type:** OMEGAMON INFO-line command

**Description:** Saves the specified new screen space.

/SAVE cccccccc,a

- **ccccccc** Specifies the screen space name (1 to 8 characters). The screen space name must be a unique alphanumeric name. It must begin with an alpha character and can contain national characters ($, *, or &). If the name you want to assign already exists, use /REP instead of /SAVE.
- **a** Specifies one of three arguments that may follow the screen space name. The argument is separated from the screen space with a comma (,).

- **B** Saves the screen space to both RKOMPCSV and main storage (in-storage screen facility).
- **D or I** Saves the screen space to RKOMPCSV only.

**Note:** Since screen spaces are saved to the library pointed to by ddname RKOMPCSV, the /SAVE command works only if RKOMPCSV was created and properly concatenated at installation. If you are unable to save your screen space, or if your screen space was successfully saved but OMEGAMON is not accessing it, check with your installer for details about RKOMPCSV.

This next example saves the current screen space SAMPLE in both main storage and the dataset pointed to by ddname RKOMPCSV.

/SAVE SAMPLE,B

**Related Information:** None

SAVL

**Type:** OMEGAMON Minor command

**Description:** Displays available swap sets.

**Related Information:** Minor of: SART
Other swapping minors: SADR, SAER, SAS%, SAST, SASZ, SAVS, SDVT, and SSRT

SAVS

**Type:** OMEGAMON Minor command

**Description:** Displays volume serial of DASD.

**Related Information:** Minor of: SART
Other swapping minors: SADR, SAER, SAS%, SAST, SASZ, SAVL, SDVT, and SSRT
SBIA

**Type:** OMEGAMON Minor command

**Description:** Displays number of blocks moved in from auxiliary storage.

\[ cSBIA.R S M H \]

where \( c \) represents the plot symbol, \( R \) displays total blocks moved as a rate per second, \( S \) is an alternate to \( R \) to display rate per second, \( M \) displays total blocks moved as a rate per minute, and \( H \) displays total blocks moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIE, SBTA, SBTE, SMIG, SPIA, SPIE, SSPI, SSPO, SSTA, and SSTE

SBIE

**Type:** OMEGAMON Minor command

**Description:** Displays number of blocks moved in from expanded storage.

\[ cSBIE.R S M H \]

where \( c \) represents the plot symbol, \( R \) displays total blocks moved as a rate per second, \( S \) is an alternate to \( R \) to display rate per second, \( M \) displays total blocks moved as a rate per minute, and \( H \) displays total blocks moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIA, SBTA, SBTE, SMIG, SPIA, SPIE, SSPI, SSPO, SSTA, and SSTE

SBTA

**Type:** OMEGAMON Minor command

**Description:** Displays number of blocks stolen and moved to auxiliary storage.

\[ cSBTA.R S M H \]

where \( c \) represents the plot symbol, \( R \) displays total blocks moved as a rate per second, \( S \) is an alternate to \( R \) to display rate per second, \( M \) displays total blocks moved as a rate per minute, and \( H \) displays total blocks moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIA, SBIE, SBTE, SMIG, SPIA, SPIE, SSPI, SSPO, SSTA, and SSTE

SBTE

**Type:** OMEGAMON Minor command
**Description:** Displays number of blocks stolen and moved to expanded storage.

cSBTE.R | .S | .M | .H

where c represents the plot symbol, .R displays total blocks moved as a rate per second, .S is an alternate to .R to display rate per second, .M displays total blocks moved as a rate per minute, and .H displays total blocks moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIA, SBIE, SBTA, SMIG, SPIA, SPIE, SSPI, SSPO, SSTA, and SSTE.

---

**SCAL**

Type: OMEGAMON Minor command

**Description:** Displays the rate of physical swap-outs in pages/second.

cSCAL.R

where c represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCCT, SCTS, SCUS, and SCXS.

---

**.SCC**

Type: OMEGAMON Immediate command

**Description:** Sets display color or highlighting for text and commands by type. The .SCC command displays and sets options that determine how highlighting and/or color is used when an OMEGAMON screen is sent to a user’s terminal. Since display characteristics depend on the type of terminal you are supporting, .SCC contains keywords that, in combination, will accommodate any of the various 3270-type devices. Here is the screen display format:

```
  .SCC
  : Display=cccccc                     ProfileDefinitionMode=OFF
  : ExtendedHighlighting=ccc
  : Major=cccccccc  Minor=cccccccc  Immed=cccccccc  Default=cccccccc
  +   XACB Display Options:
  : Clr1=cccccccc  Clr2=cccccccc  Clr3=cccccccc  Clr4=cccccccc
  : Clr5=cccccccc  Clr6=cccccccc  Clr7=cccccccc
```

---
Device Support

This discussion divides color/highlighting capabilities into the following device categories:

**Non-EDS**
- Devices that do not support an extended data stream (EDS), but support highlighting. There are two types of non-EDS devices.
  - Monochrome non-EDS, which use high or low intensity to distinguish fields in a display.
  - Color non-EDS, which distinguish between high and low intensity by using different colors in a display. The colors displayed depend on whether the device is a 2-base color or 4-base color device, and whether a field is protected or unprotected. For example, most 4-base color devices display high intensity fields in red (unprotected) and white (protected), low intensity fields in green (unprotected) and blue (protected).

**Monochrome EDS**
- Monochrome devices that support the extended data stream. A field may be displayed in either high or low intensity in combination with the extended highlighting attributes (blinking, reverse video, and underscoring).

**Color EDS**
- Color devices that support the extended data stream. A field may be displayed in any of the 7 extended colors in combination with the extended highlighting attributes.

Profile Definition Mode

Before customizing your color/highlighting definitions, determine which mode of .SCC is appropriate. The mode is controlled by the `ProfileDefinitionMode` keyword, as shown below.

```
.SCC
  : Display=ccccccc
  : ExtendedHighlighting=ccc
  ProfileDefinitionMode=ON/OFF
```

**OFF**
- Changes to .SCC affect only the current OMEGAMON session.

**ON**
- Intended for use when creating or changing a user profile. After defining the settings, you must issue a profile save command in order for these definitions to be saved and reused. (They may also take effect during the current session if you subsequently change the value of the `Display=` keyword.)

Setting this keyword to ON enables you to configure options for different types of terminals on the same screen.

Keywords and Values

The following sections describe the remainder of the .SCC keywords and valid values.

For any keyword or value, you need only type as many letters as it takes to make an entry unique. You may type any keyword and value on the command line after .SCC and bypass the multi-line display. The command comments itself out and flags itself DONE at the end of the line. This facility allows for changes to .SCC values from within screen spaces.
Display Intensity or Color

The `Display` keyword has 4 possible settings.

- **BASIC** Allows you to set HIGH or LOW intensity for fields on monochrome terminals or non-EDS color terminals.
  
  **Note:** When the BASIC display option is used on color devices that can support EDS, OMEGAMON will treat that device as a four-base color terminal (non-EDS).

- **HIGH** Specifies that all fields be displayed in high intensity.

- **LOW** Specifies that all fields be displayed in low intensity.

- **COLOR** For color EDS terminals only, allows you to specify the color of each field.

**Note:** In cases where OMEGAMON is given a color value instead of an intensity value or vice versa, it makes the following internal conversion:

- On a non-EDS terminal, values of Green and Blue translate to low intensity; all other color values translate to high intensity.
- On an EDS terminal, a value of HI translates to the color Red; a value of LO translates to the color Green.

**Extended Highlighting**

The `ExtendedHighlighting` keyword is used only with devices that support the extended data stream.

- **OFF** Extended highlighting features are not available. Use with non-EDS devices.
- **ON** Extended highlighting features are available. When `Display=COLOR`, this value is automatically set to ON. (Extended attributes are not supported in ISPF mode.)

**Caution**

Do not set `ExtendedHighlighting=ON` unless you have a terminal that supports an extended data stream (or unless you have `ProfileDefinitionMode=ON`). If you do this accidentally, you may get a PROGnnn or a screen erase error. You may press the ATTN or PA1 key to resume the session, but be aware that this action also clears the current security authorization and the current screen space.

**Display Fields**

Following is the display format of `.SCC` with `ProfileDefinitionMode=ON`. It shows the display field keywords and valid values. For the `Display=COLOR` option, color names can
be Red, Green, White, Blue, Pink, Yellow, or Turquoise. For the **Display=BASIC** option, highlighting values can be HIGH or LOW. The value of the **Default** keyword can be used as a variable definition for the Major, Minor, Immed, and XACB Display Options. In the figure, the Default value is abbreviated as **DEF**.

The field names that you can control with **.SCC** are:

- **Major**: Controls color or highlighting for major commands and their output.
- **Minor**: Controls color or highlighting for minor commands and their output.
- **Immed**: Controls color or highlighting for immediate commands and their output.
- **Default**: Controls color or highlighting for other unprotected fields (for example, error message text, help text).
- **XACB Options**: Controls exception analysis message text. The keywords Clr1 through Clr7 can be used as substitutes for the color names (Red, Blue, and so on) or highlighting (HI or LO) when customizing exception messages with the XACB command.

The following table describes the color/highlighting settings for **.SCC** according to the type of terminal you are supporting.
Related Information: See Table 1 on page 378.

Table 1. .SCC Keywords and Possible Settings

<table>
<thead>
<tr>
<th>If you have...</th>
<th>And you want...</th>
<th>Use these keywords...</th>
</tr>
</thead>
</table>
| A non-EDS terminal | some fields in high intensity and some fields in low intensity | Display=BASIC  
ExtendedHighlighting=OFF  
Major, Minor, Immed, XACB options=HI |LO|DEF  
Default=HI |LO |
| all fields in high intensity | Display=HI  
ExtendedHighlighting=OFF  
(All other settings default to HI.) |
| all fields in low intensity | Display=LO  
ExtendedHighlighting=OFF  
(All other settings default to LO.) |
| A monochrome EDS terminal | some fields in high intensity and some fields in low intensity, plus blinking, underscoring, or reverse video | Display=BASIC  
ExtendedHighlighting=ON  
Major, Minor, Immed, XACB options=HI |LO |DEF  
Default=HI |LO |
| all fields in high intensity, plus blinking, underscoring, or reverse video | Display=HI  
ExtendedHighlighting=ON  
(All other settings default to HI.) |
| all fields in low intensity plus blinking, underscoring, or reverse video | Display=LO  
ExtendedHighlighting=ON  
(All other settings default to LO.) |
| A color EDS terminal | to specify the color of each field, plus blinking, underscoring, or reverse video | Display=COLOR  
ExtendedHighlighting=ON  
Major, Minor, Immed, XACB options=color |DEF  
Default=color |

SCDW

Type: OMEGAMON Minor command

Description: Displays the rate of swap-outs due to detected waits in pages/second.

cSCDW.R

where c represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.
Related Information:  Minor of: SYS
Other swap count minors: SCAL, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

SCEX

Type: OMEGAMON Minor command
Description: Displays the rate of physical swap-outs due to exchange swaps in pages/second.

cSCEX.R

where c represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.

Related Information:  Minor of: SYS
Other swap count minors: SCAL, SCDW, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

SCHN

Type: OMEGAMON Immediate command (Authorized)
Description: Scans data-only space control blocks for a string of data and displays the location. This command is used to search chained control blocks located in a data-only space for the occurrence of a specific string of data.

aSCHNc jobname, spacename, addr, string, off1, off2, plen

a  A required action character in column 1:

- Changes to a comment character (>) after command executes.
< Does not change to a comment character after command executes. Use this action character to repeat the command.

c  Specifies the format of the output:

B or dump format (default)
C character only
X hex only

jobname  The jobname or ASID in decimal of the owner of the data-only space.
You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

**offset**
A plus sign (+) or minus sign (-), followed by a hexadecimal number.
- This modifier specifies a location at a known offset (positive or negative) from the anchor address.

**indirect**
Use a question mark (?) as the symbol for 31-bit addressing.
- Use a percent sign (%) as the symbol for 24-bit addressing.
- This modifier indicates that the location pointed to is itself an address.

**string**
The comparison string for the scan. Either a hexadecimal string or a character string surrounded by single quotes.

**off1**
The offset from the beginning of the control block to the location of the comparison string. This value may be preceded by a + or - sign.

**off2**
The offset from the beginning of the control block to the fullword address of the next control block. This value may be preceded with a + or - sign.

**plen**
The length of print display. Default is one line or 16 (X'10') bytes.

SCHN scans data-only space storage until either a match to the string is found, the chain loops, or the address of the next control block is zero. When necessary, an SRB will be scheduled into the address space of the TCB owning the data-only space to be scanned.

This example shows the SCHN display for a data space.

```plaintext
> SCHN MYJOB,MYSFAC,1000,'TEST',0,30,20
+ Storage at 00001100 in dataspace MYSFAC, job MYJOB ASID=12
+ 0000 E3C5E2E3 40C4C1E3 C140E2D7 C1C3C540 *TEST DATA SPACE *
+ 0010 F0F1F2F3 F4F5F6F7 F8F9C1C2 C3C4C5C6 *0123456789ABCDEF*
```

Because of the potential security risk associated with using SCHN, the .DSA command exists to provide an extra level of protection.

**Related Information:** Other Data Space and Hiperspace Storage commands: .DSA, OSPC, SLST, SSCN, and SZAP
SCHRxxx

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about optical character readers belonging to string xxx.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK cccccc, PNDnnn, PTAP cccccc, RSPnnn, SCOMxxx, SCTCxxx, SDKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

SCLF

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of attempted logical swaps in pages/second.

\[ cSCLF.R \]

where \( c \) represents a plot character, and \( .R \) represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

SCLS

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of logical swap-outs in pages/second.

\[ cSCLS.R \]

where \( c \) represents a plot character, and \( .R \) represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

SCLW

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of swap-outs due to long waits in pages/second.

\[ cSCLW.R \]

where \( c \) represents a plot character, and \( .R \) represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS
Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

**SCNQ**

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of physical swap-outs due to enqueue swaps in pages/second.

\[ c \text{SCNQ.R} \]

where \( c \) represents a plot character, and \( .R \) represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCRQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

**SCOMxxx**

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about communications devices belonging to string `xxx`.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxx, LCU xxx xxx, LDSKxxx; n LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccc, PNDnnn, PTAP ccccc, RSPnnn, SCHRxxx, SCTLxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK

**SCPUnn**

**Type:** OMEGAMON Immediate command

**Description:** Displays address spaces using more than \( nn \% \) CPU since the last OMEGAMON cycle.

The scale at the top of the graph is dynamic; OMEGAMON alters the high end of the scale to the smallest value that can accommodate the highest percentage on this invocation of the command.

For each address space over the \( nn \) threshold, SCPU\( nn \) displays CPU utilization (TCB + SRB) over the last cycle. If there is active Enclaves work on the system, an Enclaves entry also appears representing CPU utilization of all Dispatcher Enclaves over the last cycle.
The following is an example of an SCPU display on a system with active Enclaves work:

<table>
<thead>
<tr>
<th>SCPU02</th>
<th>CPU Utilization</th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>120</th>
<th>140</th>
<th>160</th>
<th>180</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td><em>MASTER</em></td>
<td>7.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>KOBV{TAMA}</td>
<td>5.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>TDOM29</td>
<td>2.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>TDOC07B</td>
<td>3.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>CANDLIMS</td>
<td>112.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>CICS</td>
<td>56.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>Enclaves</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>Total</td>
<td>206.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this display, \( nn = 02 \), therefore all active address spaces using more than 2% CPU appear.

The last line of the display is total CPU utilization, not including MVS overhead. This total is the sum of all address space and Enclaves utilizations over the last OMEGAMON cycle. The selection threshold \( (nn) \) does not affect this total. This total is probably not the same as the value that the RCTA minor command reports, because RCTA calculates CPU utilization from machine wait time, averaged over an SRM-defined interval of up to 20 seconds, depending upon CPU models.

The POPT command can be used to set CPU normalization and scaling preferences, and warning and critical thresholds for SCPU. For further information, see POPT.

**Related Information:** Other CPU Utilization command: MCPUnn

**SCRN**

**Type:** OMEGAMON Immediate command

**Description:** Lists screen space member names.

**SCRNc aa bb**

- **c** Enter one of the following arguments in column 6 to specify the source of the member list.
  - **B or** Lists all screen spaces in both the screen space libraries and main storage (default).
  - **D** Lists all screen spaces in the screen space libraries only.
  - **I** Lists all screen spaces in main storage (in-storage) only.

- **aa bb** Lists all screen spaces beginning with characters \( aa \) to \( bb \) (start \( aa \) in column 8).
- **a** Lists all screen spaces beginning with character(s) \( a \) (start \( a \) in column 8).
The following example lists all screens that have names starting with C or D.

```
SCRN C D
```

The next example lists all screen spaces in main storage from PA to PA999999.

```
SCRNI PA*  
```

or

```
SCRNI PA PA
```

**Related Information:** None

---

**SCRQ**

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of physical swap-outs due to request swaps in pages/second.

```
cSCRQ.R
```

where c represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

---

**SCRS**

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of physical swap-outs due to RSM swaps in pages/second.

```
cSCRS.R
```

where c represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRS, SCTI, SCTO, SCTS, SCUS, and SCXS

---

**SCTCxxx**

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about channel-to-channel adapters belonging to string xxx.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors:

CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK ccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SDSKxxx, SGRAxxx, STAPxxx, SURxxx, and XDSK
SCTI

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of swap-outs due to terminal input swaps in pages/second.

\[ c \text{SCTI.R} \]

where \( c \) represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTO, SCTS, SCUS, and SCXS

SCTO

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of swap-outs due to terminal output swaps in pages/second.

\[ c \text{SCTO.R} \]

where \( c \) represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTS, SCUS, and SCXS

SCTS

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of physical swap-outs due to TRANSWAP swaps in pages/second.

\[ c \text{SCTS.R} \]

where \( c \) represents a plot character, and .R represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCUS, and SCXS

SCUS

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of physical swap-outs due to unilateral swaps in pages/second.

\[ c \text{SCUS.R} \]
where \(c\) represents a plot character, and \(.R\) represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors:

SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCTS, and SCXS

**SCVT**

**Type:** OMEGAMON Minor command

**Description:** Dumps Secondary Communication Vector Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1. To display a single entry in the table, use SARE\(nn\).

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCB\(nn\), ASMV, ASVT, ASXB\(nn\), CCT, CMB\(xxx\), CMCT, CPMT, CSD, CVT, DMDT\(nn\), GDA, GVT, ICHP, ICT, LCC\(Ann\), LSCT, MCT, OUCB\(nn\), OUXB\(nn\), PARE\(nn\), PART, PCC\(Ann\), PCT, PGDT, PGVT, P\(S\)An, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SARE\(nn\), SART, SPL, WAMP\(nn\), WAMT, and WMST

**SCXS**

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of physical swap-outs due to ASM swaps in pages/second.

\[cSCXS.R\]

where \(c\) represents a plot character, and \(.R\) represents the rate. The plot has a maximum of 50 points.

**Related Information:** Minor of: SYS

Other swap count minors: SCAL, SCDW, SCEX, SCLF, SCLS, SCLW, SCNQ, SCRQ, SCRS, SCTI, SCTO, SCTS, and SCUS

**SDSKxxx**

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about disks belonging to string \(xxx\).

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHR\(xx\), CCOM\(xx\), CCTC\(xx\), CDSK\(xx\), CGRA\(xx\), CHNP, CON\(nnn\), CTAP\(xx\), CUR \(xx\), DSC\(nnn\), DUT\(nnn\), EDSK \(cccccc\), IOS\(nnn\), LCHR\(xx\), LCOM\(xxx\), LCTC\(xx\), LCU \(xxx\) \(xxx\), LSDK\(xxx\), LGRA\(xxx\), LTAP\(xx\), LUR \(xxx\), PDSK \(cccccc\), P\(N\)D\(nnn\), PTAP \(cccccc\), RSP\(nnn\), SCHR\(xxx\), SCOM\(xxx\), SCTC\(xxx\), SGRA\(xxx\), STAP\(xx\), SUR\(xxx\), and XDSK
SDVT

**Type:** OMEGAMON Minor command  
**Description:** Displays device type of the swap dataset.  
**Related Information:** Minor of: SYS  
Other swapping minors: SADR, SAER, SAS%, SAST, SASZ, SAVL, SAVS, and SSRT

SEEK

**Type:** OMEGAMON Major command  
**Description:** Displays DASD SEEK contention information for a specified device.  
**SEEK Volser(vvvvvv) | Device(cccc) Interval(nn) Samples(nnn)**  
- An action character. The hyphen is required in column 1 on the first execution of the command, and to force re-collection on any subsequent execution.  
**Volser|Device**  
The volser or device number to be analyzed. It is required whenever the action character is specified in column 1. Volser must be 6 characters long; device can be 4 characters long.  
**Interval**  
Indicates how frequently SEEK analysis will be performed. Interval is optional with a default of 10 ms. Valid values are 5–500 ms.  
**Samples**  
Indicates the sampling rate as the number of samples taken per interval. Samples is optional, with a default of 70, and a maximum of 999.

An example of the SEEK command follows:  
**SEEK VOL(OMON28) INTERVAL(100)**  
In this example, SEEK analysis would be performed every 100 milliseconds for 70 samples for volume OMON28. The following figure displays the output from a SEEK major command:

-SEEK VOL(OMON28) INT(10)  
+ Unit=03DC Volser=OMON28 Samples=70 Interval=010 ms Time=08:43:21  
+ Observed Seeks=20 Low Cyl=83 High Cyl=881 Avg Seek=20 cyls

**Related Information:** Major of: DATA, PLOT, and WSIZ nnn

SEQN

**Type:** OMEGAMON Minor command  
**Description:** Displays sequence number on dispatching queue.  
Because XA versions 2.1.7 and above do not maintain sequence numbers, their SEQN screens contain blanks or zeros.  
**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DPRT, DVCT, JCAF, RCP%, RCPU, SRBT, SRB2, and TCP2

**.SET**

**Type:** OMEGAMON Immediate command

**Description:** Sets and displays operation control parameters. The .SET immediate command displays data about the OMEGAMON environment in table form. You can modify or change data on any of the output lines.

<table>
<thead>
<tr>
<th>.SET</th>
</tr>
</thead>
<tbody>
<tr>
<td>: FGOLIMIT    = 64     FGOLOOP = OFF</td>
</tr>
<tr>
<td>: GDEVUCBS    = 200    INTERVAL = 10.00</td>
</tr>
<tr>
<td>: IODELAY     = 5      LOOPCOUNT = 15000</td>
</tr>
<tr>
<td>: LOOPTIME    = 5.00   PAGELIMIT = 400</td>
</tr>
<tr>
<td>: PREKSIZE    = 4096   STATUSMODE = OFF</td>
</tr>
<tr>
<td>: OCMADMSTR   = ON</td>
</tr>
</tbody>
</table>

To modify a setting, move the cursor to the value you want to change, type the new value over the current value, and press Enter to make the change.

**FGOLIMIT** Specifies the number of consecutive .FGO screens that can execute before OMEGAMON detects a loop and sets .FGOLOOP=ON. The maximum number you may specify is 1000.

**FGOLOOP** Turns .FGO screen loop detection ON or OFF. If OMEGAMON detects an .FGO loop, it sets this keyword to ON and then treats subsequent .FGO commands as .SGO commands. (.FGO executes a screen space without displaying it; .SGO displays each screen space it executes.) You can also set .FGOLOOP=ON yourself if you want to test screen spaces you have linked together with .FGO commands.

**GDEVUCBS** Specifies the number of entries in the device name table for the GDEV command. The maximum number is 4000.

**INTERVAL** Specifies the interval time between automatic updates (called an OMEGAMON cycle). The following restrictions apply:
- This value will be effective only in dedicated mode or VTAM mode. You can, however, be operating in any mode when you define a new value for the purpose of saving it in a user profile.
- The maximum interval is 99.00.
- VTAM mode does not allow an interval shorter than 5 seconds.
- Dedicated mode does not allow an interval shorter than .5 seconds.

**IODELAY** In automatic updating, the number of cycles to delay the next screen refresh after you have moved the cursor. The maximum number is 100.

**LOOPCOUNT** The maximum number of control blocks that the PEEK command can test before OMEGAMON detects a loop. The valid range is 1 to 1000000.

The PEEK command traces control block chains. If OMEGAMON encounters a damaged target address space, some of the control blocks examined may have chained into a loop, and OMEGAMON issues a warning message. The warning may also appear when you chain through an address space that has a complex TCB structure. In this case, the cause may not be a loop, but rather the large amount of processing that is necessary to scan all of the TCBs.
LOOPTIME The threshold (in seconds) for OMEGAMON built-in loop detection. The default is 10 seconds, the maximum value is 300.

OCMDMASTER The target routing of the OCMD immediate command. ON routes to the master O/S console. OFF routes to an alternate console.

PAGELIMIT The size (in pages) of the REPORT file used to log OMEGAMON screens. The maximum is 99999. This number dynamically decreases as the log is printing to reflect the number of pages left before the limit is reached. Consequently, be sure to check this parameter (and reset it, if necessary) before saving a profile.

PEEKSIZE The maximum value for PEEKSIZE is 33553408. The first time you use PEEK in an OMEGAMON session, it obtains a work area (32K by default) from the private area to hold the collected data. OMEGAMON gives you a warning message if the data does not fit within the work area.

Issue .SET and increase the value of PEEKSIZE to increase the work area size. Then reissue the PEEK command and it will collect the data. You can save the new PEEKSIZE definition in a user profile.

STATUSMODE The status mode (ON or OFF) for the Workload Profile Facility.

Related Information: None

.SGO

Type: OMEGAMON Immediate command

Description: Fetches the specified screen space on the next cycle. Use the .SGO (Screen GO) command when creating screen spaces to build a series of screen spaces that will execute in sequence. .SGO causes screen spaces to branch to other screen spaces. It is particularly useful for implementing the Automatic Screen Facility (ASF) or the Timed Screen Facility (TSF) features of exception analysis.

.SGO has a conditional screen fetch feature that fetches a screen space only if a condition is true.

n.SGO cccccccc

[CPSER {=|EQ|GE|GT|LE|LT|NE} argument]
[DIR {=|EQ|GE|GT|LE|LT|NE} argument]
[MODE {=|EQ|GE|GT|LE|LT|NE} argument]
[OPSYS {=|EQ|GE|GT|LE|LT|NE} argument]
[PREFIX {=|EQ|GE|GT|LE|LT|NE} argument]
[SMFID {=|EQ|GE|GT|LE|LT|NE} argument]
[UNIT {=|EQ|GE|GT|LE|LT|NE} argument]
[USER {=|EQ|GE|GT|LE|LT|NE} argument]
 [&var {=|EQ|GE|GT|LE|LT|NE} argument]
Keywords for Conditional Setting of Variables

The following keywords are available for conditional setting of variables. Their values are initialized by OMEGAMON.

**CPSER**
- CPU serial number. In the case of a multi-processing environment, this keyword will compare the supplied CPU serial number with the serial numbers of all CPUs in the complex. If the relational argument is equal (= or EQ), OMEGAMON will fetch the screen space the first time it finds a match. If the relational argument is NE, OMEGAMON will fetch the screen space only after it has checked all of the CPUs in the complex.

**DIR**
- The ID assigned to the director in cross system mode.

**MODE**
- The 3-character code for the OMEGAMON mode of operation. It is displayed on the INFO-line during a session. Possible values are:
  - **DED**: A dedicated mode session
  - **DIR**: A director segment running dedicated in a cross memory or cross system mode session
  - **DSK**: A collector segment running in a cross system mode session
  - **TSO**: A TSO mode session
  - **SPF**: An ISPF mode session
  - **VTD**: A director segment running under VTAM in a cross memory or cross system mode session
  - **VTM**: A VTAM mode session
  - **XMM**: A collector segment running in a cross memory mode session

**OPSYS**
- The MVS operating system level (for example, 130, 210, 310, 410, or 510).

**PREFIX**
- The OMEGAMON product code (for example, OM).

**SMFID**
- The system ID from the SYS= startup parameter or the default SMF ID.

**UNIT**
- The device number from the UNIT= startup parameter (the primary OMEGAMON console).

**USER**
- The user profile suffix from the USER= startup parameter.

**&var**
- Allows you to set any comparison you wish. The keyword and argument can be any variable name set with the .VAR command or any OMEGAMON-defined variable. The .VAR command lists OMEGAMON-defined variables.
Relational Operators

The relational operators require blanks on either side except for the equal sign (=).

- **= or EQ**  
  Keyword equals argument.

- **GE**  
  Keyword is greater than or equal to argument.

- **GT**  
  Keyword is greater than argument.

- **LE**  
  Keyword is less than or equal to argument.

- **LT**  
  Keyword is less than argument.

- **NE**  
  Keyword is not equal to argument.

**argument**  
The argument is a 1- to 8-character value to which OMEGAMON compares the keyword. The keyword and argument can be any variable name set with the .VAR command or any OMEGAMON-defined variable. The .VAR command lists OMEGAMON-defined variables.

For example,

```
.SGO DISK
```
fetches screen space DISK on the next cycle.

```
B.SGO DISK
```
delays the fetch of screen space DISK 11 cycles, and fetches it on the next cycle after \( n=0 \).

To fetch screen space SAMPLE only if you are running in an XA environment, enter

```
.SGO SAMPLE OPSYS=210
```
or

```
.SGO SAMPLE OPSYS EQ 210
```
If multiple .SGO commands appear on one screen, the last .SGO command without a condition, or for which the condition is true, executes.

You may also use the .FGO command to fetch screen spaces. It functions the same as .SGO except that .FGO bypasses the screen display and the OMEGAMON cycle wait.

**Related Information:** See .FGO.

SGRAxxx

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about graphics devices belonging to string xxx.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, ESDK ccccc, IOSnnn, LCHRxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx,
SLST

**Type:**  OMEGAMON Immediate command (Authorized)

**Description:**  Displays bytes of memory from data-only space storage.

```
aSLSTc jobname,spacename,addr,plen
```

- **a**  A required action character in column 1:
  - Changes to a comment character (>) after command executes.
  - <  Does not change to a comment character after command executes. Use this action character to repeat the command.

- **c**  Specifies the format of the output:
  - B  dump format (default)
  - C  character only
  - X  hex only

- **jobname**  The jobname or ASID in decimal of the owner of the data-only space.
- **spacename**  The name of the data-only space.
- **addr**  The starting address of the data. You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name. An anchor is the base address of an address specification. It can be:
  - **absolute**  The hexadecimal address.
  - **symbolic**  Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

- **offset**  A plus sign (+) or minus sign (-), followed by a hexadecimal number. This modifier specifies a location at a known offset (positive or negative) from the anchor address.
- **indirect**  Use a question mark (?) as the symbol for 31-bit addressing. Use a percent sign (%) as the symbol for 24-bit addressing. This modifier indicates that the location pointed to is itself an address.
SLST will list memory from data-only spaces. When necessary, an SRB will be scheduled into the address space of the TCB owning the data-only space to be listed.

Here is an example of the SLST display.

```
<SLST MYJOB,MYSPACE,1000,20
+Storage at 00001000 in dataspace MYSPACE, job MYJOB ASID=12
+ 0000 E3C5E2E3 40C4C1E3 C140E2D7 C1C3C540 *TEST DATA SPACE *
+ 0010 F0F1F2F3 F4F5F6F7 F8F9C1C2 C3C4C5C6 *0123456789ABCDEF*
```

Because of the potential security risk associated with using SLST, the .DSA command exists to provide an extra level of protection.

**Related Information:** Other Dataspace and Hiperspace Storage commands: .DSA, OSPC, SCHN, SSCN, and SZAP

---

**.SMF**

**Type:** OMEGAMON Immediate command

**Description:** Displays information about SMF datasets and exits. If SMF records are lost, the number of lost records appears at the end of the top line. The following figure shows a typical SMF display.

```
.SMF SMF System ID is SYSA; Job Wait Time Limit 30:00 MN
+ 1245 SMF buffers containing 44539 records have been written
+ SMF Dname  volser  Status    Blocks   %full
+ SYS1.MANX SYSRS1 * active *  4000      90
+ SYS1.MANY SYSRS2  dump reqd  4000     100
+ SYS1.MANZ SYSRS3 alternate   4000       0
+ SMF exit information:
+ Subsystem name: SYS * default *
+ IEFU29  active  IEFUTL active
+ IEFUJ1 active
```
The following example shows the display’s fields represented by variables, which are described below.

```
.SMF SMF System ID is cccc: Job Wait Time Limit tt:tt u
+ nnnn SMF buffers containing nnnnn records have been written
SMF Dsname volser Status Blocks %full
ddddddeed vvvvvvv sssssss ss ss
SMF exit information:
Subsystem name: aaaaaa bbbbbbb
eeeee ffffffff eeeeee ffffffff eeeeee ffffffff
```

The following fields appear on the .SMF display:

- **cccc**: System Management Facilities (SMF) ID of the system.
- **tt:tt**: Job Wait time (JWT parameter of SMFPRM.xx).
- **u**: Units of time. These can be:
  - **SEC**: Seconds
  - **MN**: Minutes
  - **HR**: Hours
- **ddddddeed**: Dataset Name.
- **vvvvvv**: Volser.
- **ssssss**: Status of the SMF dataset. This can be:
  - **Dump reqd**: Dump is required
  - *** active ***: Active dataset
  - **alternate**: Alternate dataset
- **nn**: Decimal value.
- **aaaaaaa**: SMF subsystem name.
- **bbbbbbb**: Status of this subsystem. This can be:
  - *** default ***: Default SMF subsystem.
  - **is inactive**: Subsystem is not currently active.
  - **has no exit table**: Subsystem does not have an exit table.
  - **exit table has no entries**: Subsystem has an exit table, but it is empty.
Exit table has no entries.

Related Information: None

SMIG

Type: OMEGAMON Minor command

Description: Displays number of pages eligible for expanded storage, but not requiring migration.

cSMIG.R|.S|.M|.H

where c represents the plot symbol, .R displays total pages moved as a rate per second, .S is an alternate to .R to display rate per second, .M displays total pages moved as a rate per minute, and .H displays total pages moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

The pages included in this count were previously brought into central storage from auxiliary storage. They were moved out to expanded storage without having been changed. Though their “age” in expanded storage makes them eligible at this time for migration back to auxiliary storage, SRM does not perform the actual migration since the copy in auxiliary storage is the same as the copy eligible for migration.

Related Information: Minor of: SYS

Other block paging commands: SBIA, SBIE, SBTA, SBTE, SPIA, SPIE, SSPI, SSPO, SSTA, and SSTE

SMPP

Type: OMEGAMON Minor command

Description: Displays average time to transfer a swap page in milliseconds.

Related Information: Minor of: SYS

SOUT

Type: OMEGAMON Minor command

Description: Removes control from a sequential dataset and directs it to the specified SYSOUT class. The SOUT minor removes control from the ddname currently used for your XLFLOG or REPORT log and directs it to SYSOUT.

SOUT c

The variable c is the SYSOUT class.

Related Information: Minor of: OUTP
Other print output options minors: COPY, DDNM, DEST, DSTU, FOLD, FORM, HOLD, ID1, ID2, ID3, ID4, and LNCT

SPAL

**Type:** OMEGAMON Minor command  
**Description:** Displays the rate of total paging per second.  
**cSPAL.R**

where \( c \) is a plot symbol, and .R indicates that the value will be expressed as pages/second.  
See SPR for a sample display showing the use of the plot symbol.  
**Related Information:** Minor of: SYS  
Other paging minors: SPC, SPCI, SPR, SPS, SPSV, and SPWS  
Related EPILOG Keyword: RPAG

SPC

**Type:** OMEGAMON Minor command  
**Description:** Displays the rate of common area paging.  
**cSPC.R**

where \( c \) is a plot symbol, and .R indicates that the value will be expressed as pages/second.  
See SPR for a sample display showing the use of the plot symbol.  
**Related Information:** Minor of: SYS  
Other paging minors: SPAL, SPCI, SPR, SPS, SPSV, and SPWS  
Related EPILOG Keyword: RPAG

SPCI

**Type:** OMEGAMON Minor command  
**Description:** Displays the rate of common area page-ins.  
**cSPCI.R**

where \( c \) is a plot symbol, and .R indicates that the value will be expressed as pages/second.  
See SPR for a sample display showing the use of the plot symbol.  
**Related Information:** Minor of: SYS  
Other paging minors: SPAL, SPC, SPR, SPS, SPSV, and SPWS  
Related EPILOG Keyword: RPAG
SPIA

**Type:** OMEGAMON Minor command

**Description:** Displays number of blocked pages moved in from auxiliary storage.

\[ \text{cSPIA.R | .S | .M | .H} \]

where \( c \) represents the plot symbol, .R displays total pages moved as a rate per second, .S is an alternate to .R to display rate per second, .M displays total blocks moved as a rate per minute, and .H displays total blocks moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIA, SBIE, SBTA, SBTE, SMIG, SPIE, SSPI, SSPO, SSTA, and SSTE

SPIE

**Type:** OMEGAMON Minor command

**Description:** Displays number of blocked pages moved in from expanded storage.

\[ \text{cSPIE.R | .S | .M | .H} \]

where \( c \) represents the plot symbol, .R displays total blocks moved as a rate per second, .S is an alternate to .R to display rate per second, .M displays total blocks moved as a rate per minute, and .H displays total blocks moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIA, SBIE, SBTA, SBTE, SMIG, SPIE, SSPI, SSPO, SSTA, and SSTE

SPL

**Type:** OMEGAMON Minor command

**Description:** Dumps Service Priority List. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PDGT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, WAMPnn, WAMT, and WMST

SPR

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of total page reclaims.

\[ \text{cSPR.R} \]
where \( c \) is a plot symbol, and .R indicates that the value will be expressed as pages/second.

```
SYS >> IPS=83,OPT=83,ICS=83, SYSRES=(MVS134,145) <<
$SPR .R 90.0 2.0/pt $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$SPS .R 44.0 2.0/pt $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$SPWS.R 2.0 2.0/pt $
```

In the example above, 2.0/pt indicates that each point on the scale represents two pages/second. The dollar sign ($) is the plot symbol. The GSCL command sets the scale of the plot.

**Related Information:** Minor of: SYS

Other paging minors: SPAL, SPC, SPCI, SPS, SPSV, and SPWS

Related EPILOG Keyword: RPAG

**SPS**

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of system area paging.

\[ \text{cSPS.R} \]

where \( c \) is a plot symbol, and .R indicates that the value will be expressed as pages/second.

```
SYS >> IPS=83,OPT=83,ICS=83, SYSRES=(MVS134,145) <<
$SPR .R 90.0 2.0/pt $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$SPS .R 44.0 2.0/pt $$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$SPWS.R 2.0 2.0/pt $
```

In the example above, 2.0/pt indicates that each point on the scale represents two pages/second. The dollar sign ($) is the plot symbol. The GSCL command sets the scale of the plot.

**Related Information:** Minor of: SYS

Other paging minors: SPAL, SPC, SPCI, SPR, SPSV, and SPWS

Related EPILOG Keyword: RPAG

**SPSV**

**Type:** OMEGAMON Minor command

**Description:** Displays the rate of system VIO paging.

\[ \text{cSPSV.R} \]

where \( c \) is a plot symbol, and .R indicates that the value will be expressed as pages/second.

See SPR for a sample display showing the use of the plot symbol.

**Related Information:** Minor of: SYS
Other paging minors: SPAL, SPC, SPCI, SPR, SPS, and SPWS
Related EPILOG Keyword: RPAG

.SPT

Type: OMEGAMON Immediate command

Description: Assigns a number to a pattern value to accommodate generic selection of certain major command output. The .SPT command can set up to 10 patterns for use with the DEVP device major command and the address space major commands.

.SPT/n cccccc

n  Specifies the pattern number. It can be a number from 1 to 9. To set or display the default pattern 0, omit the /n. The argument /n can also be:

/D Displays all the patterns.
/C Clears all the patterns at once. OMEGAMON comments out .SPT/C so that it does not re-execute.
.. (Two periods). Clears the contents of the default pattern.

ccccccc  Specifies the pattern value. You can use an asterisk (*) as a wildcard.

The following example sets pattern 2 to all names beginning with OP.

.SPT/2 OP*

The entry

DEVP/2

invokes pattern 2 for the major command DEVP.

Related Information: None

SPWS

Type: OMEGAMON Minor command

Description: Displays the rate of swap paging.

cSPWS.R

where c is a plot symbol, and .R indicates that the value will be expressed as pages/second.

<table>
<thead>
<tr>
<th>Command</th>
<th>Value</th>
<th>Format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPR .R</td>
<td>90.0</td>
<td>2.0/pt</td>
<td>$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$</td>
</tr>
<tr>
<td>SPS .R</td>
<td>44.0</td>
<td>2.0/pt</td>
<td>$$$$$$$$$$$$$$$$$$$$$$$</td>
</tr>
<tr>
<td>SPWS .R</td>
<td>2.0</td>
<td>2.0/pt</td>
<td>$</td>
</tr>
</tbody>
</table>

SYS >> IPS=83,OPT=83,ICS=83, SYSRES=(MVS134,145) <<
In the example above, 2.0/pt indicates that each point on the scale represents two pages/second. The dollar sign ($) is the plot symbol. The GSCL command sets the scale of the plot.

**Related Information:**  Minor of: SYS
Other paging minors: SPAL, SPC, SPCI, SPR, SPS, and SPSV
Related EPILOG Keyword: RPAG

### SQA

**Type:** OMEGAMON Minor command

**Description:** Displays a job’s usage of SQA. (There are other entries with the same name. See the next entry for a description of SQA as a minor of SYS.)

**Related Information:**  Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, TWSF, TWSS, VSC, WKST, and WSSI

### SQA

**Type:** OMEGAMON Minor command

**Description:** Displays SQA by subpool and protect key. (There are other entries with the same name. See the previous entry for a description of SQA as a minor of address space majors.) SQA displays the number of bytes used as well as allocated for those subpools that are not in fetch-protected memory. Protected subpools display *AUTH* in the Used column. This is because the control block OMEGAMON needs to get the information, the FQE, is in the subpool.

The SQA utilization display shows the extents, allocated blocks, storage used, and the largest free block.

<table>
<thead>
<tr>
<th>Subpl-Key</th>
<th>Ext</th>
<th>Alloc. Blks</th>
<th>Storage Used</th>
<th>Largest Free Blk</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>245-0</td>
<td>1</td>
<td>384K</td>
<td>221K+16</td>
</tr>
<tr>
<td>+ Total:</td>
<td></td>
<td></td>
<td>384K</td>
<td>221K+16</td>
</tr>
<tr>
<td>+ Percent of SQA:</td>
<td>100.0%</td>
<td>57.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ SQA Size</td>
<td></td>
<td></td>
<td>3012K</td>
<td></td>
</tr>
</tbody>
</table>

**Subpl-Key**

Storage by subpool and key. These are the usual protect key assignments:

- **0**  Control Program
- **1**  Job Scheduler and JES
- **2,3,4**  Reserved
- **5**  Data Management: IOS, OPEN/CLOSE/EOV
When an SQA overflow condition occurs, the following line is appended to the output from the command:

(SQA SIZE DOES NOT INCLUDE nnnk OF CSA CONVERTED TO SQA)

**Related Information:** Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESI, ESPM, ESPO, ESPI, ESPR, ESQA, RMAP, and VMAP

### SQDC

**Type:** OMEGAMON Minor command

**Description:** Displays SQA deficit count.

**Related Information:** Minor of: SYS

### SQRV

**Type:** OMEGAMON Minor command

**Description:** Displays number of times SQA reserve pool used.

**Related Information:** Minor of: SYS

### SRB2

**Type:** OMEGAMON Minor command

**Description:** Displays SRB time in seconds with a decimal fractional part.
**SRB c**

**Type:** OMEGAMON Minor command  
**Description:** Displays contents of c, where c can be any of the following:

- **L** Local Service Manager Queue (LSMQ)  
- **G** Global SMQ (GSMQ)  
- **P** global Service Priority List (SPL)

**Related Information:** Minor of: SYS

---

**SRBT**

**Type:** OMEGAMON Minor command  
**Description:** Displays SRB time in whole seconds. This is for the current job step (batch) or user session (TSO).  

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DPRT, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, and TCP2

---

**SRCT**

**Type:** OMEGAMON Immediate command  
**Description:** Displays swap reason counts by type (XA). SRCT displays the number of physical and logical swaps by storage area (auxiliary and expanded) for each swap reason. The data can appear as:

- a number (SRCT)  
- a difference (SRCT.D)  
- a percentage (SRCT.P)  
- a rate (SRCT.R)  

If you execute SRCT on a system without expanded storage, n/a (for not applicable) appears.
The following is an example of SRCT output:

<table>
<thead>
<tr>
<th>SRCT</th>
<th>Total</th>
<th>TOTAUX</th>
<th>PSTOAUX</th>
<th>LSTOAUX</th>
<th>TOTES</th>
<th>PSTOES</th>
<th>LSTOES</th>
<th>ESTOAUX</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ TO</td>
<td>4569</td>
<td>100</td>
<td>100</td>
<td>0</td>
<td>4469</td>
<td>100</td>
<td>4369</td>
<td>50</td>
</tr>
<tr>
<td>+ TI</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ LW</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ XS</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
<tr>
<td>+ RS</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ DW</td>
<td>807</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ RQ</td>
<td>23</td>
<td>23</td>
<td>0</td>
<td>23</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>+ RQ</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
</tr>
<tr>
<td>+ EX</td>
<td>3046</td>
<td>1023</td>
<td>1023</td>
<td>0</td>
<td>2023</td>
<td>1003</td>
<td>1020</td>
<td>500</td>
</tr>
<tr>
<td>+ US</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ TR</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ CS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ SP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ OL</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+ AP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+Total</td>
<td>8611</td>
<td>1296</td>
<td>1273</td>
<td>23</td>
<td>7315</td>
<td>1164</td>
<td>6151</td>
<td>560</td>
</tr>
</tbody>
</table>

The following fields appear on the SRCT display:

- **TOTAUX**: Total number of swap requests for this swap reason that were sent to auxiliary storage. It is the sum of PSTOAUX and LSTOAUX.
- **PSTOAUX**: Number of physical swap requests for this swap reason that were sent directly to auxiliary storage.
- **LSTOAUX**: Number of logical swap requests for this swap reason that were eventually physically swapped to auxiliary storage, without first going to expanded storage.
- **TOTES**: Total number of swap requests for this swap reason that were sent to expanded storage. It is the sum of PSTOES and LSTOES.
- **PSTOES**: Number of physical swap requests for this swap reason that were sent to expanded storage.
- **LSTOES**: Number of logical swap requests for this swap reason that were sent to expanded storage.
- **ESTOAUX**: Number of physical and logical swap requests for this swap reason that were eventually migrated from expanded storage to auxiliary storage.
- **Total**: Total number of swap requests for this swap reason (it is the sum of TOTAUX and TOTES). When you enter an argument of .P, a series of percentages appears across the screen for each swap type. The values for TOTAUX and TOTES add up to 100%. This is not the same number as that which appears in the Total column beside each swap type. The number in the Total column is this swap type’s percentage of the total number of swaps found at the bottom of the Total column. Suppose, for example, that for swap reason TO (terminal output) the Total column shows a value of 10, TOTAUX shows 83, and TOTES shows 17. This means that 10% of the total number of all swaps are for terminal output wait. Of this number, 83% were swapped to auxiliary storage, and 17% were swapped to expanded storage.
The types of swaps are:

- **TO**: Terminal output wait swap
- **TI**: Terminal input wait swap
- **LW**: Long wait swap
- **XS**: Auxiliary storage shortage swap
- **RS**: Real storage shortage swap
- **DW**: Detected wait swap
- **RQ**: Requested swap
- **NQ**: Enqueue exchange swap
- **EX**: Exchange swap
- **US**: Unilateral swap
- **TR**: Transition swap
- **CS**: Central storage swap (MVS/SP 4.2)
- **SP**: System paging swap (MVS/SP 4.2)
- **OL**: Out too long swap (MVS/SP 4.2)
- **AP**: APPC wait swap (MVS/SP 4.2)

If a swap reason output is all zeros, it does not appear on the display unless you use the .R argument. In that case, zeros represent rates too small to display. The above example shows the output for all 15 swap reasons, even when the value is 0 for each entry on the line (for example, the US or TR line).

If you use extended color, the sum of the three columns labeled TOTAUX, TOTES, and ESTOAUXX appears in reverse video. This indicates that OMEGAMON did not use the sum of these three columns to calculate the totals for the individual swap reasons.

**Related Information**: None

**SRPG**

**Type**: OMEGAMON Minor command

**Description**: Displays subsystem report performance group number. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

**Related Information**: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

**SSCN**

**Type**: OMEGAMON Immediate command (Authorized)

**Description**: Scans data-only space storage for the occurrence of a specific string of data.
**aSSCNc jobname,spacename,addr,string,len1,len2**

- **a** A required action character in column 1:
  - `-` Changes to a comment character (>) after command executes.
  - `<` Does not change to a comment character after command executes. Use this action character to repeat the command.

- **c** Specifies the format of the output:
  - **B** or **dump format** (default)
  - **C** character only
  - **X** hex only

- **jobname** The jobname or ASID in decimal of the owner of the data-only space.
- **spacename** The name of the data-only space.
- **addr** The starting address of the data. You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name. An anchor is the base address of an address specification. It can be:
  - **absolute** The hexadecimal address.
  - **symbolic** Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

- **offset** A plus sign (+) or minus sign (-), followed by a hexadecimal number. This modifier specifies a location at a known offset (positive or negative) from the anchor address.
- **indirect** Use a question mark (?) as the symbol for 31-bit addressing. Use a percent sign (%) as the symbol for 24-bit addressing. This modifier indicates that the location pointed to is itself an address.

- **string** The comparison string for the scan. Either a hexadecimal string or a character string. Use single quotes around a character string. Do not use quotes around a hexadecimal string.

- **len1** The length to scan in hex. Default is 256 (X’100’ bytes).
- **len2** The length of print display. Default is one line or 16 (X’10;’ bytes).

SSCN will scan data-only space storage until a match to the string is found or the length of storage specified is exhausted. When necessary, an SRB will be scheduled into the address...
space of the TCB owning the data-only space to be scanned. Following is a sample SSCN display.

Because of the potential security risk associated with using SSCN, the .DSA command exists to provide an extra level of protection.

**Related Information:** Other Dataspace and Hiperspace Storage commands: .DSA, OSPC, SCHN, SLST, and SZAP

**SSPI**

**Type:** OMEGAMON Minor command

**Description:** Displays number of pages paged-in on demand from expanded storage as part of a block paging operation.

\[c\text{SSPI.R|S|M|H}\]

where \(c\) represents the plot symbol, .R displays total pages moved as a rate per second, .S is an alternate to .R to display rate per second, .M displays total pages moved as a rate per minute, and .H displays total pages moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIA, SBIE, SBTA, SBTE, SMIG, SBIA, SPIE, SSPO, SSTA, and SSTE

**SSPO**

**Type:** OMEGAMON Minor command

**Description:** Displays number of pages stolen and moved to expanded storage as part of a block paging operation.

\[c\text{SSPO.R|S|M|H}\]

where \(c\) represents the plot symbol, .R displays total pages moved as a rate per second, .S is an alternate to .R to display rate per second, .M displays total pages moved as a rate per minute, and .H displays total pages moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS

Other block paging commands: SBIA, SBIE, SBTA, SBTE, SMIG, SBIA, SPIE, SSPI, SSTA, and SSTE
SSRT

**Type:** OMEGAMON Minor command

**Description:** Displays swap dataset response time. RMF must be active for SSRT to work.

**Related Information:** Minor of: SART
Other swapping minors: SADR, SAER, SAS%, SAST, SASZ, SAVL, SAVS, and SDVT

SSTA

**Type:** OMEGAMON Minor command

**Description:** Displays number of blocked pages stolen and moved to auxiliary storage as part of a block paging operation.

\[ cSSTA.R \mid .S \mid .M \mid .H \]

where \( c \) represents the plot symbol, \( .R \) displays total pages moved as a rate per second, \( .S \) is an alternate to \( .R \) to display rate per second, \( .M \) displays total pages moved as a rate per minute, and \( .H \) displays total pages moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS
Other block paging commands: SBIA, SBIE, SBTA, SBTE, SMIG, SPIA, SPIE, SSPI, SSPO, and SSTE

SSTE

**Type:** OMEGAMON Minor command

**Description:** Displays number of blocked pages stolen and moved to expanded storage as part of a block paging operation.

\[ cSSTE.R \mid .S \mid .M \mid .H \]

where \( c \) represents the plot symbol, \( .R \) displays total pages moved as a rate per second, \( .S \) is an alternate to \( .R \) to display rate per second, \( .M \) displays total pages moved as a rate per minute, and \( .H \) displays total pages moved as a rate per hour. This command applies to MVS/SP 4.2 and above.

**Related Information:** Minor of: SYS
Other block paging commands: SBIA, SBIE, SBTA, SBTE, SMIG, SPIA, SPIE, SSPI, SSPO, and SSTE

STAPxxx

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about magnetic tape devices belonging to string xxx.

**Related Information:** Minor of: STAT
Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn,
STAT

**Type:** OMEGAMON Major command

**Description:** Displays statistical data collected from RMF. STAT displays the following RMF statistics:
- interval start time
- interval elapsed time
- length of interval

Minor commands that you enter beneath the STAT major command display device service time statistics in numbered format.

An argument of P with STAT (STATP) plots device service time statistics in graph format, where each point represents 10%.

An argument of Z with either STAT or STATP sets all the thresholds of the minor commands that do not appear on the screen to zero. Thus, you do not need to re-enter every STAT minor command in order to set their thresholds to 0; just enter STATZ or STATPZ. Then, you can enter only those minor commands for which you want to change the threshold.

**Example:**

```
STAT  Interval Start Time: 11:45:01   Elapsed:   43 SEC   Length: 15:00 MN
```

**Related Information:** Major of: See Device Utilization Commands, Long-Term in “Command Groupings” on page 17.

STCJ

**Type:** OMEGAMON Major command

**Description:** Selects started task. These address spaces include system tasks, such as the MASTER scheduler, JES2, TCAM/VTAM, and any other address spaces for which a START command has been issued.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

STCL

**Type:** OMEGAMON Major command

**Description:** Selects started tasks in logically swapped status.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.
STEP2

**Type:** OMEGAMON Minor command

**Description:** Displays stepname. (There are other entries with the same name. See the next entry for a description of STEP as a minor of PEEK.) STEP displays **INIT** when a batch job is moving between steps. This tells you when the CPU time figures pertain to the initiator rather than to your job.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Identification minors: ASID, DMNA, DMPxx, DOM#, PERD, PERF, PGNA, and PROC

STEP3

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays private area storage utilization. (There are other entries with the same name. See the previous entry for a description of STEP as a minor of address space majors.) The following screen shows an example of the STEP command.

```
PEEK USER01   ASID=46, collected at 15:39:39
  step Job Step Pgm: cccccc; 5 TCBs, 3 datasets, and 3 Modules
  +   Step started at 18:29:04, now in step #1 of 1
  +
  + For the region below the 16M line:
  +
  +   Total private region = 8172K Unused = 3104K
  +   Region requested = 5120K Region limit = 5184K
  +   Low PVT in use = 4876K Unallocated = 204K Free = 40K
  +   High PVT in use = 192K Unallocated = 24K Free = 42K
  +   Start of SYSREG: 00001000  End of SYSREG: 00004FFF
  +   Start of low PVT: 00005000  End of low PVT: 004FAFFF
  +   Current top: 004FAFFF Limit of region: 00514FFF
  +   Start of high PVT: 007D0000  End of high PVT: 007FFFFF
  +
  + For the extended region above the 16M line:
  +
  +   Total private region = 2055168K Unused = 2046116K
  +   Region limit = 32768K
  +   Low PVT in use = 96K Unallocated = 4K Free = 7K
  +   High PVT in use = 8956K Unallocated = 8948K Free = 6K
  +   Start of low PVT: 02900000  End of low PVT: 0291AFFF
  +   Current top: 0291AFFF Limit of region: 048FFFFF
  +   Start of high PVT: 7F741000  End of high PVT: 7FFFFFFF
===========================================================================
```
The following fields appear on the STEP display.

- **ccc** The current program name of the topmost JOBSTEP TCB. (This value corresponds to what is in the EXEC statement, unless XCTL was used to transfer control to another load module.) The other counts indicate how many lines of output you may expect from the TCBS, DDNS, and MODS minor commands.

The following fields appear on the STEP display.

- **Total private region** The total size of the private area, including areas that can’t be allocated.
- **Region requested** The amount you specify on the REGION JCL parameter.
- **Region limit** The region limit that the IEALIMIT exit imposes.
- **Low PVT** The storage that the REGION parameter limits. This includes all of the user subpools.
- **High PVT** Includes LSQA, SWA, and subpools 229 and 230. This value is allocated from the top of the user’s region downward and is not limited by the REGION JCL parameter.

- **In use** The storage allocated to subpools.
- **Unallocated** The storage not allocated to subpools.
- **Free** The storage allocated to subpools but not currently GETMAINed.

- **SYSREG** An area of storage reserved for use by the region control task.
- **Current top** The highest allocated address in the low PVT area at the current time.

For the system address spaces (CONSOLE, GRS, ALLOCAS), there is no job information available. In this case OMEGAMON displays:

```
PEEK IEEVWAIT ASID=25, collected at 15:39:39
STEP Region Requested = *N/A* Region in use =*N/A* Region Limit =*N/A*
+ Job Step Pgm: IEEVWAIT; 5 TCBs, 6 Datasets, and 2 Modules
+ System Address Space has no steps
```

For the system address spaces, the STEP minor does not display step start time, nor any information available on step number.

**Related Information:** Minor of: PEEK

Other Authorized Minors that Collect Data about Address Spaces: AMAP, DATA, DDNS, JOBS, MODS, SUBP, and TCBS.
STIMnn

**Type:** OMEGAMON Minor command

**Description:** Sets the sampling interval for data collection. To change the DEXAN data collector sampling time, use the STIMnn command, where nn is the sampling time in tenths of a second. If you omit the nn argument, DEXAN displays the current value of STIM. For example:

```
DEX
STIM
```

results in:

```
DEX  >> DX0001 Collector has not been started. <<
>STIM   >> DX7100 The data collector sampling time = 2.2 seconds. <<
```

This is the default sampling time. To change this value, enter STIM with a numeric operand, as shown below. For example:

```
DEX
STIM04
```

results in:

```
DEX  >> DX0001 Collector has not been started. <<
>STIM04 >> DX7100 The data collector sampling time = .4 seconds. <<
```

**Note:** Changing STIM while DEXAN is active is permitted. However, statistical integrity of the data is compromised until the end of the clear interval. Therefore, be careful about interpreting results if you change the STIM value while the data collector is running.

In TSO mode on a non-SE/SP system, you should set the sampling time to 0.4 seconds or less to prevent the DEXAN TSO transaction from being swapped out after each STIMER. As an alternative, you can use OMEGAMON to make the TSO ID non-swappable.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAAnn, PLTnnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, SUSB, SYNC, THRS, XCTnnnn, and XPGnnn
nn

/STK

**Type:** OMEGAMON INFO-line command

**Description:** Saves and stacks the current screen output for later recall. OMEGAMON currently refreshes the screen every cycle. There are times, however, when you may want to save a screen’s output so you can return to it later. You may want to investigate a problem by
going to another screen or by issuing commands, and then returning to the original screen. You can do this with the /STK command.

/STK ccccc

where ccccc is one of the following arguments for recalling and deleting entries from the stack:

(blank) Without an argument, /STK saves all data on the current screen (including all LROWS), not just the display window visible on the terminal. The maximum number of screens you can stack is 999.

n Recalls stacked entry n.

U (up) Recalls the entry prior to the current one. In the .DSE display, the Up argument moves the pointer to the entry above the current pointer.

D (down) Recalls the entry immediately following the current entry. In the .DSE display, the Down argument moves the pointer to the entry below the current pointer.

EMPTY Clears the entire contents of the stack.

DEL n Deletes entry n.

R Recalls the current entry.

The recall functions n, U, D, and R do not delete screens from the stack.

The .DSE immediate command displays the status of stacked screens and the amount of storage being consumed to stack them. A current entry pointer indicates the most recently referenced screen in the stack.

OMEGAMON displays a message on the INFO-line when it recalls a screen from the stack to indicate that this is not a currently executed screen. If OMEGAMON recalls a stacked screen while in auto-update mode, it places the recalled screen in HOLD mode until you press Enter.

The screen stacking feature works with extended color if extended color was on when the screen space was saved and if extended color is on when OMEGAMON recalls the screen. (See the .SCC command in the Profile Menu to activate extended color.)

The following /STK command saves the current screen, M110, onto the stack.

/STK___________ M110 VTAM OM/DEX V750./C A083 7/30/01 9:14:21 S

When there are stacked screens, the INFO-line of any non-stacked screen displays an S on the far right of the screen. (When the bell is on and a B is displayed, the S overlays the B.)

The next /STK command recalls entry number 2 (screen space DISKS) from the stack onto the screen.

/STK 2__________ #03 VTAM OM/DEX V750./C A083 7/30/01 9:14:21 S
The next figure shows a typical result of /STK 2.

<table>
<thead>
<tr>
<th>DISK</th>
<th>SYSB24</th>
<th>WORKB2</th>
<th>MVS/A21</th>
<th>OMON11</th>
</tr>
</thead>
<tbody>
<tr>
<td>dadr</td>
<td>140</td>
<td>142</td>
<td>143</td>
<td>146</td>
</tr>
<tr>
<td>dalc</td>
<td></td>
<td></td>
<td>18</td>
<td>82</td>
</tr>
<tr>
<td>dio</td>
<td>311</td>
<td>138</td>
<td>39176</td>
<td>37902</td>
</tr>
<tr>
<td>data</td>
<td>PRIVATE</td>
<td>STORAGE</td>
<td>PRIVATE</td>
<td>STORAGE</td>
</tr>
<tr>
<td>dtyp</td>
<td>3380</td>
<td>3380</td>
<td>3380</td>
<td>3380</td>
</tr>
</tbody>
</table>

**Related Information:** None

/STOP

**Type:** OMEGAMON INFO-line command

**Description:** Stops OMEGAMON. STOP can be entered either on the INFO-line or in the main body of the screen to stop OMEGAMON.

**Related Information:** None

STOP

**Type:** OMEGAMON Immediate command

**Description:** Stops OMEGAMON. STOP can be entered either on the INFO-line or in the main body of the screen to stop OMEGAMON.

**Related Information:** None

SUAL

**Type:** OMEGAMON Minor command

**Description:** Displays total service units since the last swap-in. This value is calculated as:

\[
\text{SUCP} + \text{SUIO} + \text{SUMS (All service units)}
\]

The service units for non-swappable address spaces are calculated about every 20 seconds. Keep this in mind especially when you use the .R rate argument.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPSG, JPUI, JPVO, JRCM, JRCP, JRIO, JRST, JRLW, SUCP, SUIO, SUMS, SUPR, and SWPR

SUBP

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays information about current virtual storage allocations for each storage subpool.
The SUBP display consists of two parts for each TCB: one part shows detailed information on the allocation of storage and one part shows a summary of the virtual storage. The third section shows totals. Notice that the totals displayed include all subpools in the address space, whether or not the X label was entered in front of the SUBP command. Consequently, the totals could be larger than the sums of the private area statistics.

Note that the SUBP display shows only allocation statistics for private area subpools and not common area subpools such as Subpool 241. Here is an example of the display (for both XA and ESA).

```
PEEK  CPSTEP6A ASID=15, collected at 15:39:39
sub
+ SBP-K Alloc Real #Blks Addr Free #Blks Mxfree Program
+ 251-8 28K 28K 10 000DD000 6184 3 000968 IFOX Own
+  0-8 2012K 22k 6 000E4000 5608 3 000AF0 Shr
+ 230-5 4K 1K 1 007CA000 3966 5 000488 Own
+ 237-1 188K 41K 39 007CC000 3156 38 000440 Shr
----------------------------------------------------------------------------
+ PVT-Hi: 4K 1K 1 3K 5
+ PVT-Lo: 28K 7K 3 4K 3
+ Subtot: 32K 8K 4 7K 8
==============================================================================
+ Tot-Hi: 360K 78K 70 40K 68
+ Tot-Lo: 2044K 29K 8 13K 7
+ Totals: 2404K 107K 78 53K 75
==============================================================================
```

The first portion of the display for each TCB shows detailed information about the subpool:

- **SBP-K**: Subpool number and protect key (decimal).
- **Alloc**: Amount of virtual storage currently allocated to the subpool (in 4K increments). The storage is not necessarily contiguous.
- **Real**: Amount of real storage backing the virtual allocation.
- **#Blks**: Number blocks allocated to the subpool.
The next portion of the display for each TCB is a summary of the virtual storage allocated:

<table>
<thead>
<tr>
<th>Addr</th>
<th>Address of the block with the lowest address (hex). In this example, there are 10 blocks and the lowest starts at 000DD000 in subpool 251.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free</td>
<td>Number of free bytes (hex) within the subpool that no one has yet GETMAINed. Anything in a free area is available for a GETMAIN for the same subpool, but not for other subpools.</td>
</tr>
<tr>
<td>#Blks</td>
<td>Number of free non-contiguous blocks within the subpool, where each block can be any number of bytes (in 8-byte units).</td>
</tr>
<tr>
<td>Mxfree</td>
<td>Size (hex) of the largest free block within the subpool.</td>
</tr>
<tr>
<td>Pgmname</td>
<td>Program name of the TCB described associated with these subpools.</td>
</tr>
<tr>
<td>Own</td>
<td>Shr</td>
</tr>
</tbody>
</table>

The next portion of the display for each TCB is a summary of the virtual storage allocated:

- **PVT-Hi**: Summary of LSQA allocated for the address space.
- **PVT-Lo**: Summary of user storage allocated for the address space.
- **Subtot**: Summary of LSQA and user virtual storage allocated.

The final section, which appears after all TCBs are listed, is a summary for the Private Area:

- **Tot-Hi**: Summary of LSQA allocated.
- **Tot-Lo**: Summary of user virtual storage allocated.
- **Totals**: Summary of LSQA and user virtual storage allocations.

The sample display on the previous page shows that the program IFOX00 currently has 28K bytes of storage allocated to subpool 251, key 8. It is allocated in three blocks and the storage defined by the last block begins at DD000. Of all subpool 251 storage, EF0 bytes are free (not in use). The EF0 free bytes are made up of three blocks. The largest of these blocks is 968 (hex) bytes long.

**Related Information**: Minor of: PEEK

Other Authorized Minors that Collect Data about Address Spaces: AMAP, DATA, DDNS, JOBS, MODS, STEP, and TCBS

**SUCP**

- **Type**: OMEGAMON Minor command
- **Description**: Displays CPU service units since the last swap-in. The service units for non-swappable address spaces are calculated about every 20 seconds. Keep this in mind especially when you use the .R rate argument.
- **Related Information**: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPGS, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUIO, SUMS, SUPR, and SWPR

**SUIO**

**Type:** OMEGAMON Minor command

**Description:** Displays I/O service units since the last swap-in. The service units for non-swappable address spaces are calculated about every 20 seconds. Keep this in mind especially when you use the .R rate argument.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPGS, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUMS, SUPR, and SWPR

**SUMS**

**Type:** OMEGAMON Minor command

**Description:** Displays Main Storage Occupancy (MSO) service units since the last swap-in. The service units for non-swappable address spaces are calculated about every 20 seconds. Keep this in mind especially when you use the .R rate argument.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPGS, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUPR, and SWPR

**SUPR**

**Type:** OMEGAMON Minor command

**Description:** Displays service units at beginning of period. The service units for non-swappable address spaces are calculated about every 20 seconds. Keep this in mind especially when you use the .R rate argument.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRG, JPGS, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUPR, and SWPR

**SURxxx**

**Type:** OMEGAMON Minor command

**Description:** Displays statistics about unit record devices belonging to string xxx.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK ccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx,
S Commands and Keywords

SUSP

**Type:** OMEGAMON Minor command

**Description:** Suspends the data collector. If you want to freeze data collection so that DEXAN analyzes several workloads over the same period of time, you can suspend data collection temporarily without losing the collected data. To do this, use the SUSP command. For example:

```
DEXAN >> DX0000 V750. running. Cycles=605 STIM=2.2 Elap=22:48 MN <<
SUSP >> DX0002 Collector being suspended <<
```

DEXAN acknowledges your entry and suspends data collection. All display commands such as PLTnnnn remain available. When you are ready to resume collection, use the RESM command.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SYNC, THRS, XCTnnnn, and XPGnnnnn

SVC nnn,m

**Type:** OMEGAMON Minor command

**Description:** Displays address of SVC nnn,m, where m is a route code. Route codes are only required for router SVCs, and you must separate them with a comma from the SVC number. For example, to find the address for SVC 109 (a router SVC), you would enter SVC 109 followed by a route code, in this case, 7:

```
SVC 109,7
```

The result is:

```
SVC 109,7 (X'6D',X'07') is located at 00BD4000 Type: 3 or 4 APF-AUTH
```

If the SVC Table was updated since the IPL, the following additional lines appear:

**Updated since IPL on:** mm/dd/yy  **Count:** n  **Return addr:** xxxxxxxxx

**Old Data - Entry Point:** xxxxxxxxx  **Type:** 3 or 4  **No Locks Needed.**

**Related Information:** Minor of: SYS
**Commands and Keywords**

**SVCXxx,m**

*Type:* OMEGAMON Minor command  
*Description:* Displays address of SVC xx (hexadecimal); m is an optional route code. Route codes are only required for router SVCs, and you must separate them with a comma from the SVC number. For example, to find the address for SVC 6D (a router SVC), you would enter SVCX6D followed by a route code, in this case, 7:

```
SVCX6D,7
```

The result is:

```
SVC 109,7 (X'6D',X'07') is located at 00BD4000 Type: 3 or 4 APF-AUTH
```

**Related Information:** Minor of: SYS

**SVOL ccccc**

*Type:* OMEGAMON Immediate command  
*Description:* Displays available space on disk with volser=cccccc. To reduce overhead, this command places a comment symbol (>) in column 1 after it executes. To prevent the self-comment function, place a less-than symbol (<) in column 1. Sample SVOL output appears in the sample screen below.

```
SVOL SPOOL1 1157 STR/RSNDT Free=(00045,11368) Areas=0251 Max Contig=(00008,00002)
```

**STR/RSNDT**

Mount status of the device (storage/resident).

**Free=(nnnn, mmmm) (nnnnn, mmmmm)**

The amount of free space available on this device. nnnn is the total amount of free cylinders and mmmm is the amount of additional free tracks (pre-MVS/SP 5.1). When OMEGAMON II for MVS is running under MVS/SP 5.1 and above, nnnnn is the total amount of free cylinders and mmmmm is the amount of additional free tracks.

**Areas=nnnn**

The number of areas that subdivide (or fragment) the available free space.

**Max Contig=(nnnn, mmmm) (nnnnn, mmmmm)**

The largest amount of contiguous free space available on this device. nnnn is the number of cylinders in the largest free extent and mmmm is the number of additional tracks in the largest free extent (pre-MVS/SP 5.1 and above). When OMEGAMON II for MVS is running under MVS/SP 5.1 and above, nnnnn is the number of cylinders in the largest free extent and mmmmm is the number of additional tracks in the largest free extent.

**Related Information:** None
SWCT

**Type:** OMEGAMON Minor command

**Description:** Displays short wait count. Often short waits result when an address space performs an I/O and is required to wait on it (nonbuffered files, for example). You usually use SWCT with .R to produce the rate of short waits per second.

**Related Information:** Minor of: See *Address Space Information Commands* in “Command Groupings” on page 17.

SWPC

**Type:** OMEGAMON Minor command

**Description:** Displays transaction swap count. This is the swap count for a batch job, STC, or TSO transaction. The count contains both physical and logical swaps.

**Related Information:** Minor of: See *Address Space Information Commands* in “Command Groupings” on page 17.

SWPI

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Causes the SRM to swap in an address space specified by the major command. To cause the SRM to swap in an address space, OMEGAMON invokes a standard SRM interface that forces a swap-in.

**Note:** To force the swap-in to occur, the SRM causes the target user to disregard the MPL constraints for the rest of the job step. A job in a domain with the maximum MPL set to zero (that is, a swapout domain) can swap in and accumulate service after you issue SWPI.

For example, to swap in job PAYROLL, enter:

```
JOBN PAYROLL
-SWPI
```

The hyphen is required.

The SRM swaps users in and out of memory on the basis of dynamically calculated recommendation values. Because SWPI does not affect these, the SRM will most likely swap the indicated user out again almost immediately. This limits the usefulness of the SWPI command.

**Related Information:** Minor of: Address space majors. See *Address Space Information Commands* in “Command Groupings” on page 17.

Address Space Minor--Authorized Commands: MCTL, MNSW, MSWP, SWPO, TADR, and TSNM
SWPO

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Causes the SRM to swap out an address space specified on the major command. SWPO uses a standard SRM interface to swap out the address space. For example, to swap out job PAYROLL, enter:

```
JOBN PAYROLL
-SWPO
```

The hyphen is required.

The SRM swaps users in and out of memory on the basis of dynamically calculated recommendation values. Because SWPO does not affect these, the SRM will most likely swap the indicated user in again almost immediately. This limits the usefulness of SWPO.

**Related Information:** Minor of: Address space majors. See *Address Space Information Commands* in “Command Groupings” on page 17.

Address Space Minor--Authorized Commands: MCTL, MNSW, MSWP, SWPI, TADR, and TSNM

SWPR

**Type:** OMEGAMON Minor command

**Description:** Displays swap reason. Swap reasons can be any of the following:

- **Exchange**  Exchange swaps (control domain MPL)
- **Unilatr**  Unilateral swaps (control system MPL)
- **Long-Wat**  Long wait (address space asked to wait more than 0.5 second)
- **Det-Wait**  Detected wait (address space was found waiting)
- **Term-In**  Terminal input wait (TSO waiting on user input)
- **Term-Out**  Terminal output wait (TSO waiting for TCAM/VTAM output buffers)
- **Aux-Strg**  Swapped to correct a shortage of auxiliary storage
- **Real-Str**  Swapped to correct a shortage of real storage
- **Request**  Swapped by SRM for system activity (that is, reconfigure storage to accommodate real storage address spaces)
- **Enq-Xchg**  Swapped to expedite the processing of an enqueue by its owner
- **Transwap**  Swapped while in transition from swappable to nonswappable status
- **Cent-Str**  Swapped out to improve central storage availability (MVS/SP 4.2)
- **Sys-Page**  Swapped out to reduce the system page fault rate (MVS/SP 4.2)
- **Too-Long**  Swapped out to enable the swap-in of an address space that had been swapped out too long (MVS/SP 4.2)
- **APPC Wt**  Voluntary swap-out of an idle APPC address space (MVS/SP 4.2)
If the last letter of the wait reason is an asterisk (*), the address space is ready to do work, but the SRM did not yet swap it back in. For example, if the system is busy and users press Enter, they are ready to do work. But since the system is so busy, the SRM did not have time to swap them back in. Their swap reason code is Term-In*.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space SRM Activity minors: HUIC, JPCI, JPRGR, JPGS, JPUI, JPUO, JRCM, JRCP, JRIO, JRST, JRWL, SUAL, SUCP, SUIO, SUMS, and SUPR

**SYNC**

**Type:** OMEGAMON Minor command

**Description:** Synchronizes the CLR interval with the RMF interval. The SYNCON command synchronizes the DEXAN CLR interval with the RMF interval, if RMF is running. The SYNCOFF command allows DEXAN data collection to run independently from RMF. With SYNCON, DEXAN output covers the same time period as RMF, so display figures are comparable to RMF output. The default is SYNCOFF, with a clear interval of 30 minutes. When SYNCON is specified, the CLR command is ignored until a SYNCOF command is issued.

**Note:** The SYNCOFF command restores the clear interval to 30 minutes, even if you used a CLR command previously to change the clear interval. You can use SYNC as a shortened version of SYNCON.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnnn, CNTFnn, CNTJnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnnn, SUSP, THRS, XCTnnnn, and XPGnnnn

**SYS**

**Type:** OMEGAMON Major command

**Description:** Displays general system information. The SYS major command displays the two-character identifier appended to the three following system PARMLIB members:

- **IEAIPSc**
  SRM uses this to define performance characteristics that are assigned to performance groups.

- **IEAOPTcc**
  Contains the parameters that affect swapping and other decisions made by the SRM.

- **IEAICScc**
  Contains the installation control specification that associates types of work with performance groups.
SYS also shows the SYSRES volume and address, and whether there is an active page or swap dataset.

```
SYS >> IPS=83,OPT=83,ICS=83, SYSRES=(MVS123,145) <<
  The SYSRES volume has an active page or swap dataset
```

A sample display of MVS running in compatibility mode is shown below.

```
SYS >> SYSRES=(MP422A,0327) OPT=AA,ICS=AA  <<
```

A sample display of MVS running in goal mode is shown below.

```
SYS >> SYSRES=(MP422A,0327) WLM GOAL MODE  <<
```

**Related Information:** Major of: A great many minor commands. For a complete list, see *System Operation Information Commands* in “Command Groupings” on page 17.

### SZAP

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Modifies the contents of data-only space storage.

**Caution**

There is a potential integrity exposure when using SZAP on hiperspaces. SZAP will use HSPSERV to read in a page of data from the target hiperspace, check the data, alter the data, and finally use HSPSERV to write the page back to the hiperspace. If someone else is writing to the same page of the hiperspace while this process is occurring, the newly entered data could be lost. There is no available enqueue mechanism to guard against this exposure.

```
-SZAP  jobname,spacename,addr,vercode,repcode
```

- Action character required for execution.
- **jobname**
  - The jobname or ASID in decimal of the owner of the data-only space.
- **spacename**
  - The name of the data-only space.
- **addr**
  - The starting address of the data. You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.
  - An anchor is the base address of an address specification. It can be:
The lengths of vercode and repcode must match. When necessary, an SRB will be scheduled into the address space of the TCB owning the data-only space to be zapped.

Here is an example of the SZAP command.

```
>SZAP MYJOB,MYSPACE,1000,00000005,00000008
>      >> OB7110: Memory Zap Successful <<
```

Because of the potential security risk associated with using SZAP, the .DSA command exists to provide an extra level of protection.

**Related Information:** Other Data Space and Hiperspace Storage commands: .DSA, OSPC, SCHN, SLST, and SSCN.
Commands and Keywords
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Commands and Keywords

/T

Type: OMEGAMON INFO-line command

Description: See /TAKE.

Related Information: None

TADR

Type: OMEGAMON Minor command (Authorized)

Description: Displays the unit address for the terminal of a TSO user. TADR is authorized because TSO keeps this information in a fetch-protected control block. (Note that VTAM terminals typically have no unit address; use TSNM instead.) Here is an example:

<table>
<thead>
<tr>
<th>TSOJ</th>
<th>TS145</th>
<th>TS031</th>
<th>TS089</th>
</tr>
</thead>
<tbody>
<tr>
<td>TADR</td>
<td>345</td>
<td>34F</td>
<td>341</td>
</tr>
</tbody>
</table>

Related Information: Minor of: Address space majors. See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Minor--Authorized Commands: MCTL, MNSW, MSWP, SWPI, SWPO, and TSNM

/TAKE

Type: OMEGAMON INFO-line command

Description: Takes the specified number of screen rows from a cross memory (XMF) or cross system (XSF) collector.

/TAKE nn cccc

nn The number of lines that the cross system/cross memory segment takes from segment cccc.

If you issue this command from a collector and do not specify cccc, it takes nn lines from the director’s screen segment. If nn is omitted, OMEGAMON takes all lines but one from the specified segment. For example, the following command takes 15 lines from the screen segment for collector A083:

/TAKE 15 A083

Related Information: None
Commands and Keywords

TAPE

**Type:** OMEGAMON Major command

**Description:** Selects all online tape drives. Below is an example of how to use the tape commands.

```plaintext
TAPE  380  385
dusr  IMSPROD  BMP01
dv01  001984  009081
dio  .R  6.5  5.1
tert  2
terp
```

**Related Information:** Major of: See Tape Information Commands in “Command Groupings” on page 17.

TCBS

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays the current TCB structure for the target user. This next screen shows a typical TCBS display.

```plaintext
PREEK  PAYROLL  ASID=25, collected at 15:39:39
==============================================================================
tcbs  Program  Mother  Daughter  Sister  Jobstep
+    IEAVAR00  IEESB605  (SELF)  (Region Control Task)
+    IEESB605  IEAVAR00  IEFIIC  IEBVTSDT  (SELF)  (Started Task Control)
+    IEFIIC  IEESB605  PAY1  (SELF)  (Initiator)
+    PAY1  IEFIIC  (SELF)
+    IEBVTSDT  IEAVAR00  (SELF)  (SVC Dump Task)
==============================================================================
```

This is a typical TCB structure for a batch job.

The following fields appear in the TCB display:

**Program** Load module name of the most recently created RB for each TCB. In this case, PAY1 indicates the name on the EXEC PGM= parameter.

**Mother Daughter Sister** Program names for the mother, daughter, and oldest sister TCBs of the Program TCB.

Note that most address spaces on this level point to themselves as the Jobstep TCB. You can use this information to easily construct a picture of the current TCB structure, as illustrated in the following figure.
The TCB structure associated with the previous display:

```
@----------
|          |
| IEAVAR00 |
|          |
%----^-----'
|          |
@----------@----------
|          |         |          |
| IEESB605 {---------} IEAVTSDT |
|          |         |          |
%----^-----'   %--------'
|          |
@----------
|          |
| IEFIIC   |
|          |
%----^-----'
|          |
@----------
|          |
| PAY1     |
|          |
%----------'
```

If you place an A in the label field of TCBS (so: ATCBS), OMEGAMON displays the actual TCB address under each TCB program name. This information may be useful if several TCBs in the same step invoke the same program.

If you place an X in the label field of TCBS (so: XTCBS), two extra lines appear for each TCB. The first line shows the storage protect key for the TCB and indicates whether the address space is APF authorized. The second line indicates whether it is DISPATCHABLE or NON-DISPATCHABLE. For those TCBs that cannot be dispatched, a short explanation appears to indicate which non-dispatchability bit was found set.

For example, the following message indicates that the TCB is merely waiting to post an ECB.

**NON-DISPATCHABLE: TOP RB WAITING ON ECB**

This is by far the most common reason for a TCB to be non-dispatchable.
You may optionally specify a 2-digit number in the operand field of TCBS to suppress the display of the first $nn$ TCBs. This number is useful if all of the TCBs do not fit on one screen.

**Important**

If the job being PEEKed has many TCBs, you may need to increase the maximum number of control blocks tested with the LOOPCOUNT keyword of the .SET command.

**Related Information:** Minor of: PEEK

Authorized Minors that Collect Data about Address Spaces: AMAP, DATA, DDNS, JOBS, MODS, STEP, and SUBP

**TCP2**

**Type:** OMEGAMON Minor command

**Description:** Displays total CPU utilization in seconds with a decimal fractional part. This is calculated as:

$$\text{TCB + SRB time}$$

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space CPU Activity minors: CPGS, CPU, CPU2, CPUL, DISP, DPRT, DVCT, JCAF, RCP%, RCPU, SEQN, SRBT, and SRB2

**TERP**

**Type:** OMEGAMON Minor command

**Description:** Displays the number of permanent read/write errors accumulated for a tape drive.

**Related Information:** Minor of: See Tape Information Commands in “Command Groupings” on page 17.

**TERT**

**Type:** OMEGAMON Minor command

**Description:** Displays the number of temporary read/write errors accumulated for a tape drive.

**Related Information:** Minor of: See Tape Information Commands in “Command Groupings” on page 17.

**THNK**

**Type:** OMEGAMON Minor command

**Description:** Displays TSO think time. (There are other entries with the same name. See the next entry for a description of THNK as a minor of SYS.)
Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, TLTW, TMCP, TMIO, TMLA, TMLR, MPD, TMSW, TMTR, TMWL, WAIT, and WATL.

THNK

Type: OMEGAMON Minor command

Description: Displays system think time for logical swapping. (There are other entries with the same name. See the previous entry for a description of THNK as a minor of address space majors.)

Related Information: Minor of: SYS

Other SRM information commands: CPGR, CWSS, LAFQ, LUIC, RASQ, RBEL, RCPD, RCPU, RCT, RCTA, RCTH, RCTI, RCTL, RDPG, RPAG, RPDD, RPDL, RREA, RTPG, RTPI, and RUIC.

THRS

Type: OMEGAMON Minor command

Description: Limits plot output to the most important DEXAN wait reasons by setting threshold. The THRS command limits plot output to the most important wait reasons. It is set by default to 5%. This means that only those wait reasons that account for more than 5% of the total wait time are included in the display. You can change this value by entering an operand with the THRS command. If no operand is specified, THRS displays the current value. For example:

```
DEX
THRS
```

results in:

```
DEX   >> DX0000 V750 running. Cycles=214 STIM=1.0 Elap= 1:30 MN SYNC <<
THRS   >> DX7200 Plot percentage threshold is 5%. <<
```

To change from the default of 5%, you must enter THRS with an operand. For example:

```
DEX
THRS3
```

results in:

```
DEX   >> DX0000 V750 running. Cycles=229 STIM=1.0 Elap= 1:45 MN SYNC <<
THRS3   >> DX7200 Plot percentage threshold is 3%. <<
```

Note: The screen format allows you to display a maximum of 14 wait reasons.

Related Information: Minor of: DEX
Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn,CNTS, END, FLST, FOFnnnn, FONTnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, XCTnnnn, and XPGnnnnn

TLBL

**Type:** OMEGAMON Minor command

**Description:** Displays type of label (SL, NL, NON-STD). BLP tapes appear as NL.

**Related Information:** Minor of: See Tape Information Commands in “Command Groupings” on page 17.

TLST

**Type:** OMEGAMON Immediate command

**Description:** Selects all tape drives (online/offline). A hyphen (-) in the command display indicates the offline tape drives selected.

**Related Information:** Other Device Listing command: DLST and GLST

TLTW

**Type:** OMEGAMON Minor command

**Description:** Displays time since last terminal wait.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TMCP, TMIO, TMLA, TMLR, TMPD, TMSW, TMTR, TMWL, WAIT, and WATL

TMCP

**Type:** OMEGAMON Minor command

**Description:** Displays time since last CPU usage evaluation.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMIO, TMLA, TMLR, TMPD, TMSW, TMTR, TMWL, WAIT, and

TMIO

**Type:** OMEGAMON Minor command

**Description:** Displays time since last I/O usage evaluation.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMLA, TMLR, TMPD, TMSW, TMTR, TMWL, WAIT, and WATL

**TMLA**

**Type:** OMEGAMON Minor command  
**Description:** Displays time since last analysis by SRM.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMLA, TMLR, TMPD, TMSW, TMTR, TMWL, WAIT, and WATL

**TMLR**

**Type:** OMEGAMON Minor command  
**Description:** Displays length of the last transaction.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMIO, TMLA, TMPD, TMSW, TMTR, TMWL, WAIT, and WATL

**TMPD**

**Type:** OMEGAMON Minor command  
**Description:** Displays time in current period.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMIO, TMLA, TMLR, TMSW, TMTR, TMWL, WAIT, and WATL

**TMSW**

**Type:** OMEGAMON Minor command  
**Description:** Displays time since last swap.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMIO, TMLA, TMLR, TMPD, TMTR, TMWL, WAIT, and WATL
**TMTR**

**Type:** OMEGAMON Minor command

**Description:** Displays time in transaction. This field displays the time since the last transaction began. If the performance group changed while the job was executing, TMTR reflects the time since that change. Normally, TMTR measures the total job time. Under certain circumstances, however, TMTR might measure only the time since a job step change.

If the MVS operator command SET IPS is executed, transactions that are swapped out at the time of execution do not have their times reset until they are swapped again.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMIO, TMLA, TMLR, TMPD, TMSW, TMWL, WAIT, and WATL

---

**TMWL**

**Type:** OMEGAMON Minor command

**Description:** Displays time since last evaluation by Workload Manager.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMIO, TMLA, TMLR, TMPD, TMSW, TMTR, WAIT, and WATL

---

**/TOP**

**Type:** OMEGAMON INFO-line command

**Description:** Scrolls to the top of the logical screen.

**Related Information:** None

---

**TPAL**

**Type:** OMEGAMON Major command

**Description:** Selects allocated tape drives.

**Related Information:** Major of: See Tape Information Commands in “Command Groupings” on page 17.

---

**TPBS**

**Type:** OMEGAMON Major command

**Description:** Selects busy tape drives.

**Related Information:** Major of: See Tape Information Commands in “Command Groupings” on page 17.
TPCU

**Type:** OMEGAMON Major command  
**Description:** Selects all online tapes.

TPCUxx

The value xx is a hexadecimal argument. The following example selects drives 580 through 58F:

TPCU58

**Related Information:** Major of: See Tape Information Commands in “Command Groupings” on page 17.

TPD#nn

**Type:** OMEGAMON Major command  
**Description:** Selects active TSO users in period nn. TPD# selects all TSO users regardless of their performance group. To select TSO users by performance group, use JPRnnn.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.  
See also .SPT.

TPFR

**Type:** OMEGAMON Major command  
**Description:** Selects online and free tape drives. TPFR is the complement of TPAL, which selects tape drives that are online and allocated.

**Related Information:** Major of: See Tape Information Commands in “Command Groupings” on page 17.

TPMT

**Type:** OMEGAMON Major command  
**Description:** Selects tape drives awaiting mounts.

**Related Information:** Major of: See Tape Information Commands in “Command Groupings” on page 17.

TPOF

**Type:** OMEGAMON Major command  
**Description:** Selects all offline tape drives.

**Related Information:** Major of: See Tape Information Commands in “Command Groupings” on page 17.
Commands and Keywords

TP16

Type: OMEGAMON Major command
Description: Selects 1600 BPI tape drives.
Related Information: Major of: See Tape Information Commands in “Command Groupings” on page 17.

TP38

Type: OMEGAMON Major command
Description: Selects 38000 BPI tape drives. The DVMP tape minor command dumps the tape class extension for 3480s in both native and compatibility modes.
Note: 3480 tape cartridge drives are also known as 3420-9 in compatibility mode.
Related Information: Major of: See Tape Information Commands in “Command Groupings” on page 17.

TP62

Type: OMEGAMON Major command
Description: Selects 6250 BPI tape drives.
Related Information: Major of: See Tape Information Commands in “Command Groupings” on page 17.

TP7T

Type: OMEGAMON Major command
Description: Selects 7-track tape drives.
Related Information: Major of: See Tape Information Commands in “Command Groupings” on page 17.

TP80

Type: OMEGAMON Major command
Description: Selects 800 BPI tape drives.
Related Information: Major of: See Tape Information Commands in “Command Groupings” on page 17.

TRACnn

Type: OMEGAMON Minor command
Description: Plots address space activity at \( nn \) millisecond intervals. OMEGAMON exception analysis automatically warns when an address space waited longer than a user-specified threshold. Often, however, address spaces suffer from degradation caused by interaction with other address spaces. Diagnosing such problems is difficult. The TRAC
command helps explore the reasons for address space degradation by closely analyzing many factors associated with the address space. It tracks the activity of an address space fifty times between screen refreshes.

The interval value on the right of the display is the true interval between samples, calculated after TRAC completes processing. On a system running perfectly, this number is the same as the $nn$ sampling interval. This number may vary due to your system's workload.

As the plot progresses from left to right, a number of fields reflect either the status of the address space or its activity since the last sample. Each sample is represented by one column in the display.

When a number appears for a particular sample, A-Z represent the numbers 10-35. Beyond Z, a plus sign (+) appears.

TRAC is very effective with the JPAG major command, which selects any address space currently waiting on a paging operation.

In the following figure, BATX selects batch jobs and TRAC01 tracks the first batch job YCAN006, with a sampling time of one millisecond. Although a one millisecond sample was requested, the result was an average of three milliseconds for each of the fifty samples. The reason for this is that higher priority work in the system prevented OMEGAMON from getting control every millisecond. This difference is usually not as great in dedicated mode with OMEGAMON running at a high priority.

The following fields appear on the display:

**CPU**
- T indicates address space used TCB CPU time since last sample.

**SRBT**
- S indicates address space used SRB CPU time since last sample. If running MVS/SP 5.2 and above, S indicates non-preemptable SRB time.
SRBP  P indicates address space pre-emptable SRB time increased during the sampling interval represented by the column.

SRBC  C indicates address space pre-emptable and/or client SRB time increased during the sampling interval represented by the column.

IOJ minor  Indicates the number of I/Os issued since last sample.

SWCT  Indicates the number of short waits since last sample.

SWAP  S indicates address space is swapped out.

DISP  Indicates user is waiting on resource as follows:

  .  Address space is waiting
  1  Address space is CPU-dispatchable

SEQN  Indicates the sequence number of the address space on the CPU dispatching queue. When a higher priority address space is dispatched before the one being traced, the sequence number becomes lower.

  Note: Because XA versions 2.1.7 and above do not maintain sequence numbers, SEQN displays contain blanks or zeros.

PGIN  Indicates number of non-common area, demand page-ins since last sample. For MVS/SP 4.2, indicates the number of non-common area, demand page-faults since last sample.

V-IN  Indicates number of VIO page-ins since last sample. For MVS/SP 4.2, indicates number of VIO page-faults since last sample.

CAIN  Indicates number of common area page-ins since last sample. For MVS/SP 4.2, indicates number of common area page-faults since last sample.

PGWT  P indicates address space is currently waiting on a page operation.

DEV  Indicates address space is waiting on a device at address xxx (pre-MVS/SP 5.1). When OMEGAMON II for MVS is running under MVS/SP 5.1 and above, DEV indicates that the address space is waiting on a device at address xxxx. (> indicates the point at which a new device is accessed.)

STAT  Indicates device status:

  D  Device busy
  C  Control unit busy
  +  Device + control unit busy (possible RESERVE on shared DASD)
  H  Waiting on channel
  N  Device not ready
  M  Device mount pending
From this display we can see that YCAN006 waited on I/Os most of the time; the DISP line is mostly dots. Program cycles as indicated by the T (TCB time) of CPU were used to initiate new I/Os. I/Os (as noted by the 1 count on IOJ) are always associated with SRB activity (see S on SRBT line). The address space performed no page-ins and did not wait on page operations. The address space wait activity was associated with I/Os specifically on device number 14E. The I/O wait activity on 14E was caused by a device busy status (STAT), which resulted from competition with address space YCAN005, as well as from competition of YCAN006 with itself at cylinder addresses 142 and 239.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Environment minor: AENV

See also JPAG.

**TRGP**

**Type:** OMEGAMON Immediate command

**Description:** Selects TSO performance group to monitor.

- **n** Specifies a list of decimal performance group numbers. These performance groups override groups specified in the user profile or any previous executions of TRGP. However, to save the numbers permanently, you must save the user profile.

- **OMEGAMO** Instructs OMEGAMON to select the performance groups that contain only TSO users; this is the default if the user profile does not contain any values.

- **OMUSER** Selects the performance groups already defined in the user profile; this is the default if you specified values in the profile.

TRGP comments itself out after execution.

To display the current TSO response time for one of these performance groups, use the TRSP minor command of SYS.

**Related Information:** TRSP
TRCT

**Type:** OMEGAMON Minor command

**Description:** Displays transaction count for swapped in address spaces.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

TRPG

**Type:** OMEGAMON Minor command

**Description:** Displays transaction report performance group number. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

TRSP

**Type:** OMEGAMON Minor command

**Description:** Displays average TSO response time. This command requires RMF. TRSP shows average TSO response time by performance group cumulative over the current RMF interval. These performance groups are specified with the TRGP immediate command. If you do not specify performance groups, OMEGAMON selects performance groups containing only TSO users.

```
SYS    >> IPS=83,OPT=83,ICS=83, SYSRES=(MVS134,145) <<
TRSP   >> Perf. Groups: 4 7 <<
+     #Trans= 50 Swaps/Trans= 3.8 Response Sec= 2.311
```

The previous figure shows the number of transactions, swaps per transaction, and response time (in seconds) for performance groups 4 and 7.

This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** TRGP

TRXC

**Type:** OMEGAMON Minor command

**Description:** Displays transaction class report performance group name.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.
TRXN

Type: OMEGAMON Minor command

Description: Displays transaction name report performance group name. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

TSEQ

Type: OMEGAMON Minor command

Description: Displays the file number being accessed on an open tape.

Related Information: Minor of: See Tape Information Commands in “Command Groupings” on page 17.

.TSF

Type: OMEGAMON Immediate command

Description: Displays and sets TSF (the Timed Screen Facility).

.TSFnn

The .TSF00 command displays the current status of the TSF feature (ON/OFF), and lists all entries. The TSF table is shipped with 99 blank entries. For example:

<table>
<thead>
<tr>
<th>.TSF00</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Time=0000  SS=<em>NONE</em>  DAY=DAILY</td>
</tr>
<tr>
<td>2</td>
<td>Time=0000  SS=<em>NONE</em>  DAY=DAILY</td>
</tr>
<tr>
<td>3</td>
<td>Time=0000  SS=<em>NONE</em>  DAY=DAILY</td>
</tr>
<tr>
<td>4</td>
<td>Time=0000  SS=<em>NONE</em>  DAY=DAILY</td>
</tr>
</tbody>
</table>

Enter .TSFnn to display entry nn in the TSF table. To define an entry, type .TSF followed by the number of the entry. For example, type .TSF01 to produce:

.TSF01  Time=0000  SS=*NONE*  DAY=DAILY

You can type the new entry over the current entry, press Enter, and the value is reset. If you want to change an entry that doesn’t appear on the physical screen, you can specify an argument to skip nn entries. Type

.TSF00 20
Commands and Keywords

to display entries 21 through 99 in the TSF table, skipping the first 20. Following are the keywords and valid entries.

**Time**
Specifies the time of day (from 0000 to 2400) to invoke the screen. `TIME=+nn` invokes the screen every `nn` minutes.

**Note:** The screen space will not execute while the `TIME=+nn` entry remains on your current screen.

**SL or SS**
Specifies the screen space to invoke if TSF is in effect. SS specifies the screen space to invoke, but does not turn on the log. SL automatically turns on the REPORT log when the exception trips, and screen space logging starts. You must specify either SS or SL for TSF to work.

**DAY**
The valid entries for day of week are MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY, SUNDAY, WEEKDAY, WEEKEND, and DAILY. The days of the month are also valid entries (numerals 1 through 31). The default value is DAILY. You may abbreviate the input as long as it is unique, and as long as the day of the week is recognized.

You may specify day combinations by enclosing the names of the days within parentheses, and by separating each day with either a comma or a blank.

This example shows five TSF entries.

<table>
<thead>
<tr>
<th>.TSF01</th>
<th>1</th>
<th>TIME=1800</th>
<th>SL=WENDSHFT</th>
<th>DAY=DAILY</th>
</tr>
</thead>
<tbody>
<tr>
<td>.TSF02</td>
<td>2</td>
<td>TIME=0600</td>
<td>SS=WEEKSTRT</td>
<td>DAY=MONDAY</td>
</tr>
<tr>
<td>.TSF03</td>
<td>3</td>
<td>TIME=1200</td>
<td>SL=NOONTIME</td>
<td>DAY=(TH,F)</td>
</tr>
<tr>
<td>.TSF04</td>
<td>4</td>
<td>TIME=0800</td>
<td>SS=MONTHEND</td>
<td>DAY=30</td>
</tr>
<tr>
<td>.TSF05</td>
<td>5</td>
<td>TIME=+30</td>
<td>SL=STATUS</td>
<td>DAY=DAILY</td>
</tr>
</tbody>
</table>

**TSF01**
Executes and logs screen space WENDSHFT at 6:00 PM daily.

**TSF02**
Executes screen space WEEKSTRT at 6:00 AM every MONDAY.

**TSF03**
Executes and logs screen space NOONTIME at 12:00 PM every Thursday and Friday.

**TSF04**
Executes screen space MONTHEND on the 30th of each month at 8:00 AM.

**TSF05**
Executes and logs screen space STATUS every 30 minutes every day.

**Related Information:** Other Timed Screen Facility commands: /LOG OUT and OPTN
TSNM

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Displays the symbolic name of a TSO terminal as it is defined to TCAM or VTAM. TSNM is authorized because TSO keeps this information in a fetch-protected control block. Here is an example:

<table>
<thead>
<tr>
<th>TSOJ</th>
<th>TS145</th>
<th>TS031</th>
<th>TS089</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSNM</td>
<td>L0413</td>
<td>L0416</td>
<td>RCRT0005</td>
</tr>
</tbody>
</table>

**Related Information:** Minor of: Address space majors. See Address Space Information Commands in “Command Groupings” on page 17.

Address Space Minor--Authorized Commands: MCTL, MNSW, MSWP, SWPI, SWPO, and TADR

TSO

**Type:** OMEGAMON Immediate command

**Description:** Executes TSO command or CLIST from OMEGAMON. The TSO command is available only when you run OMEGAMON in TSO mode.

**Related Information:** None

TSOD

**Type:** OMEGAMON Major command

**Description:** Selects TSO users in delayed status. Delayed status is due to the RTO parameter specification on a performance group. This command is not valid when the system is running in goal mode under MVS/SP 5.1 and above.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

TSOJ

**Type:** OMEGAMON Major command

**Description:** Selects TSO users logged on. The user does not have to be active. Sometimes the word *LOGON* appears. This means that a TSO address space was created, but the logon process did not complete. This is analogous to an idle initiator for batch address spaces.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.
TSOL

**Type:** OMEGAMON Major command

**Description:** Selects TSO users in logically swapped status.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

TSOX

**Type:** OMEGAMON Major command

**Description:** Selects TSO users in a transaction. This refers to users who pressed Enter and are waiting for the command to complete.

**Related Information:** Major of: See Address Space Information Commands in “Command Groupings” on page 17.

See also .SPT.

TSR

**Type:** OMEGAMON Immediate command

**Description:** Displays or modifies TSO response time thresholds. The TSR command lets you display or modify response time thresholds for the first 10 periods of TSO. You can define response time thresholds using either seconds or milliseconds. The TSR command uses the multi-line input facility to make it easy for you to change displayed values. The following considerations apply to the multi-line input facility:

- You can modify any display line that begins with a colon in column 1.
- Blanking out fields has no effect; OMEGAMON redisplays the line on the next cycle.
- To change a setting, type over the displayed value and press Enter.

The TSR command has no operands or keywords. When you enter it, the existing thresholds for TSO periods 1 through 10 are displayed, as shown in the following figure.

```
+ Periods: 1     2     3     4     5     6     7     8     9     10
: Thrshld: 3     15    60    90    90    90    90    90    90    90
: Threshold scale = sec (Specify MS or SEC)
```

To change a threshold, type over the displayed value and press Enter. You can specify a threshold of zero for any period; a threshold of zero indicates that the TSOR exception will not trip for that period.

**Related Information:** Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, XACB, XAS, XGRP, XGSW, XSUM, XTRP, and XTXT
**TWSF**

**Type:** OMEGAMON Minor command  
**Description:** Displays target working set size in frames.  
**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.  
Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSS, VSC, WKST, and WSSI

**TWSS**

**Type:** OMEGAMON Minor command  
**Description:** Displays target working set size in K (1024 bytes). This is valid for SE2 and above only.  
**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.  
Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, VSC, WKST, and WSSI
Commands and Keywords

/U

Type: OMEGAMON INFO-line command
Description: See /UP.
Related Information: None

/UP or /U

Type: OMEGAMON INFO-line command
Description: Scrolls up the specified number of lines.

/UP nnn

nnn Scrolls nnn lines (from 1 to 999).
CSR Scrolls according to the current location of the cursor. If the cursor is on the INFO-line, the scroll amount is a page.
MAX Scrolls to the top of the screen.
PAGE Scrolls so that the current cursor position is at the top of the screen. This is the default.
TOP Scrolls to the top of the screen.

The following example scrolls up 20 lines.

/UP 20

If you have assigned the /UP command to a function key (the default is F19), you can type any of the optional arguments on the INFO-line before you press the function key, and OMEGAMON interprets the entry as if you had typed the command plus the arguments.

/UP works only if the number of logical rows (LROWS) is defined to a number greater than the number of physical rows on the terminal. This definition can be changed with the LROWS startup parameter.

Related Information: None

.VAR

Type: OMEGAMON Immediate command
Description: Sets, displays, or deletes variables. You can use OMEGAMON variables to build generic screen spaces, pass values to other screen spaces, and alter the flow of screen spaces (.SGO).

[C].VAR

{SET &variable value (comment)}
{LIST (&variable)}
{DEL &variable}
Commands and Keywords

[CPSER  {=|EQ|GE|GT|LE|LT|NE} argument]
[DIR    {=|EQ|GE|GT|LE|LT|NE} argument]
[MODE   {=|EQ|GE|GT|LE|LT|NE} argument]
[OPSYS  {=|EQ|GE|GT|LE|LT|NE} argument]
[PREFIX {=|EQ|GE|GT|LE|LT|NE} argument]
[SMFID  {=|EQ|GE|GT|LE|LT|NE} argument]
[UNIT   {=|EQ|GE|GT|LE|LT|NE} argument]
[USER   {=|EQ|GE|GT|LE|LT|NE} argument]
[&var   {=|EQ|GE|GT|LE|LT|NE} argument]

Keywords for Conditional Setting of Variables

The following keywords are available for conditional setting of variables. Their values are initialized by OMEGAMON.

C Requests conditional processing. Allows you to specify a value for a given variable when the criteria is matched.

SET or S Sets or changes the value of a variable.

&variable The variable must be 1 to 8 characters. The ampersand (&) preceding the variable name is optional.

value 1- to 64-character alphanumeric string assigned to &variable. If special characters or blanks are used in the string, single quotes are required.

comment 1- to 35-character optional programmer comment that follows the variable string.

LIST or L Displays all existing variables or a specified variable. If you omit &variable, OMEGAMON lists all variables.

DEL Deletes the specified variable.

The following keywords are available for conditional setting of variables.

CPSER CPU serial number. In the case of a multi-processor environment, the supplied CPU serial number is compared with the serial numbers of all CPUs in the complex. If the relational argument is equal (= or EQ), OMEGAMON will set the variable the first time it finds a match. If the relational argument is not equal (NE), OMEGAMON will set the variable only after it has checked all of the CPUs in the complex.

DIR The ID assigned to the director in cross system mode.

MODE The 3-character code for the OMEGAMON mode of operation. It is displayed on the INFO-line during a session. Possible values are:
OMEGAMON-Defined Variables

OMEGAMON defines the following variables internally for your use:

- &ZFRSTSS - First screen space name.
- /ZOOM INFO-line command variables:
  - &ZOOM - data found at the cursor location
  - &ZOOMC - command or exception name field
  - &ZOOMS - originating screen space
- Exception variables:
  - &ZXccccT - threshold value
  - &ZXccccV - last trip value
  - &ZXccccW - worst trip value

The variable ccccc is the exception name.

Note: The letter Z is reserved for Candle Corporation use as the first alpha character of a variable.
Relational Operators

The relational operators require blanks on either side except for the equal sign (=).

=    Keyword equals argument. The equal sign can be entered without blanks on either side of it.

EQ    Keyword equals argument.

GE    Keyword is greater than or equal to argument.

GT    Keyword is greater than argument.

LE    Keyword is less than or equal to argument.

LT    Keyword is less than argument.

NE    Keyword is not equal to argument.

argument  The argument is a 1- to 8-character value to which OMEGAMON compares the keyword. OMEGAMON variables are permitted. The keyword and argument can be any variable name set with the .VAR command.

Examples of Setting Variables

```bash
.COMMAND

.VAR SET &NXTSCRN MONITOR
.VAR SET &DEVICE 123
```

set values for NXTSCRN and DEVICE. You can now use those variables in a screen space. For example,

```bash
DEV &DEVICE
DIO
.SGO &NXTSCRN
```

OMEGAMON interprets the screen space entries as if you had entered the following commands:

```bash
DEV 123
DIO
.SGO MONITOR
```

Examples of Conditionally Setting Variables

In this example, the variable SYSTEM will be set to A if the variable SWITCH has previously been set to YES; SYSTEM will be set to B if SWITCH has previously been set to NO; and SYSTEM will be set to C if SWITCH has previously been set to MAYBE.

```bash
C.VAR SET &SYSTEM A &SWITCH=YES
C.VAR SET &SYSTEM B &SWITCH=NO
C.VAR SET &SYSTEM C &SWITCH=MAYBE
```

In the following example, the variable TOKEN will be set to MVS only if the product prefix is OM.
C.VAR SET &TOKEN MVS PREFIX=OM

Related Information: None

VMAP

Type: Minor command

Description: Displays map of MVS virtual storage. VMAP shows how big each area is and what virtual range defines it.

<table>
<thead>
<tr>
<th>SYS</th>
<th>MAJOR AREA</th>
<th>SIZE</th>
<th>MINOR AREA</th>
<th>SIZE</th>
<th>ADDRESS RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMAP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTENDED PRIVATE</td>
<td>2,017M</td>
<td>2,017M</td>
<td>01F00000-7FFFFFFF</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTENDED COMMON</td>
<td>15M</td>
<td>CSA</td>
<td>3,008K</td>
<td>01071000-01EFFFFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PLPA</td>
<td>2,252K</td>
<td>019DD000-01C0FFFFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SQA</td>
<td>8,448K</td>
<td>0119D000-019CFFFFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>READ/WRITE NUC</td>
<td>548K</td>
<td>01114000-0119CFFFFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>READ-ONLY NUC</td>
<td>1,101K</td>
<td>01000000-01113667</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMON</td>
<td>6M</td>
<td>READ-ONLY NUC</td>
<td>120K</td>
<td>00FE2000-00FFFFFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>READ/WRITE NUC</td>
<td>168,128</td>
<td>00FB8000-00F1OBFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SQA</td>
<td>512K</td>
<td>00F38000-00F37FFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PLPA</td>
<td>4,004K</td>
<td>00B4F000-00B37FFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MLPA</td>
<td>4K</td>
<td>00B42000-00B42FFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSA</td>
<td>3,384K</td>
<td>00800000-00B42FFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRIVATE</td>
<td>10,236K</td>
<td>V=V</td>
<td>8,172K</td>
<td>00005000-007FFFFFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(V=R)</td>
<td>512K</td>
<td>00005000-00084FFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SYSTEM AREA</td>
<td>16K</td>
<td>00001000-00004FFF</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ABS ZERO FRAME</td>
<td>4K</td>
<td></td>
<td>4K</td>
<td>00000000-00000FFF</td>
<td></td>
</tr>
</tbody>
</table>

In this example, the V=V region overlaps the V=R region.

Note that if the Read/Write value is not divisible by 1024, it appears in bytes.

Related Information: Minor of: SYS

Other system storage minors: CSA, CSAR, ECSA, EMAP, ESAV, ESCM, ESDR, ESMG, ESMV, ESOF, ESON, ESP, ESP, ESPO, ESPR, ESQA, RMAP, and SQA

VSC

Type: OMEGAMON Minor command

Description: Displays the number of VIO slots used by an address space on page datasets.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, WKST, and WSSI
Commands and Keywords

.VTM

**Type:** OMEGAMON Immediate command

**Description:** Displays terminal ID and session information for all users logged onto OMEGAMON in VTAM mode. This command allows a user running in a multi-session environment moderated by KOBVTAM to display information about other KOBVTAM users. You can use this command to monitor and manage access to the VTAM environment. Dedicated mode users do not show up. Here is an example of the display.

<table>
<thead>
<tr>
<th>.VTM</th>
<th>Userid</th>
<th>Terminal</th>
<th>Mode</th>
<th>Session Start</th>
<th>Last Update</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>TSOX07</td>
<td>L65F</td>
<td>VTM</td>
<td>02/11/92 11:45:32</td>
<td>02/12/92 13:14:55</td>
</tr>
<tr>
<td>+</td>
<td>TSOX06K</td>
<td>BBLVM06</td>
<td>VTT</td>
<td>02/12/92 13:57:32</td>
<td>IN INITIALIZATION</td>
</tr>
<tr>
<td>+</td>
<td>AFOPER</td>
<td>BBLVM04</td>
<td>VTT</td>
<td>02/12/92 11:43:22</td>
<td>02/12/92 13:57:12</td>
</tr>
<tr>
<td>+</td>
<td>TSOX21</td>
<td>L616A09</td>
<td>VTS</td>
<td>02/12/92 10:23:31</td>
<td>02/12/92 11:24:31</td>
</tr>
<tr>
<td>+</td>
<td>TSOX36A</td>
<td>L674</td>
<td>VTM</td>
<td>02/12/92 13:40:33</td>
<td>02/12/92 13:57:51</td>
</tr>
<tr>
<td>+</td>
<td>TSOX04</td>
<td>L655</td>
<td>VTD</td>
<td>02/12/92 11:35:32</td>
<td>02/12/92 12:14:55</td>
</tr>
</tbody>
</table>

The Mode field indicates the type of session. The possibilities are:

- **VTD** A director segment running under VTAM in a cross memory or cross system mode session.
- **VTM** A VTAM mode session.
- **VTS** An ISPF mode session running under VTAM.
- **VTT** A TSO mode session running under VTAM.

The Userid field in this display will be blank if external security is not being used to control logon access.

**Related Information:** None

/WAIT

**Type:** OMEGAMON INFO-line command

**Description:** Controls synchronization of a cross system or cross memory collector with the director. (There are other entries with the same name. See the next entry for a description of WAIT, a minor of address space majors.)

/WAIT ccc

- **ON** Specifies that the collector synchronize with the director.
- **OFF** Specifies that the collector not synchronize with the director.

**Related Information:** None
WAIT2

**Type:** OMEGAMON Minor command

**Description:** Displays the time an address space has been waiting. (There are other entries with the same name. See the previous entry for a description of /WAIT, an INFO-line command.)

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMIO, TMLA, TMLR, TMPD, TMSW, TMTR, TMWL, and WATL

WAMPnn

**Type:** OMEGAMON Minor command

**Description:** Dumps SRM Workload Activity Measurements Table performance group period entry nn, where nn is a decimal number. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

To display the entire table, use WAMT. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMĐTnn, GDA, GVTT, ICTP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMT, and WMST

WAMT

**Type:** OMEGAMON Minor command

**Description:** Dumps SRM Workload Activity Measurements Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

To display a single entry in the table, use WAMPnn. This command is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMĐTnn, GDA, GVTT, ICTP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMT, and WMST

.WAT

**Type:** OMEGAMON Immediate command

**Description:** Waits nn seconds before executing all commands below.

.WATnn
The .WAT command provides a delay mechanism for the execution of commands that require information from a currently executing command, such as one that involves calculation of a rate.

The following example submits a job, then waits 10 seconds to check the status of the job.

```
TSO SUBMIT 'USER1.JCL.CNTL(JOBA)'
.WAT10
TSO STATUS
```

**Related Information:** None

**WATL**

**Type:** OMEGAMON Minor command

**Description:** Displays step wait time limit.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Time Information minors: ELAP, THNK, TLTW, TMCP, TMIO, TMLA, TMLR, TMPD, TMSW, TMTR, TMWL, and WAIT

**WHO**

**Type:** OMEGAMON Immediate command

**Description:** Displays all holders and requestors of a specific enqueue.

**WHO**

The \( nn \) argument skips the first \( nn \) lines of output.

The WHO command lets you display the jobs that have requested control of a resource in three ways:

- You can display a specific major and minor enqueue list:
  
  ```
  WHO SYSIEFSD,Q4
  ```

- You can display a specific major enqueue and all of its minors:
  
  ```
  WHO SYSIEFSD
  ```

- You can display a specific major enqueue and the minor enqueues that match a pattern, using an asterisk (*) as a wild card:
  
  ```
  WHO SYSIEFSD,Q*
  ```

  selects all minor enqueues of the SYSIEFSD major enqueue that begin with Q.

If the major or minor enqueue name is in hexadecimal, precede the name with an X and enclose the characters in single quotes (‘):

```
WHO SYSIEFSD,X’00002048’
```

The asterisk as a wild card works in hexadecimal format as well:

```
WHO SYSIEFSD,X’00’
```
Note: If special characters are used in the dataset name, you must enclose the dataset name in single quotes.

The following shows the output of the WHO command when it is used to display a specific major and minor enqueue list:

```
WHO SYSIEFSID Q4
> OWNERSHIP TYPE JOBNAME SYSID
> Exclusive Owner TSO TSOABC GRS1
> Exclusive Waiter BATCH PROD0684 GRS1
```

**OWNERSHIP** Indicates whether the job has the enqueue with disposition share (shared) or old (exclusive), and whether the job currently has the enqueue (owner) or is waiting for the enqueue (waiter).

**TYPE** Indicates whether the user is a started task (STC), time sharing user (TSO), batch job (BATCH), mount job (MOUNT), or no longer exists and did not DEQUEUE the resource (NODEQ).

**JOBNAME** Shows the JOBNAME/TSOID of the user.

**SYSID** Shows the system ID of the GRS member of the GRS ring. For a definition of the term ring, see the IBM *Initialization and Tuning Guide*. If the system is not part of a GRS ring, the SYSID is always NONAME.

For generic requests, a display line preceding each group of users for the specific resource shows the full major and minor enqueue names. If the generic request specifies the minor name in hexadecimal, this display line shows the full minor name in hexadecimal. Optionally, you can put an X in column 1 of the command line to require OMEGAMON to display the minor name in hexadecimal.

The resulting output display for a generic request looks like this:

```
WHO SYVSAM,X'00''
> OWNERSHIP TYPE JOBNAME SYSID
  Name=SYVSAM, X'0079A00B36280C9'
  Shared Owner STC EPICOL NONAME
  Shared Owner BATCH ACP970 NONAME
> Name=SYVSAM, X'0079A00B36280D6'
  Shared Owner BATCH WHS120T NONAME
```

**Related Information:** Other Enqueue information command: XQCB

**WKST**

**Type:** OMEGAMON Minor command

**Description:** Displays working set size in K. WKST is calculated as \( 4 \times \text{the frame count of a swapped in address space (FMCT)} \) or if expanded storage is in use, \( 4 \times \text{the frame count plus expanded storage frame count (FMCT + ESFC)} \).
When an address space is physically swapped out, an S is displayed followed by the last working set size. When the allocated frame count is 0, address spaces may be resident and still show an S for FMCT or WKST.

Related Information: Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, and WSSI

**WMST**

**Type:** OMEGAMON Minor command

**Description:** Dumps SRM Workload Manager Specification Table. By default the display is in hexadecimal and character format. To view the display only in character format, add a C in column 1.

**Related Information:** Minor of: DUMP

Other Control Block Display minors: ASCBnn, ASMV, ASVT, ASXBnn, CCT, CMBxxx, CMCT, CPMT, CSD, CVT, DMDTnn, GDA, GVT, ICHP, ICT, LCCAnn, LSCT, MCT, OUCBnn, OUXBnn, PAREnn, PART, PCCAnn, PCT, PGDT, PGVT, PSAn, PVT, RABC, RCE, RCT, RIT, RMCA, RMCT, RMPT, SAREnn, SART, SCVT, SPL, WAMPnn, and WAMT

**WPF**

**Type:** OMEGAMON Immediate command

**Description:** Initiates, terminates, or displays status of the Workload Profile Facility (WPF).

**WPF START PRDS(name.of.profile.dataset)**

**STOP**

**START** Starts WPF:

**PRDS/DSN** Specifies the name of EPILOG profile dataset. PRDS and DSN are optional and synonymous. You can specify one or the other. If you have not previously specified a profile dataset, you must use PRDS or DSN to specify one.

A profile dataset specified with PRDS or DSN is saved for the duration of the OMEGAMON session. To save the profile dataset permanently, it must be saved as part of your user profile.

**STOP** Stops WPF and releases associated datasets.

Below is an example of WPF with no operands.

```
WPF
+ PRDS(USER01.V750.PRDS) status is active
```
**Commands and Keywords**

**Related Information:** Other Workload Profile Facility Commands: dWPF, EPCE, EPRE, ETAE, ETRE, and jWPF

**WSIZnn**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Alters the work area size for FNDU data. (There are other entries with the same name. See the next entry for a description of WSIZnnn as a minor of SEEK.)

To change the work area size, enter WSIZnn, where nn is the value K.

**Related Information:** Minor of: FNDU and PEEK

Other Find Users of a Device Authorized minors: DSPA, DSPC, and DSPO

**WSIZnnn**

**Type:** OMEGAMON Minor command (Authorized)

**Description:** Controls the size of the work area used for the DATA minor command of SEEK. (There are other entries with the same name. See the previous entry for a description of WSIZnn as a minor of FNDU.)

To change the work area size, enter WSIZnnn, where nnn is the value K.

**Related Information:** Minor of: PEEK and SEEK

Other SEEK Contention Analysis Authorized minors: DATA and PLOT

**WSSI**

**Type:** OMEGAMON Minor command

**Description:** Displays working set size at last swap in. Displays frame count.

**Related Information:** Minor of: See Address Space Information Commands in “Command Groupings” on page 17.

Other Address Space Storage Activity minors: CSA, DSPC, ECSA, ESFC, ESQA, FIXF, FMCT, FXFB, FXFR, NVSC, SQA, TWSF, TWSS, VSC, and WKST
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Commands and Keywords

XACB

Type: OMEGAMON Immediate command

Description: Sets or displays exception thresholds and attributes. For each individual exception, XACB allows you to:

- Set a threshold.
- Control the state (for example, ON, OFF).
- Define display characteristics for warnings.
- Request audible alarm when the exception trips.
- Control the frequency for OMEGAMON sampling.
- Define parameters for XLF (exception logging facility) and ASF (automatic screen facility).

XACB

[[ALL|GROUP=cc|LIST=cccc] FORCE]
[[VERBOSE|TERSE] FORCE]

(Blank) Lists all exceptions with their current settings in columnar display. This is the default. Individual exceptions are described at the end of the explanation of the XACB command.

ALL Lists all exceptions in invocation sequence.

GROUP Specifies the 2-character identifier (cc) to be associated with the exception. Use GDFN to display currently defined groups.

LIST Specifies the exceptions (cccc) to display. The exceptions requested are listed with their current settings, which you can modify. Individual exceptions are described at the end of the explanation of the XACB command.

VERBOSE Multi-line display for each defined exception. Displays all exception parameters.

TERSE Single line display for each defined exception. Displays the following exception parameters:
- exception name
- threshold value
- display value
- exception state
- bell state

FORCE This keyword causes the exception analysis routine to become active. If the exception trips based upon the current threshold settings, an exception message will appear as if the exception analysis command were actually executing. To display a sample message text of a specific exception, the STATE=TEST must be specified along with the FORCE keyword.
XACB displays parameters in the following format:

```
XACB LIST=cccc
  : cccc
  +  DISPLAY Parameters:       THRESHOLD Parameters:       XLF Parameters:
  :    State=              :    Threshold=             :    Auto=
  :    Group=              :    Display=               :    Log=
  :    Bell=               :    Attribute=             :    Limit=n (n)
  +  BOX Parameters:       CYCLE Parameters:            Repeat=nn
  :    Boxchar=’ ’        :    ExNcyc=n               :    Persist=nn
  :    Boxclr=             :    Stop=n(m)              :    Sc=
  :    Boxattr=            :    Cumulative=n           :
```

To change an option value, type over the displayed value and press Enter. The next time OMEGAMON invokes this exception, it uses these new characteristics.

**DISPLAY Parameters**

**STATE**

One of the following:

- **NDSP**
  - Allows you to suppress the display of exceptions that you do not need to act on at this time. OMEGAMON treats the exception as ON, but the exception does not appear. Instead, it can be logged to the XLFLOG, or can trigger an automatic screen space routine when it occurs.

- **ON**
  - Invokes this exception during the current OMEGAMON session.

- **OFF**
  - Does not invoke this exception during the current OMEGAMON session.

- **TEST**
  - This parameter is used primarily for the purpose of training or demonstration. In conjunction with the FORCE keyword, it causes a sample exception message to be displayed. When the TEST state forces a message to display, a T appears in column 2 of the message lines under EXSY.

  **Note:** The zoom function is not available for exceptions in test mode.

**GROUP**

Specifies the 2-character group identifier. Candle Corporation ships the product with groups predefined. Use the GDFN command to display existing groups or to define new groups. The settings for groups override the settings for individual exceptions.

**BELL**

Specifies whether the audible alarm on the terminal sounds when this exception occurs. The BELL must be activated with the OPTN BELL=ON command.
**THRESHOLD Parameters**

**THRESHOLD** Exception threshold. For exceptions that are just either ON or OFF and do not have a numeric threshold, this entry is blank.

**DISPLAY** DISPLAY parameter: in XACB

Sets the exception display color or intensity. Can be set to the variables Clr1 through Clr7. The variable values are defined with the .SCC command. They are associated with the colors listed below, and follow the same order.

Optionally, this value can be HI or LO on four- or non-color terminals and one of the following on terminals that support the extended data stream.

- **RE** Sets the exception text red.
- **BL** Sets the exception text blue.
- **YE** Sets the exception text yellow.
- **PI** Sets the exception text pink.
- **GR** Sets the exception text green.
- **TU** Sets the exception text turquoise.
- **WH** Sets the exception text white.
- **NONE** Specifies the hardware default colors.

**Note:** The presentation of the intensity or color level on your terminal is determined by the type of terminal and the settings of the .SCC keywords.

**ATTRIBUTE** Sets an additional highlight attribute for the box.

- **BLINK** Turns on blinking for an exception.
- **RVRS** Displays message in reverse video.
- **UNDR** Underscores a message.
- **NONE** Uses the default extended highlight attributes.

These attributes take effect only in modes other than ISPF and cross memory/cross system on terminals that support the extended data stream.

**XLF Parameters**

These parameters allow you to activate the XLF and ASF features for all occurrences of any given exception, or only if the exception persists for a specified number of cycles. You can also set a limit on the number of times a given exception invokes the XLF or ASF feature.

- **Auto** Controls the status of ASF for this exception (ON/OFF). See the OPTN command for an explanation of ASF.
- **Log** Controls the status of XLF for this exception (ON/OFF). It does not affect logging for ASF. See the OPTN command for an explanation of XLF.
**Limit**

Limits the number of times (nn) XLF and/or ASF is invoked if the exception occurs. If you specify **Limit=00**, no events are logged. If you specify **Limit=NONE**, XLF and/or ASF are invoked each time the exception occurs. The parenthetical number to the right of this parameter indicates the remaining number of times that the exception will be logged. You can reset Limit to continue logging the exception.

**Repeat**

Used with the **Persist** threshold. **Repeat=YES** specifies that XLF logging or ASF action occurs each time the **Persist** threshold is reached. For example, if **Persist=5**, the exception condition persists for 15 cycles, and logging is in effect, then the message would be logged three times. If **Repeat=NO**, the message would be logged only once as specified with the **Persist** parameter.

**Persist**

Logs the exception message and/or invokes the ASF screen spaces when the condition persists for nn consecutive OMEGAMON cycles. After it has reached the threshold, the message is logged only once (or ASF is invoked only once) unless the condition stops for at least one cycle and then trips again. If you specify **Persist=00**, no events are logged. The default is 0 cycles.

**Sc**

You can dynamically alter the second character of this keyword to either an S or an L. You must specify this parameter for ASF to work.

**SL**

Specifies the screen space to invoke if ASF is in effect (**Auto=ON**), and specifies that the output of the ASF screen spaces is to be logged. The OMEGAMON REPORT log automatically turns on when the exception trips and screen space logging starts.

**SS**

Specifies the screen space to invoke if ASF is in effect. It does not turn on the log.

Here is an example of defining the XCSA exception for ASF with logging.

```
XACB
:XCSA
+ DISPLAY Parameters:
  State=ON
  Group=OP
  Bell=ON
+ BOX Parameters:
  Boxchar='+'
  Boxclr=CLR2
  Boxattr=BLINK
XLF Parameters:
  Auto=ON
THRESHOLD Parameters:
  Threshold=85
  Display=Red
  Attribute=NONE
CYCLE Parameters:
  ExNcyc=0
  Stop=0 (7)
Cumulative=5
```

---

**Commands and Keywords**

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BOX Parameters

BOXCHAR  Specifies box character, enclosed in single quotes. The default is a plus sign (+). Do not use a single quote as a box character, since it is the delimiter. Enter NOBOX without quotes to turn off boxing for an exception. If Boxchar=NOBOX, then the BOXCLR and BOXATTR parameters have no effect.

BOXCLR  Sets the color or intensity of the exception box. The Boxclr= keyword settings follow the same format as the Threshold parameter, Display=.

BOXATTR  For seven-color terminals modes other than ISPF or cross-memory, sets an additional highlight attribute for the box.

BLINK  Turns on blinking for an exception.
RVRS  Displays message in reverse video.
UNDR  Underscores a message.
NONE  Specifies the hardware default attributes.

If you set Boxchar=NOBOX, then the Boxclr= and Boxattr= parameters have no effect.

If you do not set color and highlighting attributes for the box, OMEGAMON uses those that you set for the exception.
CYCLE Parameters

EXNCYC
Sets the frequency for checking the exception at every \( n \) OMEGAMON cycles. If this parameter is set to 0 or 1, it will be tested every OMEGAMON cycle. If it is set to a higher number, it will only be tested each time that number of cycles elapses. The default setting for EXNCYC is 0.

This parameter is provided so that you can tailor high overhead exceptions for your own environment. You can avoid using CPU time to test them every cycle. For example, if you have many devices in the class being examined by an exception (such as DASD or tape), you may want to set this parameter for corresponding exceptions in the hardware group.

When an exception that is not tested every cycle trips, the exception message appears on the screen as usual. In the following cycles during which it is not scheduled for testing, the exception message redisplays on the screen below the primary exception analysis display.

See also the .NXE immediate command that controls the display of frequency-limited exceptions.

STOP=n (m)
Sets a limit on the number of times an exception is allowed to trip. After the exception trips \( n \) times, the exception will not be tested or displayed during the current OMEGAMON session, unless the user resets this parameter. The \( (m) \) value, which is informational only, indicates the number of times the exception has already tripped since the user last reset the Stop parameter. The default value for Stop is 0, which means that there is no limit to how many times the exception can be tested and displayed.

CUMULATIVE
Indicates how many times the exception has tripped during the current OMEGAMON session. Users may not alter this value.

The following is a typical XACB display:

\[
\begin{array}{llll}
\text{XACB} & :\text{xcsa} & \text{DISPLAY Parameters:} & \text{THRESHOLD Parameters:} & \text{XLF Parameters:} \\
+ & \text{State=ON} & \text{Threshold=85} & \text{Auto=ON} & \text{Repeat=YES} \\
+ & \text{Group=SP} & \text{Display=Red} & \text{Log=BOTH} & \text{Persist=25} \\
+ & \text{Bell=YES} & \text{Attribute=NONE} & \text{Limit=0} & \text{SS=SETACODE} \\
+ & \text{BOX Parameters:} & \text{CYCLE Parameters:} & \\
+ & \text{Boxchar=+} & \text{ExNcyc=0} & \\
+ & \text{Boxclr=Clr2} & \text{Stop=0 (7)} & \\
+ & \text{Boxattr=BLINK} & \text{Cumulative=5} & \\
\end{array}
\]

\[
\begin{array}{llll}
\text{XACB} & :\text{nvse} & \text{DISPLAY Parameters:} & \text{THRESHOLD Parameters:} & \text{XLF Parameters:} \\
+ & \text{State=ON} & \text{Threshold=500} & \text{NOT ELIGIBLE FOR XLF} & \\
+ & \text{Group=CT} & \text{Display=Yellow} & \\
+ & \text{Bell=NO} & \text{Attribute=NONE} & \\
+ & \text{BOX Parameters:} & \text{CYCLE Parameters:} & \\
+ & \text{Boxchar=NONE} & \text{ExNcyc=3} & \\
+ & \text{Boxclr=NONE} & \text{Stop=0} & \\
+ & \text{Boxattr=NONE} & \text{Cumulative=12} & \\
\end{array}
\]
The following is a partial XACB terse mode display.

```
XACB TERSE
  : DNRS Threshold=N/A  Display=Red  State=ON   Bell=ON
  : TNRS Threshold=N/A  Display=Blue  State=TEST Bell=OFF
  : WSHI Threshold=2500 Display=Pink  State=ON   Bell=OFF
  : WSLO Threshold=300  Display=Blue  State=NDSP Bell=OFF
```

You can use the XACB command to set thresholds and attributes for over 50 exceptions:

- **ABND**

  This operational exception indicates address space ABENDING.

  ABND appears when OMEGAMON detects that a job is abending. This exception will *not* appear for every job that abends on your system. Since the ABEND process is generally very quick, it is unusual for an exception to actually catch a job in this state. When this exception trips, it usually means an address space somehow became hung within abnormal termination.

  The abend code appears in hex format as it appears in the System Diagnostic Work Area (SDWA). Bits 0 through 7 are flag bits, bits 8 through 19 are the system abend code, and bits 20 through 31 are the user abend code.

  This is an address space exception.

- **ASER**

  This hardware exception indicates more than $n$ total page dataset slot errors.

  This is the count of errors since IPL. Once this exception has tripped, it is not reset until the next IPL. You can temporarily stop the exception from tripping by setting the threshold to the number of errors indicated by the exception. Do not save the new value in your profile.

- **ASMI**

  This hardware exception indicates more than $n$ outstanding Auxiliary Storage Manager (ASM) paging I/Os. These are outstanding requests for page-ins, page-outs, and so on.

  When an address space is being swapped in or out of memory, a large number of I/O requests can be dumped into the queue at the same time; this may cause the ASM queue to spike for a brief period before the requests are serviced. As a result, the ASMI exception may occasionally warn of a large number of waiting requests. You can ignore this as long as the queue is not extremely large or does not last for a long time.

- **DNRS**

  This hardware exception indicates device not responding.

  The DNRS exception produces a message if an active I/O issued to any DASD allocated to MVS takes longer than one OMEGAMON cycle to complete (default is five seconds).

  The delay can be due, for example, to a head-of-string contention, hardware errors, or to a device that has dropped ready. As long as this I/O fails to complete, the message appears and device response time increases. When the I/O finally completes, the message disappears.
DRDY

This hardware exception indicates DASD dropped ready.

A DASD device that has dropped ready can halt all batch, online systems, TSO, and even the entire operating system in the case of a JES2 or PLPA page dataset.

Some standard responses to a dropped-ready device are:

- Vary the device online if the master console can be accessed.
- Pop (pull out and replace) the address plug on a 3330. For 3350s and 3375s, press the Attention key. No external controls are provided on the 3380. Although popping the plug usually works, it can present a problem with some disks (for example, JES2 checkpoint volume).

This exception does not appear if the device is simply processing a mount, or if there are no I/O requests pending against it.

DYPR

This hardware exception indicates 3380-type devices not using Dynamic Path Reconnect (XA).

The POPT command can set the lower and upper bound of a range of device numbers to be excluded from DYPR exception processing. For further information, see POPT.

Note: If you run MVS as a guest under VM, this exception always appears, so it is best to turn it off.

ELAP

This operational exception indicates address space elapsed time is greater than $n$ seconds.

This is an address space exception.

ELAP is not applicable to STC address spaces.

FXFR

This operational exception indicates address space using more than $n$ fixed frames.

This is an address space exception.

MAXU

This operational exception indicates more than $nn\%$ of ASVT slots in use and unusable.

The MAXU exception warns when the percentage of in-use and unusable slots exceeds the threshold.

The ASVT minor of SYS indicates the status of all ASVT slots.

NVSC

This operational exception indicates more than $n$ non-VIO slots in use.

This is an address space exception.
PAER
This hardware exception indicates more than \( n \) errors on a page dataset.
The PAER exception produces a warning when the number of local slot errors on any page dataset exceeds the threshold.
Individual page dataset errors are accumulated by the Auxiliary Storage Manager (ASM) for all page datasets.

PAIO
This hardware exception indicates paging I/O request more than \( nnn \) milliseconds old.
It is not unusual for paging I/O to be occasionally degraded, but if it happens frequently, you should investigate the paging volumes involved.

PAOD
This hardware exception indicates paging volume has \( n \) open DCBs.
The PAOD exception warns when a paging volume has open datasets (DCBs). It also reports the volser and unit address of the device where the page dataset resides.
The maximum threshold value of \( nnn \) is 127 for MVS/XA and MVS/ESA. This value is a restriction of the operating systems, not of OMEGAMON.

PATM
This hardware exception indicates average page I/O time more than \( nnn \) milliseconds.
The PATM exception produces a warning when the service burst size in milliseconds for any page dataset exceeds the threshold.
This value is a reflection of how long it takes on the average to read or write a page to the page dataset. Although this value relates to measures such as the MilliSeconds Per Page (MSPP) and the device service time, it is not directly comparable to any of them; it is a somewhat artificial value that the Auxiliary Storage Manager (ASM) uses internally.

PDNO
This hardware exception indicates page dataset not operational.

PERA
This operational exception indicates Program Event Recording is active for specific address spaces.

PERS
This operational exception indicates Program Event Recording is active for all address spaces on the system.
PSCU
This operational exception indicates more than \( nn \)% of step CPU limit used.
The PSCU exception warns when any address space uses up more than \( nn \)% of the CPU time
allowed in the current job step (where \( nn \) is the threshold for this address space).
If a batch job, for example, exceeds its threshold of CPU time, it could be in imminent danger
of terminating with a system 322 abend.
This is an address space exception.

SDNO
This hardware exception indicates swap dataset not operational.

SLOG
This operational exception indicates SYSLOG not recording.

SLOT
This operational exception indicates less than \( n \) slots available.
The SLOT exception warns when the total number of available ASM (Auxiliary Storage
Manager) slots falls below the threshold.
This means that you need to either define more page datasets, or cut back on the number of
active address spaces.

SSRT
This hardware exception indicates I/O time for swap dataset more than \( nnn \) milliseconds.

\[ I/O \text{ SERVICE TIME} = \text{ttt MS ON SWAP DS dddddddd (vvvvv/cuu)} \]

\( \text{ttt} \) The I/O time in milliseconds.
\( \text{ddddddd} \) The name of the swap dataset.
\( \text{vvvvv} \) The volume serial identification of the device the swap dataset is on.
\( \text{cuu} \) The address of the device on which the swap dataset is located.

RMF must be active for SSRT to work.

SWER
This hardware exception indicates more than \( n \) errors on a swap dataset.
The SWER exception warns when the number of slot errors on any swap dataset exceeds the
threshold.
Individual swap dataset errors are accumulated by the Auxiliary Storage Manager (ASM) for
all swap datasets.
SWPC
This System Resource Manager exception indicates address space has swapped more than \( n \) times.
A job’s swap count includes both physical and logical swaps.
This is an address space exception.

TNRS
This operational exception indicates tape not responding.
The TNRS exception warns if an I/O issued to any tape device allocated to an MVS address space takes longer than 1 OMEGAMON cycle to complete (default five seconds).
As long as this I/O fails to complete, the message appears and the tape response time increases. When the I/O finally completes, the message disappears.
TNRS also reports a problem if MVS tries to issue an I/O to a device that has dropped ready.

TPWT
This operational exception reports on tape mount waits.

TRDY
This hardware exception indicates tape device dropped ready.
If any I/O was in progress on this device at the time of failure, the TNRS exception warns an additional warning.

TSOR
This operational exception indicates excessive TSO response time.
Since some transactions require more time to execute than others, address spaces are assigned to performance groups based on their expected TSO response time.
Rather than setting one response time threshold for all address spaces, OMEGAMON allows you to define TSO response time thresholds on a period basis. For example:

<table>
<thead>
<tr>
<th>Period</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3 seconds</td>
</tr>
<tr>
<td>2</td>
<td>15 seconds</td>
</tr>
<tr>
<td>3</td>
<td>60 seconds</td>
</tr>
<tr>
<td>4</td>
<td>90 seconds</td>
</tr>
</tbody>
</table>

If a TSO address space is in a transaction in a period longer than its response-time threshold, the TSOR exception produces a warning message that indicates the time in transaction, the time over the threshold, and the period in which the TSO user was running.
The TSR command defines the defaults for how long a TSO transaction can remain in a period before it becomes an exception.
The TSR command defines a threshold in seconds or in milliseconds.
This is an address space exception.
- **VISC**

  This operational exception indicates more than \( n \) VIO slots in use.

  This is an address space exception.

- **VTOC**

  This operational exception warns when the system switches an indexed VTOC to an OS VTOC.

  The VTOC exception displays the unit address and volser for all packs that had indexed VTOCs when OMEGAMON was initialized, but that no longer appear to have indexed VTOCs. The exception appears until the volume is taken offline, or the OS VTOC is switched back to an indexed VTOC.

  This command requires the Common VTOC Access Facility (CVAF).

  **Note:** This exception does not check either offline volumes or volumes for which the CVAF cannot determine whether they contain an indexed VTOC.

- **WAIT**

  This operational exception indicates address space wait time longer than \( n \) seconds.

  The WAIT exception warns when any address space waits longer than the threshold defined by the installation.

  A WAIT is incurred when no TCB time is used, even if SRB time is used. After determining that the address space is indeed hung up, the WAIT exception tries to discover why the address space is waiting. Only address spaces with active transactions are examined; any idle initiators or TSO users waiting on terminal input are ignored.

  This is an address space exception.

  With the WAIT exception, the words Wait or Swap appear, depending upon whether the address space is resident in virtual memory (swapped in).

  The time the address space is waiting or swapped appears as:

  - **59 Sec** for 59 seconds
  - **1:01 Mn** for 61 seconds (1 minute, 1 second)
  - **1:01 Hr** for 61 minutes (1 hour, 1 minute)
  - **1:01 Dy** for 25 hours (1 day, 1 hour)

  After it establishes that a job has been waiting unusually long, OMEGAMON then analyzes why the address space is waiting, as follows.
**Swap Reasons**

When an address space is not currently in real memory, one of the swap reasons below appears.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPC-Wt</td>
<td>APPC wait swap (MVS/SP 4.2)</td>
</tr>
<tr>
<td>Aux-Strg</td>
<td>Auxiliary storage swap</td>
</tr>
<tr>
<td>Cent-Str</td>
<td>Central storage (MVS/SP 4.2)</td>
</tr>
<tr>
<td>Det-Wait</td>
<td>Detected wait swap</td>
</tr>
<tr>
<td>Enq-Xchg</td>
<td>Enqueue exchange swap</td>
</tr>
<tr>
<td>Exchange</td>
<td>Exchange on recommendation</td>
</tr>
<tr>
<td>Long-Wat</td>
<td>Long wait swap</td>
</tr>
<tr>
<td>Real-Str</td>
<td>Real storage swap</td>
</tr>
<tr>
<td>Request</td>
<td>Request swap</td>
</tr>
<tr>
<td>Sys-Page</td>
<td>System paging swap (MVS/SP 4.2)</td>
</tr>
<tr>
<td>Term-In</td>
<td>Input terminal wait swap</td>
</tr>
<tr>
<td>Term-Out</td>
<td>Output terminal wait swap</td>
</tr>
<tr>
<td>Too-Long</td>
<td>Out too long (MVS/SP 4.2)</td>
</tr>
<tr>
<td>Transwap</td>
<td>Transition swap</td>
</tr>
<tr>
<td>Unilatrl</td>
<td>Unilateral swap</td>
</tr>
</tbody>
</table>

Exchange and unilateral swaps are also flagged as Swapped by the SRM; this is because these swap reasons are due to an SRM decision to adjust the system multiprogramming level. For a detailed description of these swap types, refer to the IBM *MVS Initialization and Tuning Guide*.

**Enqueue Waits**

When an address space tries to enqueue a resource that is already owned by another user, an enqueue conflict occurs and the requester must wait. Resources are defined by a 1- to 8-character major name and a variable-length minor name. For example, when the system enqueues a dataset, it always uses SYSDSN for the major name, and the dataset name itself for the minor name.

1. **Datasets Held by aaaaaaaa**
   
   GRS SYSNAME: ssssssss
   
   Most enqueue waits are for dataset enqueues. The second line, which displays the GRS (GRS only exists for SP 1.3 and above) System ID of the current resource owner only appears if the owner is on a different system from the one waiting.

2. **Waiting on Job: aaaaaaaa (Exc)**
   
   EXC ENQ: pppppppp qqqqqqqqqqqqqqqqqqqqqqqqqqqqq
   
   For any enqueue wait other than for a dataset, this form of the exception message displays both the major (pppppppp) and minor (qqqq...) names of the resource.
3. Waiting in Allocation for: aaaaaaaa
Waiting in allocation is a special type of enqueue wait. When a job is in the middle of device allocation, it must acquire the SYSIEFSD/Q4 enqueue to serialize access to the allocation process. If another user is already in the middle of allocation, then other jobs must wait.

4. Waiting in Allocation
Waiting on Device Swap for: aaaaaaaa
Spool Full! Current User: aaaaaaaa

If the job is the owner of the SYSIEFSD/Q4 enqueue, these messages may appear because other jobs are waiting for it. This condition usually results from an unanswered REPLY DEVICE, WAIT, OR CANCEL message on the MVS operator’s console.

**Device Waits**
It is very common for an address space to be delayed while waiting for I/O to some device to complete. The following are possible device wait reasons:

- DASD not ready
- Control unit busy
- Channel busy
- CHN/DEV end pending
- Device busy
- Mass Storage System (MSS) staging
- DASD reserve
- Tape rewinding

**Miscellaneous Waits**
Following are examples of various miscellaneous wait reasons that may appear.

- Cross Memory Post SRB Pending
- Swapping In
- Job Select Delayed: No Pageable Frames
- Job Select Delayed: ASM Slot Shortage
- DPrtty = 0 Sequence # = nn
- Local Lock Held: Dispatchable
- Local Lock Held: Non-Dispatchable
- Local lock held: CPU n
- n Suspended SRB(s) Waiting for Dispatch
- Waiting for Paging
WAIT (Continued)

Unresolved Waits
In some cases, it is impossible for OMEGAMON to discover the actual wait reason. This can be because the job is in an unanalyzable MVS state, or simply because the job has gone into an internal wait on one of its own event control blocks (ECBs). The second reason is quite common for started tasks such as RMF, because they often put themselves to sleep until some event occurs.

This type of wait is not a real exception, because it is considered part of the normal operation of the address space. The WAIT exception still produces a warning message for these jobs, unless you assigned them to an address space threshold group with the SKIPUW=YES option specified. This option tells OMEGAMON to skip the warning message if the wait is unresolved. The ASG DIS ENTRY(nn) immediate command displays the thresholds for each address space threshold group nn.

WPFJ
Displays and sets job profile thresholds. This operational Workload Profile Facility exception warns when jobs have exceeded their profile time. This is an address space exception, which is triggered when a job with a corresponding profile record in the current PRDS exceeds the profile time.

This exception is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

WPFn
Displays and sets performance group profile thresholds for period n (1 to 9). This Workload Profile Facility operational exception is triggered when the current time for a period within a performance group exceeds the profile time. The period, n, is a number between 1 and 9 inclusive.

This exception is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

WPFP
Displays and sets performance groups profile thresholds. This operational Workload Profile Facility exception is triggered when the current time for a performance group exceeds the profile time.

This exception is not valid when the system is in goal mode running under MVS/SP 5.1 and above.

WPFS
Displays and sets started tasks profile thresholds. This operational Workload Profile Facility exception is triggered when a started task with a corresponding profile record in the current PRDS exceeds the profile time.

This exception is not valid when the system is in goal mode running under MVS/SP 5.1 and above.
- **WSHI**
  This Real Storage Manager exception indicates address space working set > n K.
  The working set size is calculated as four times the frame count of a swapped in address space (displayed by the FMCT command). If expanded storage is in use, it is four times the frame count plus the expanded storage frame count (displayed by ESFC).
  The Exception Logging Facility (XLF) can process this address space exception.

- **WSLO**
  This operational exception indicates address space working set < n K.
  The working set size is calculated as four times the frame count of a swapped in address space (displayed by the FMCT command). If expanded storage is in use, it is four times the frame count plus the expanded storage frame count (displayed by ESFC).
  This is an address space exception.

- **WTOR**
  This operational exception indicates that the number of available Write-To-Operator-with-Reply buffers is less than the specified threshold value for the WTOR exception. The default is 5.
  When no more WTOR buffers are available, address spaces that issue WTORs wait for a buffer to become available before sending another WTOR.

- **XACP**
  This hardware exception indicates average CPU utilization is greater than nn %.
  This threshold is not the happy value, but your site may choose to set it at the same value.
  The average CPU utilization value calculated by the SRM varies from 0 to 100 percent, even if there are two or more processors active; that is, the value is a utilization for the system as a whole. This value can actually be set by the SRM to 128 percent. This is a signal that, during the previous SRM interval, none of the processors ever entered the wait state, and more work (up to 28 tasks) is waiting for the CPU.
  You can display the current average CPU utilization by using the RCTA, RCPD, or RCPU minor commands of SYS.

- **XACR**
  This hardware exception indicates average CPU utilization is greater than nn %.
  The average CPU utilization value for this exception is calculated by RMF.
  You can display the RMF calculation of the current average CPU utilization by using the RCPR minor command of SYS.
XASM
This System Resource Manager exception indicates average ASM queue length > n (pre-MVS/SP 4.2). The average ASM queue length (ASMQ) is the average number of paging requests waiting for processing by the Auxiliary Storage Manager. A high ASMQ implies that the system paging rate is too high or it is taking too long to process each paging I/O request.

This threshold is not the happy value, but your site may choose to set it at the same value.
You can display the current average ASM queue length by using the RCTA or RASQ minor commands of SYS.

XCHN
This hardware exception indicates a missing channel path.
The XCHN exception warns if a channel path unexpectedly goes inoperative or is offline. The XCHN exception does not warn if the logical path to devices goes offline.
The CHNM command displays or changes a channel path mask that tells XCHN which channel paths should normally be operational.

Note: If you configure a channel path online while OMEGAMON is running, OMEGAMON adds that channel path to the channel path mask.
With XA, the CHNM command can define up to 256 CHPIDs. Therefore, XCHN can display up to 256 CHPIDs. The XCHN exception warns when channel nn is not operational, where nn is the Channel Path ID.

XCON
This hardware exception indicates less than n WTO buffers available.
If the supply of Write to Operator (WTO) buffers is depleted, the MVS master console may become locked out; this can occur if a console has been made non-rollable. The XCON exception warns when the number of available MVS console buffers falls below a certain threshold.
A shortage of console buffers is often the result of a hardware failure at a hardcopy log printer; output destined for the printer backs up, and eventually uses up all the available console buffers. In this case, the printer must be quickly varied offline before the MVS consoles themselves become locked out.
Because OMEGAMON does not use WTO/WTOR to communicate, it may continue to display messages even after other address spaces are unable to communicate to the operator via WTO.

XCPU
This hardware exception indicates a missing CPU.
The CPUM command displays or changes a CPU mask to tell XCPU which processors are expected to be online.
XCSA
This operational exception indicates Common Storage Area (CSA) utilization > nn%. The Common Storage Area (CSA) has a fixed amount of virtual memory available to it, based on the CSA parameter in the IEASYSxx member of PARMLIB (and any SQA overflow).

The threshold at which this exception message becomes critical depends on the type of workload that runs on your system. For example, IMS systems, whose workload is fairly constant, often run with a very high percentage of allocated CSA. However, if your system has a mixed workload, which grows during the day, a high percentage of allocated CSA may become a problem.

XDDR
This hardware exception indicates that a Dynamic Device Reconfiguration (DDR) swap is in progress. This event can drastically affect the performance of MVS, especially by causing erratic TSO response time.

This exception shows the from and to device numbers, which can indicate:
- direct access device number
- magnetic tape device number
- unit record device number

XDOM
This System Resource Manager exception indicates domain overload.
If the number of average ready users within a domain exceeds the current target MPL, the domain is considered to be overloaded. The XDOM exception detects this condition for a domain, and displays the overload (defined as average ready users minus target MPL) and the SRM contention index.

The contention index (or CI) is a measure of how important this domain is as compared to other domains. When the SRM must swap out an address space, it chooses a job from the domain with the lowest CI; when it swaps a user in, it selects the domain with the highest CI.

The calculation for the contention index changed in MVS/SP 4.2. It is based upon the relationship between service consumed and the service defined for the domain and uses an algorithm which plots the curves.

In MVS SP4.2, the contention index measures the amount of service consumed by a workload against the amount of service defined as available for the domain. It is used to establish the priority of domains for MPL adjustment. As the service used approaches the service defined, the contention index approaches 1. As it approaches 1, the domain becomes a more likely candidate for MPL adjustment when MPL reductions are necessary. The domain becomes a less likely candidate for MPL adjustment when MPL increases are necessary.

This exception never trips when the system is in goal mode running under MVS/SP 5.1 and above.
XDPR
This System Resource Manager exception sets average demand paging rate threshold \( > n \) pages/second (pre-MVS/SP 4.2).
This threshold is not the happy value, although you may choose to set it at the same value.
You can display the current average demand paging rate by using the RDPG minor command of SYS.

XECS
This hardware exception indicates extended CSA \( > \ nn\% \) of maximum available.

XESM
This hardware exception indicates less than \( n \) K of expanded storage is currently online.
If the current amount of expanded storage is greater than the threshold, OMEGAMON sets the threshold to the current amount of expanded storage.
A value of zero tells OMEGAMON to determine the amount of expanded storage online. When you initialize OMEGAMON, this value becomes the threshold.
OMEGAMON uses a non-zero value as an upper limit. If there is less expanded storage online than you specify with XESM, the exception trips.

XGRS
This hardware exception indicates Global Resource Serialization (GRS) ring has broken.
This exception only has significance for those installations using GRS in a multiple system environment, where various systems are exchanging resource serialization information with the GRS ring of channel-to-channel adapters.

XGTF
This operational exception indicates Generalized Trace Facility (GTF) is active.
GTF is an optional service program that records significant system events, such as supervisor calls and start I/O operations. Events of this kind can drastically affect the performance of MVS, especially by causing erratic TSO response time.

XJCA
This operational exception indicates when any job’s growth in usage is greater than \( nn\% \) of the maximum size of ECSA.

XJCB
This operational exception indicates when any job’s growth in usage is greater than \( nn\% \) of the maximum size of CSA.

XJSA
This operational exception indicates when any job’s growth in usage is greater than \( nn\% \) of the maximum size of ESQA.
XJSB
This operational exception indicates when any job’s growth in usage is greater than \( nn \% \) of the maximum size of SQA.

XMCA
This operational exception indicates Monitor Call is active on the system (XA and ESA only).

XMEM
This hardware exception warns if the amount of currently available real storage (in K) is less than the threshold.

If the current amount of real storage is greater than the threshold, OMEGAMON sets the threshold to the current amount of real storage.

For a 308x processor, the real storage available is not, as a rule, a multiple of one megabyte, because the processor takes several hundred K of real storage for its Hardware Storage Area (HSA). With XA you can display the correct amount of real storage expected to be online by using the FTOT minor command of SYS.

When you set this threshold, do not take into account the size of the HSA. During initialization, OMEGAMON automatically decreases this threshold by the size of the HSA.

XMPP
This System Resource Manager exception indicates average milliseconds per page \( n \) (pre-MVS/SP 4.2). The average milliseconds per page (MSPP) is a measure of the average time it takes for a page fault to be processed and resolved by the Auxiliary Storage Manager (ASM). Although this exception might indicate a paging problem, the number can be misleading, particularly if your system is swapping to page datasets or if the page-fault rate is low.

This threshold is not the happy value, although your installation may choose to set it at the same value.

To display the current average milliseconds per page, use the RPDD or RPDL minor commands of SYS.

XMTA
This operational exception indicates a missing address space. In every MVS system some address spaces are considered critical and must be active at all times, such as JES2 (or JES3), VTAM, RMF, CICS, and IMS. The XMTA exception warns if any of these critical address spaces disappears from the system, provided they have been identified as critical using the MTA command.
You can set the exception for each critical address space to one of the following states:

- **ON** Warn when this task is missing.
- **OFF** Do not warn when this task is missing.
- **AUTO** Warn when this task is missing only if it has been active since IPL, but is no longer.

You can use the MTA command to display and modify the missing critical task table interactively. If you issue the MTA command with an operand of 0 (MTA 0), OMEGAMON displays the entire missing address space table; a non-zero value changes the nth entry within the table by typing over the display.

- **XOLT**
  This operational exception indicates On Line Test Executive Program (OLTEP) is active. OLTEP is a facility that schedules and controls activities on the On Line Test System (OLTS), and provides communications with the operator.
  If OLTEP is active, it can drastically affect the performance of MVS subsystems such as TSO by causing, for example, erratic TSO response time.

- **XPRT**
  This System Resource Manager exception indicates the average total page fault rate threshold \( n \).
  This threshold is not the happy value, although your installation may choose to set it at the same value.
  To display the current average total page fault rate, use the RPAG minor command of SYS.

- **XREP**
  This operational exception indicates that the number of outstanding MVS operator replies is greater than the threshold, \( n \).
  Some installations expect to have a certain number of WTOR messages on the consoles at all times, because certain subsystems (such as IMS) use this as a mechanism to accept subsystem commands. Each installation, therefore, normally has a different number of outstanding WTORs, dictating a different threshold for XREP.

- **XRMF**
  This operational exception indicates RMF Monitor I not active.
  The XRMF exception indicates that the RMF address space is active, but the Monitor I subtask (ZZ) is not. It only applies to installations with RMF.

- **XSCA**
  This operational exception indicates the system’s growth in usage is greater than \( nn\% \) of the maximum size of ECSA.

- **XSCB**
  This operational exception indicates the system’s growth in usage is greater than \( nn\% \) of the maximum size of CSA.
- **XSFR**
  This operational exception indicates when expanded storage frames in use by an address space is greater than \( n \) (requires XA).
- **XSMA**
  This operational exception indicates expanded storage migration age is less than \( n \) seconds (requires XA). Since a low value for the migration age indicates contention for this resource, \( n \) is an upper limit, and the exception trips when the migration age is less than or equal to \( n \) seconds.
- **XSMF**
  This operational exception indicates System Management Facilities (SMF) problems.
  Most installations use SMF for accounting and performance reporting purposes. The XSMF exception warns of problems with SMF which have made it unable to continue recording data. The most common of these is when all SMF datasets are allowed to fill up.
- **XSMR**
  This operational exception indicates expanded storage page migration rate exceeds \( n \) pages per second (XA).
- **XSPM**
  This Real Storage Manager exception indicates total expanded storage page movement is greater than \( n \) pages per second.
- **XSQA**
  This operational exception indicates SQA and/or ESQA overflows more than \( n \) K into CSA/ECSA.
  Use SYS minor commands SQA, CSA, ESQA, and ECSA to investigate the XSQA exception. These commands show the exact amounts of SQA overflow into CSA and ESQA overflow into ECSA, and the total size of each.
- **XSRM**
  This operational exception indicates SRM MPL adjustment analysis.
  This exception never trips when the system is in goal mode running under MVS/SP 5.1 and above.
- **XSSA**
  This operational exception indicates the system’s growth in usage is greater than \( nn \)\% of the maximum size of ESQA.
- **XSSB**
  This operational exception indicates the system’s growth in usage is greater than \( nn \)\% of the maximum size of SQA.
- **XUCA**
  This operational exception indicates when any job’s usage is greater than \( nn \)\% of the maximum size of ECSA.
XUCB
This operational exception indicates when any job’s usage is greater than nn% of the maximum size of CSA.

XUIC
This hardware exception indicates average unreferenced interval count < n.

XUSA
This operational exception indicates when any job’s usage is greater than nn% of the maximum size of ESQA.

XUSB
This operational exception indicates when any job’s usage is greater than nn% of the maximum size of SQA.

Related Information: Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XAS, XGRP, XGSW, XSUM, XTRP, and XTXT

XAS
Type: OMEGAMON Immediate command
Description: Invokes exception analysis for address space exceptions. XAS executes only the exception processors that analyze at the address space level, not those that analyze at the system level. For system level exception analysis, see the EXSY command. For an explanation of individual exceptions, see the bulleted list at the end of the XACB command.

Related Information: Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XGRP, XGSW, XSUM, XTRP, and XTXT

XCTnnnn
Type: OMEGAMON Minor command
Description: Shows (counts) the distribution of wait reasons across performance groups being monitored by DEXAN.

If nnnn is omitted, all performance groups are shown; if nnnn is entered, performance groups below nnnn are omitted from the display. For example:

<table>
<thead>
<tr>
<th>XCT</th>
<th>CPU</th>
<th>ECB</th>
<th>DET</th>
<th>TIN</th>
<th>LON</th>
<th>140</th>
<th>736</th>
<th>A9A</th>
<th>CPW</th>
<th>Q9A9A</th>
<th>157</th>
<th>Q4A3A</th>
<th>4A3</th>
<th>137</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ <em>SYSTEM</em></td>
<td>----</td>
<td>13K</td>
<td>13K</td>
<td>13K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ REG BAT</td>
<td>----</td>
<td>53K</td>
<td>1449</td>
<td>485</td>
<td>28</td>
<td>61</td>
<td>411</td>
<td>339</td>
<td>236</td>
<td>199</td>
<td>199</td>
<td>186</td>
<td>185</td>
<td></td>
</tr>
<tr>
<td>+ T S O</td>
<td>----</td>
<td>31K</td>
<td>15K</td>
<td>10K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ PERF 8</td>
<td>----</td>
<td>39K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ PERF 10</td>
<td>----</td>
<td>12K</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>412</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MISC</strong></td>
<td>----</td>
<td>55K</td>
<td>6493</td>
<td>2K</td>
<td>73</td>
<td>82</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No counts appear for CPU because using CPU is determined by an alternate method.

The MISC row contains counts of the remainder of performance groups other than those DEXAN is monitoring individually.
DEXAN wait reasons fall into five major categories:

- **Using CPU**
- **Swap reason waits** (for more details, see the IBM *OS/VS2 MVS RMF Reference and User’s Guide*)
- **Miscellaneous waits**
- **Device waits**
- **Enqueues**

(The CENQ command controls enqueue analysis. By default, the enqueue analysis is turned off to conserve CPU resources, which may amount to as much as 5%. When it is turned off, enqueue waits are attributed to ECB waits. Thus, the ECB percentages increase. Using the CENQnn format you can reduce the overhead of enqueue analysis and still capture data. Note that the number of cycles required for a significant count is also increased (for example, 40 samples take 200 cycles with CENQ05). The DEXAN counts are also adjusted to account for the delayed sampling.)

These coded wait reason may appear on the display, and are described as follows:

**aaaa**

Disk or tape volser **aaaa** (where **aaaa** is the address of the device) is ACTIVE, meaning that an I/O is in progress to the device (pre-MVS/SP 5.1). When OMEGAMON II for MVS is running under MVS/SP 5.1 and above, **aaaa** is the address of the device.

**APS**

APPC-Wt (MVS/SP 4.2 and above). Advanced Program-to-Program Communication (APPC) enables applications to use SNA LU6.2 to communicate between transaction programs (TPs) running in an SNA environment, either on the same system or on different systems. APPC transaction programs can use MVS services, such as dataspaces, in their conversations.

**AUX**

Aux-Strg.

**BKP (HSM Backup Dataset)**

The address space is waiting for HSM to execute a dataset backup request. (This reason is included only if OMEGAMON is APF authorized.)

**CAN (JES Job Cancel)**

The address space has issued a cancel request to JES2.

**CIL (HSM Read JES3 C/I)**

The address space is waiting for HSM to execute a C/I locate request. (This reason is included only if OMEGAMON is APF authorized.)

**COM (Common Page-in Wait)**

The address space is waiting for a PLPA or Common page-in.

**CPW (Waiting for CPU)**

The address space is waiting on the active CPU dispatching queue. High percentages here may mean the address space is low priority, or perhaps a shortage of CPU cycles.

**CSS**

Cent-Str (MVS/SP 4.2 and above).

**DEL (JES Delete Request)**

The address space has issued a job delete request to JES2.

**DET**

Det-Wait.

**DLD (HSM Delete Dataset)**
The address space is waiting for HSM to delete a dataset. (This reason is included only if OMEGAMON is APF authorized.)

**DMP (Disk Mount Pending)**

The address space is waiting for a disk to be mounted by the operator.

**DSN**

SYSDSN enqueue.

**ECB (ECB Wait)**

The address space has issued a voluntary wait. Examples are an IMS message region waiting for work, a CICS region waiting for work, or OMEGAMON waiting between screen refreshes. High percentages of ECB waits may indicate a program error or normal voluntary waiting.

**ECS (ECB Wait with STIMER)**

The address space has issued a voluntary wait. Examples are an IMS message region waiting for work, a CICS region waiting for work, or OMEGAMON waiting between screen refreshes. A STIMER is outstanding in the address space along with the voluntary.

**EEX**

Enq-Xchg.

**EXC**

Exchange.

**HLS (HSM TSO HLST)**

The address space is waiting for HSM to execute a TSO HLST command.

**IEA**

SYSIEA01 enqueue.

**IEF**

SYSIEFSD enqueue.

**IEW**

SYSIEWLP enqueue.

**IG1**

SYSIGGV1 enqueue.

**IG2**

SYSIGGV2 enqueue.

**IKJ**

SYSIKJBC enqueue.

**JST (JES Status Request)**

The address space has issued a job status request to JES2.

**LCK (Waiting for MVS Lock)**

The address space is waiting to acquire a local or global MVS lock.

**LON**

Long-Wat.

**MIG (HSM Migrate Dataset)**

The address space is waiting for HSM to migrate a dataset. (This reason is included only if OMEGAMON is APF authorized.)

**MSS (Waiting for Staging)**

The address space is waiting for a mass storage volume to be staged.

**OLS**

Too-Long (MVS/SP 4.2 and above).

**PAG (Private Page-In Wait)**

The address space is waiting for a page-in operation.

**PSO (JES PROCESS SYSOUT)**

The address space issued a process SYSOUT request to JES2.

**Qaaaa**

Disk or tape volser aaaa (where aaaa is the address of the device) is ACTIVE, meaning that an I/O is queued waiting for the device to become available by this address space (pre-MVS/SP 5.1). When OMEGAMON II for MVS is running under MVS/SP 5.1 and above, aaaa is the address of the device.
RCL (HSM Recall Dataset)
The address space is waiting for HSM to recall a dataset. (This reason is included only if OMEGAMON is APF authorized.)

RCR (HSM Read Control Dataset)
The address space is waiting for HSM to read a control dataset record. (This reason is included only if OMEGAMON is APF authorized.)

RCV (HSM Recover Dataset)
The address space is waiting for HSM to recover a backup dataset. (This reason is included only if OMEGAMON is APF authorized.)

REQ
Request.

RDY (SRM Delay (MPL))
The address space is swapped out and is ready to be swapped back in, but the SRM has not yet permitted the swap-in. This can occur when a domain is at the target MPL and the SRM has to either increase the target or swap out another address space in the domain. When SRM has scheduled a swap-in via ASM, the work shows up in SWAP PAGE-IN WAIT or in SWI state. (For definitions of these terms, see the IBM OS/VS2 MVS Initialization and Tuning Guide.)

RQE (JES2 Requeue Request)
The address space has issued a job requeue request to JES2.

RST
Real-Str.

RTO (SRM Delay (RTO))
SRM delayed the TSO transaction due to a RTO specification in the IPS.

*SMF
SYSSMF01 enqueue.

SPS
Sys-Page (MVS/SP 4.2 and above).

STI (STIMER Wait)
The address space issued a STIMER and is voluntarily waiting for it to end. This is typically not considered degradation because it is a voluntary wait.

SWI (Swap Page-in Wait)
This is an ASM condition. The address space has been given to the ASM queue and is waiting for MVS to swap it in to storage. An excessive value for this wait could be caused by a slow I/O device or DASD contention.

*SYS
Misc SYS enqueue.

TIN
Term-In.

TMP (Tape Mount Pending)
The address space is waiting for a tape to be mounted by the operator.

TOU
Term-Out.

TSW
Transwap.

UNI
Unilatrl.

*USR
Misc USR enqueue.

*VSA
SYSSVSAM enqueue.

*VTO
SYSSVTOC enqueue.

WTO (Swapped With Outstanding WTOR)
Commands and Keywords

The address space has been swapped out due to Detected Wait, and the address space also has an outstanding WTOR. (This reason is included only if OMEGAMON is APF authorized.)

*XVA*       SYSZVARY enqueue.

**Related Information:**

Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnnn, CNTFnnn, CNTJnnn, CNTS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, M0NJnnn, NUMAnnn, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnnn, PLTFnn, PLTJnn, PLTS, POFnnnnn, POFnnnnn, RESM, RSNnnn, RSPPnnnn, STIMnn, SUSP, SYNC, THRS, and XPGnnnn

**XDEV**

**Type:** OMEGAMON Immediate command

**Description:** Displays device I/O information for disks. When the I/O Supervisor (IOS) tries to start an I/O operation against a device, MVS queues the I/O on the device’s Unit Control Block (UCB), whether the I/O hardware actually accepted the I/O or not. Therefore, inspection of the contents of the device queues indicates what I/O is currently active and what I/O did not actually start. XDEV displays the contents of the I/O queue for all devices, with each I/O request on a different line.

An R in the label field (so: RXDEV) excludes I/O for 3850 MSS virtual storage volumes. An X in the label field (XXDEV) excludes suspended channel programs from the display. In SP 3 and XA systems, suspended channel programs are frequently outstanding against page volumes. Since these are harmless and usually clutter the display, you can safely suppress them.

When you use XDEV, keep the time dimension in perspective. The screen may update every 5 seconds. However, since the I/O rate on devices can be 30 I/Os per second and 100 I/Os per second on the channel, under some conditions the OMEGAMON user can miss 150 I/Os per device, or 500 I/Os per channel every 5 seconds.

Remember that the device queue display is just a snapshot. If there are a number of outstanding I/Os against a device for a continuing period of time, a problem may result. If the order of the waiting I/Os does not change after several cycles, there is probably an I/O lockout condition. Example:

```
<table>
<thead>
<tr>
<th>XDEV</th>
<th>Unit</th>
<th>volser</th>
<th>Jobname</th>
<th>I/O</th>
<th>Drvr</th>
<th>Cyl</th>
<th>Device Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>A161</td>
<td>MVS002</td>
<td>PAYROLL</td>
<td>SSCH</td>
<td>EXCP</td>
<td>280</td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>SORT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>+</td>
<td>B180</td>
<td>PAGE01</td>
<td><em>MASTER</em></td>
<td>SSCH</td>
<td>EXCP</td>
<td>24</td>
<td>Channel Pgm Suspended</td>
</tr>
<tr>
<td>+</td>
<td>2204</td>
<td>SYS001</td>
<td>TSOA13</td>
<td>SSCH</td>
<td>Pch</td>
<td>93</td>
<td></td>
</tr>
</tbody>
</table>
```
XDEV provides the following information:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Device number</th>
</tr>
</thead>
<tbody>
<tr>
<td>volser</td>
<td>Device volser</td>
</tr>
<tr>
<td>Jobname</td>
<td>Jobname of the I/O requester</td>
</tr>
<tr>
<td>I/O</td>
<td>I/O type or Wait (usually SSCH Start Subchannel)</td>
</tr>
<tr>
<td>Drvr</td>
<td>Type of I/O-driver (EXCP, JES3, VSAM, VTAM...)</td>
</tr>
<tr>
<td>Cyl</td>
<td>Target decimal cylinder address (DASD only)</td>
</tr>
<tr>
<td>Device Status</td>
<td>Unusual device status information (such as not ready or mount pending)</td>
</tr>
</tbody>
</table>

The example shows:
- PAYROLL and SORT competing for the same device (MVS002)
- A suspended channel program against the PAGE01 page volume (XA)
- A TSO user with a currently active fetch against SYS001

**Related Information:** See Disk Information Commands “Command Groupings” on page 17.

**XDSK**

**Type:** OMEGAMON Minor command

**Description:** Displays DASD devices which exceed certain thresholds. XDSK displays devices that exceed the thresholds described in DSCnnn, DUTnnn, IOSnnn, PNDnnn, and RSPnnn.

The POPT command controls XDSK. A device can be displayed if it exceeds any of the thresholds that apply to XDSK (DUT, RSP, CON, DSC, IOS, or PND), or a device can be displayed if it exceeds the DUT threshold and one of the other thresholds. For further information, see POPT.

**Related Information:** Minor of: STAT

Other Long-Term Device Utilization minors: CCHRxx, CCOMxx, CCTCxx, CDSKxx, CGRAxx, CHNP, CONnnn, CTAPxx, CUR xx, DSCnnn, DUTnnn, EDSK cccccc, IOSnnn, LCHRxxx, LCOMxxx, LCTCxxx, LCU xxx xxx, LDSKxxx, LGRAxxx, LTAPxxx, LUR xxx, PDSK cccccc, PNDnnn, PTAP cccccc, RSPnnn, SCHRxxx, SCOMxxx, SCTCxxx, SDSKxxx, SGRAXxx, STAPxxx, and SURxxx.

**XGRP**

**Type:** OMEGAMON Immediate command

**Description:** Invokes exception analysis for the specified exception group.

**XGRPcc**
The variable cc is the ID for a group that has been defined with the GDFN command or for a Candle-supplied default group. Use GDFN to display currently defined groups. The default groups are:

- **AS**: Auxiliary Storage Manager exceptions
- **HD**: hardware exceptions
- **OP**: operations exceptions
- **RS**: Real Storage Manager exceptions
- **SR**: System Resource Manager exceptions

The exception group type codes can be supplemented or replaced by new user defined groups with the GDFN command. For an explanation of individual exceptions, see the bulleted list on the end of the XACB command.

**Related Information**: Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGSW, XSUM, XTRP, and XTXT

### XGSW

**Type**: OMEGAMON Immediate command

**Description**: Sets exception group switch settings. The group switch command allows you to set the exception state for an entire exception group. This switch overrides the individual exception setting.

If you type in XGSW with no keywords, it displays all existing groups with their current settings. Overtype the current setting for the **STATE** keyword to change the setting.

**XGSW GROUP=cc STATE=cccc**

**GROUP**

Any two unique alphanumeric characters (cc) to specify the group. Use this keyword to display only entries for a particular group.

**STATE**

Controls whether the exception is in any of these five states:

- **ON**: Invokes the exception group during the current session.
- **OFF**: Does NOT invoke the exception group during the current session.
- **TEST**: Forces a sample warning message, even if the exception condition is not presently occurring, for purposes of training or demonstration. (When a message has been displayed because of TEST mode, a T appears in column 2 of the message lines.)
  
  **Note**: The zoom function is not available for exceptions in test mode.
Commands and Keywords

**NDSP**
Exceptions in the group are ON, but the exceptions are not displayed. Instead, they can be logged to the XLFLOG or can trigger automatic screen spaces.

**NULL**
Specifies that the individual exception, rather than the group switch, is to maintain control. This is the default.

**Related Information:** Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XSUM, XTRP, andXTXT

/XLF OUT

**Type:** OMEGAMON INFO-line command

**Description:** Sends exception logging facility (XLF) data to the printer and resets the log. The exception logging facility (XLF) writes exceptions to the XLFLOG. To view or change the defaults for this file, use the OUTP major command and its minors.

.XLFOUT is the equivalent immediate command.

**Related Information:** None

/ XLFOUT

**Type:** OMEGAMON Immediate command

**Description:** Sends Exception Logging Facility (XLF) data to the printer and resets the log. XLFOUT comments itself out after it executes. See the equivalent INFO-line command, /XLF OUT, for more information.

**Related Information:** None

/XLG

**Type:** OMEGAMON Immediate command

**Description:** Displays and sets printer characteristics for the Exception Logging Facility (XLFLOG). When you enter .XLG, a series of keywords appears for setting printer characteristics. If you are changing more parameters than will fit on one line, use the OUTP command instead. The keywords for .XLG (and .REP) duplicate the minors of the OUTP major.

SYSPUT= SYSOUT class.

HOLD= Specifies whether output is to be placed in the hold queue.

COPIES= Specifies the number of copies to print.

FORMS= Specifies the form on which to print.

DEST= Destination, user ID, or both (separated by a period, colon, or slash) to receive report.

FOLD= Folds lowercase characters to uppercase.
The following keywords will also appear if their default values have been previously modified. If not, you can type in the keyword and define a new value.

**ID1=** Requests separator pages and page headers. The argument for ID1 can be:

- *OMEGAMON generates separator pages and page headers with the appropriate job name printed in block letters on the pages. This is the default.*
- **NONE** OMEGAMON does not generate page headers or separator pages.
- ccccccccc OMEGAMON generates separator pages and page headers with ccccccccc printed in block letters on the pages. ccccccccc is up to 8 user-defined characters.

**ID2=** Defines up to 16 characters on the left of the separator page.

**ID3=** Defines up to 16 characters in the center of the separator page.

**ID4=** Defines up to 16 characters on the right of the separator page.

**DDNAME=** Overrides standard OMEGAMON ddnames.

If you change any parameter other than **FOLD=**, OMEGAMON automatically spins off the XLFLOG file and creates a new one.

If **SYSOUT** is active, then **DDNAME** is inactive and vice versa. The following list shows the parameters in effect and the default settings for **SYSOUT** or **DDNAME**.

**Parameters and the Default Values for SYSOUT and DDNAME**

**SYSOUT=** A and the **DDNAME** is (inactive)

**HOLD=** NO and the **DDNAME** is (inactive)

**COPIES=** 1 and the **DDNAME** is (inactive)

**FORMS=** NONE and the **DDNAME** is (inactive)

**DEST=** NONE and the **DDNAME** is (inactive)

**DDNAME=** (inactive) and the **DDNAME** is OMXLFLOG

**FOLD=** YES and the **DDNAME** is YES

**ID1=** jobname and the **DDNAME** is jobname

**ID2=** (blank) and the **DDNAME** is (blank)

**ID3=** (blank) and the **DDNAME** is (blank)

**ID4=** (blank) and the **DDNAME** is (blank)

**Related Information:** OUTP
XMCH

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Scans tables in the MVS address space.

XMCH scans the elements of a table for a string of hex or character values. If the scan is successful, OMEGAMON displays the table element that contains the string.

Use XMCH to search MVS address spaces. Use MCHN to search the address space in which OMEGAMON resides.

XMCH scans the elements of a table in an IMS region for a string of hex or character values. If the scan is successful, OMEGAMON displays the table element that contains the string.

Use XMCH to search MVS regions. Use MCHN to search the address space in which OMEGAMON resides.

```
XMCHc targ,addr,string,olen,chain,dlen
```

**a**

A required action character in column 1.

- Changes to a comment character (>) after command executes.

- Does not change to a comment character after command executes. Use this action character to repeat the command.

**c**

The format of the output.

- **B** or **b** hex and character (default)
- **C** character only
- **X** hex only

**targ**

The target MVS address space. It can be:

- **nnnn** decimal ASID number
- **cccccccc** jobname

**addr**

The address of the first table element that OMEGAMON scans.

You can specify, modify, or pre-define an address (**addr**) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.

An anchor is the base address of an address specification. It can be:

- **absolute** The hexadecimal address.
- **symbolic** Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:
Commands and Keywords

**offset**
A plus sign (+) or minus sign (-), followed by a hexadecimal number.
This modifier specifies a location at a known offset (positive or negative) from the anchor address.

**indirect**
Use a question mark (?) as the symbol for 31-bit addressing.
Use a percent sign (%) as the symbol for 24-bit addressing.
This modifier indicates that the location pointed to is itself an address.

**string**
The hex string OMEGAMON uses for the scan. If you enclose it in single quotes, OMEGAMON assumes it is a character string.

**Note:** OMEGAMON interprets two single quotes (‘ ’) within a character string as a single quote (‘ ’).

**olen**
The offset (in hex bytes) to the string in the table element; the comparison starts at this point. You may precede olen with a plus sign (+) or minus sign (-).

**chain**
The offset (in hex bytes) to the chain pointer (the location in the table element that contains the address of the next table element). You may precede chain with a plus sign (+) or minus sign (-).

**dlen**
The number of bytes (up to eight hex digits) that OMEGAMON displays if the scan is successful. The display starts at the beginning of the table element. The default is 16 (X’10’) bytes.

Make sure that addr is the starting point of a table element. The address at addr+chain points to the next table element. The scan ends when the value at addr+chain is one of the following:
- 0
- -1
- addr (the table is a ring)

The next screen display shows a typical XMCH command.

```
-XMCH USER14,AAB6C8,D6C30199,8,4
```

In this example, XMCH scans a table in the target MVS address space that starts at location AAB6C8 and looks for the string D6C30199 that begins at the eighth byte of the table element. The address of the next table element is at offset 4. By default, this command displays 16 bytes of the table element in hex and character format.

The following output appears if the scan is successful.

```
>XMCH USER14,AAB6C8,D6C30199,8,4
>Storage at 007DA000 in USER14 ASID=21:
  > 0000 E2E2C3E3 00000000 D6C30199 00000000 *SSCT OC r *
```

**Related Information:** Other Storage Scan commands: MCHN, MSCN, and XMSC
**XMLS**

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Displays storage from MVS address spaces.

*aXMLSc targ,addr,dlen*

**a**  
A required action character in column 1.

- Changes to a comment character (>) after command executes.

< Does not change to a comment character after command executes. Use this action character to repeat the command.

**c**  
The format of the output.

- **B or b**  
  hex and character (default)

- **C**  
  character only

- **X**  
  hex only

**targ**  
The target MVS address space. It can be:

- **nnnn**  
  decimal ASID number

- **cccccccc**  
  jobname

**addr**  
The first address of storage that OMEGAMON displays.

You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.

An anchor is the base address of an address specification. It can be:

- **absolute**  
  The hexadecimal address.

- **symbolic**  
  Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

- **offset**  
  A plus sign (+) or minus sign (-), followed by a hexadecimal number.
  This modifier specifies a location at a known offset (positive or negative) from the anchor address.

- **indirect**  
  Use a question mark (?) as the symbol for 31-bit addressing. Use a percent sign (%) as the symbol for 24-bit addressing.
  This modifier indicates that the location pointed to is itself an address.
The following figures show uses of the XMLS command.
In the following screen, XMLS displays 32 (X' 20') bytes from address space 21 (starting at address 1EB0) in character format.

```
>XMLSC 21,1EB0,20
>storage at 00001EB0 in CICSTEST ASID=21:
> 0000 *ABCDEFGH IJKLMNOP QRSTUVWX Z0123456 *
```

In the next screen, XMLS displays 16 (X' 10') bytes from the target MVS address space specified by the jobname USER14, starting at 1EB0 in both hex and character formats.

```
>XMLS USER14,1EB0,10
>storage at 00001EB0 in USER14 ASID=21:
> 0000 C1C2C3C4 C5C6C7C8 C9D1D2D3 D4D5D6D7 *ABCDEFGHIJKLMNOP*
```

In the next screen, XMLS displays 16 (X' 10') bytes from address space 21, starting at FF32D6 in hex and character format. The less-than symbol (<) prevents OMEGAMON from commenting out the command.

```
<XMLSB 21,FF32C1+15,10
```

Typical output for the XMLS command with the less-than symbol (<) is shown here.

```
<XMLSB 21,FF32C1+15,10
+storage at 00FF32D6 in &XMLS. ASID=21:
+ 0000 4AA800F7 D3700000 00000000 000000F8 *y..7L........8*
```

**Related Information:** Other Storage Display command: MLST

**XMSC**

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Scans storage in the MVS address space for a string of data and displays the location.

XMSC scans MVS address space for a string of hex or character values. If the scan is successful, OMEGAMON displays the string.

```
aXMSCc targ,addr,string,slen,dlen
```
**a**

A required action character in column 1.

- Changes to a comment character (>) after the command executes.

< Does not change to a comment character after the command executes. Use this action character to repeat the command.

**c**

The format of the output.

**B or b**

hex and character (default)

**C**

character only

**X**

hex only

**targ**

The target MVS address space. It can be:

**nnnn**

decimal ASID number

**cccccccc**

jobname

**addr**

The start address of the scan.

You can specify, modify, or pre-define an address (addr) for commands that display or modify storage or data-only spaces (ESA). An address consists of an anchor, optional modifiers, and an optional pre-defined name.

An anchor is the base address of an address specification. It can be:

**absolute**

The hexadecimal address.

**symbolic**

Up to eight alphanumeric characters, including @, #, and $.

You can supply one or more modifiers to change the location that the anchor points to. A modifier can be:

**offset**

A plus sign (+) or minus sign (-), followed by a hexadecimal number.

This modifier specifies a location at a known offset (positive or negative) from the anchor address.

**indirect**

Use a question mark (?) as the symbol for 31-bit addressing.

Use a percent sign (%) as the symbol for 24-bit addressing.

This modifier indicates that the location pointed to is itself an address.
In the next screen display, XMSC scans 1000 bytes in the target MVS address space specified by the jobname USER14, starting at location 515988 for the character string WORKAREA. If the scan is successful, OMEGAMON displays 14 hex bytes in hex and character format starting at WORKAREA.

The following output appears if the scan is successful.

```
-XMSC USER14,515988,'WORKAREA',1000,14

>storage at 00515988 in USER14 ASID=21:
> 1B8 E6D6D9D2 C1D9C5C1 00000000 000C0000  *WORKAREA........*
> 1C8 000C002C                             *....*
```

**Related Information:** Other Storage Scan commands: MCHN, MSCN, and XMCH

**XMZP**

**Type:** OMEGAMON Immediate command (Authorized)

**Description:** Modifies another user’s private storage area.

```
-XMZP targ,addr,ver,rep
```

- A required action character in column 1. The hyphen changes to a comment character (>) after the command executes.

targ The target MVS address space. It can be:

```
nnnn  decimal ASID number
ccccccc  jobname
```
addr
The address of the string that OMEGAMON may modify.
You can specify, modify, or pre-define an address (addr) for commands that
display or modify storage or data-only spaces (ESA). An address consists of an
anchor, optional modifiers, and an optional pre-defined name.
An anchor is the base address of an address specification. It can be:

absolute The hexadecimal address.
symbolic Up to eight alphanumeric characters, including @, #, and $.
You can supply one or more modifiers to change the location that the anchor
points to. A modifier can be:

offset A plus sign (+) or minus sign (-), followed by a hexadecimal
number.
This modifier specifies a location at a known offset (positive or
negative) from the anchor address.
indirect Use a question mark (?) as the symbol for 31-bit addressing.
Use a percent sign (%) as the symbol for 24-bit addressing. This
modifier indicates that the location pointed to is itself an address.

ver The verify string; OMEGAMON modifies storage only if OMEGAMON finds this
string at addr. If OMEGAMON does not find the string, it displays what is actually
at addr.
rep The replacement string. If OMEGAMON finds ver at addr, rep replaces ver.
Note: The verify and replacement strings must be the same length.

In the next screen display, XMZP changes a byte at location A0160 in the master scheduler
address space.

-XMZP *MASTER*,A0160,0A,64

In the next screen display, XMZP changes a halfword at C4834 in the PRODJOB address
space from X’1854’ to X’0700’.

-XMZP PRODJOB,C4834,1854,0700

Related Information: Other Storage Modification command: MZAP

XPGnnnnn
Type: OMEGAMON Minor command
Description: Displays execution states by percentage across performance groups. To show
the percentage distribution of wait reasons across performance groups, use the XPGnnnnn
command. If \textit{n}nnn is omitted, all performance groups are shown; if \textit{n}nnn is entered, performance groups below \textit{n}nnn are omitted from the display. The \textit{n}nnn is effectively an up and down scrolling mechanism for this command. Here is an example:

<table>
<thead>
<tr>
<th>XPG</th>
<th>CPU</th>
<th>ECB</th>
<th>ECS</th>
<th>LON</th>
<th>STI</th>
<th>DET</th>
<th>PAG</th>
<th>CPW</th>
<th>04FC</th>
<th>00FC</th>
<th>050F</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>SYSTEM</em></td>
<td>7.0</td>
<td>4.9</td>
<td>1.8</td>
<td>33.3</td>
<td>3.0</td>
<td>50.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REG BATJ</td>
<td>3.1</td>
<td>.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27.3</td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>T S O</td>
<td>5.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERF 5</td>
<td>&lt;.1</td>
<td>.9</td>
<td>.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERF 10</td>
<td>.8</td>
<td>.9</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PERF 15</td>
<td>2.5</td>
<td>12.1</td>
<td>1.3</td>
<td>16.7</td>
<td>5.9</td>
<td></td>
<td></td>
<td>7.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MISC</strong></td>
<td>74.9</td>
<td>72.9</td>
<td>85.8</td>
<td>33.3</td>
<td>91.1</td>
<td>50.0</td>
<td>100.</td>
<td>78.6</td>
<td>63.6</td>
<td>75.0</td>
<td>100.</td>
</tr>
</tbody>
</table>

All columns add up to 100% except for rounding error, because the total for each wait reason is the sum for that reason over performance groups unless a non-zero operand is used. The MISC row refers to the remainder of performance groups other than those that DEXAN is monitoring individually. The CPU column is always first and shows Using CPU across performance groups.

In this example, the main source of degradation is detected-wait swapping. Mostly, TSO is affected; 51.9% of the detected-wait swap time is affecting TSO. We also see that the CPU is a major source degradation. TSO and system tasks are degraded somewhat; however, batch is suffering most. TSO response time may be sluggish, but batch turnaround is likely to be significantly slowed.

For a description of the coded wait reasons that may appear on the display, refer to the list at the end of the XCT\textit{n}nnn command.

**Related Information:** Minor of: DEX

Other DEXAN minors: ADELnn, ALST, ASEL, BEGN, BLST, BOFaa, BONaaa, CENQ, CLRnnn, CNTnnnn, CNTAnn, CNTFnn, CNTJnn, CTNS, END, FLST, FOFnnnn, FONnnnn, IPRO, J2LD, J2ST, MONJnn, NUMAann, NUMFnnn, NUMPnnn, PCTnnnn, PCTAnn, PCTFnn, PCTJnn, PCTS, PLST, PLTnnnn, PLTAnn, PLTFnn, PLTJnn, PLTS, POFnnnn, PONnnnn, RESM, RSFnnnn, RSPnnnn, STIMnn, SUSP, SYNC, THRS, and XCT\textit{n}nnn

**XQCnnn**

**Type:** OMEGAMON Immediate command

**Description:** See XQCB.

**Related Information:** None

**XQCB**

**Type:** OMEGAMON Immediate command

**Description:** Displays enqueue conflicts and RESERVEs. In a shared DASD environment, some address spaces doing I/O to a shared DASD issue what is called a RESERVE. (Not all address spaces use the enqueue–JES2 on the checkpoint dataset, for example). In such a case, XQCB also indicates any RESERVEs.
[S]XQCB[X][nn]

The optional S in column 1 limits the display of minor names to 43 bytes.

The optional argument X (so: XQCBX) excludes from the display any enqueues whose major name appears in the enqueue exclusion table, which the XQN immediate command defines.

The optional argument nn suppresses the first nn lines of output. For long displays, this option works like a scrolling feature. If you want to suppress a number of lines greater than 99, use XQCn.nn.

To see enqueues held by a specific job, use the QCB address space minor command.

The output of XQCB takes the following form:

```
XQCB  soooooooo wwww ttt mmmmmmmm nnnn... RESV xxxxyvvvvv
```

- **s**  * means user is swapped out.
- **ooooooo**  Owner of the enqueue–first user listed owns resource.
- **wwww**  Either WAIT (user is waiting) or blank (user has resource).
- **ttt**  Either SHR (shared) or EXC (exclusive).
- **mmmmmmmm**  Name of major resource. If a dot appears in any position of this field, data cannot be interpreted because MVS has unprintable data. This is not a problem with OMEGAMON.
- **nnnn...**  Minor name of resource. A plus sign (+) after the minor name indicates that it is truncated.
- **RESV**  Indicates that this conflict is a RESERVE. All characters that follow RESV relate to the reserve.
- **xxxx**  Indicates the hex address of the RESERVED device.
- **y**  Indicates UCB reserve status (or blank):
  - *  Device is reserved via RESERVE CCW
  - +  RESERVE CCW has not completed yet
  - -  RELEASE CCW has not completed yet
  - b  The device is reserved by GRS; no RESERVE CCW was issued.

- **vvvvvv**  Volser of the DASD.

In some MVS environments where there is a great deal of enqueue activity (particularly reserve enqueues), the enqueue chain may be reorganized while OMEGAMON is processing it. In this case, an error recovery message, as shown below, indicates that OMEGAMON encountered an invalid chain. It continues processing remaining commands, and retries this command on the next cycle.

```
OB0910 PROGRAM CHECK. RECOVERY SUCCESSFUL
```

Sometimes enqueue minor names contain unprintable characters (for example, when a hex address is part of the name). Certain common MVS enqueues of this type have been identified, and will be converted into a more meaningful display:
Commands and Keywords

IEZIGGV3 CAXWA=xxxxxx
SYSZTIOT JOB=cccccccc DSAB=xxxxxx
SYSVSAM CI#=xxxxxx ACB=xxxxxx STAT=c
SYSCTLG INDEX=cccccccc UNIT=xx
SYSZIGGI JOB=cccccccc
SYSZVMV UNIT=xxx
SYSZVSRL UNIT=xxx
SYSIKJBC RBA=xxxxxxxx

where c indicates an alphanumeric and x is a hex digit.

It is possible that one of the resource requests may be from another system altogether. When this happens, a second display line appears to indicate the user’s GRS system name. For example:

| XQCB | PAYROLL | EXC | SYSDSN | PAYROLL.MASTER |
| +    |         |     | GRS SYSNAME=GRSSYS01 ENQUEUE TYPE=SYSTEMS |
| +    | PAYUPD  | WAIT| EXC | SYSDSN | PAYROLL.MASTER |

Here, job PAYUPD is waiting to use dataset PAYROLL.MASTER because job PAYROLL already has it allocated from GRS system GRSSYS01.

Related Information: Other Enqueue Information command: WHO

XQN

Type: OMEGAMON Immediate command

Description: Displays or modifies the enqueue name table. The XQN command lets you define, by name, the enqueues that you want excluded from enqueue conflict analysis. Excluding some enqueue names helps to suppress extraneous lines in the XQCBX command display. The XQN command uses the multi-line input facility to make it easy for you to change displayed values. The following considerations apply to the multi-line input facility:

- You can modify any display line that begins with a colon in column 1.
- Blanking out fields has no effect; OMEGAMON redisplays the line on the next cycle.
- To change a setting, type over the displayed value and press Enter.
- OMEGAMON marks modified entries with one of the following words:
  - ADDED
  - UPDATED
  - DELETED

OMEGAMON treats commas, blanks, and parentheses in command syntax as delimiters.
If you issue the XQN command without any operands or keywords, OMEGAMON displays the first 100 entries of the enqueue name table. The following figure shows a typical enqueue name table.

```
#  Entry number in the enqueue name table.
ENQ NAME  Major name of the enqueue.
```

If you issue the XQN command with the ADD operand, you can add one or more enqueue names to the table. The syntax is as follows:

```
XQN ADD name1,name2,...namen
```

`name` Specifies the major name of an enqueue.

After you add entries to the table, OMEGAMON renumbers all entries consecutively and displays an informational message informing you that the entry numbers may have shifted. The following figure shows typical output from the XQN ADD command.

<table>
<thead>
<tr>
<th>Entry</th>
<th>ENQ NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SPFEDIT</td>
</tr>
<tr>
<td>2</td>
<td>SPFDSN</td>
</tr>
<tr>
<td>3</td>
<td>SYSDSN</td>
</tr>
<tr>
<td>4</td>
<td>SYSZVTOC</td>
</tr>
<tr>
<td>5</td>
<td>SYSZVSAM</td>
</tr>
</tbody>
</table>

There are 5 entries defined in the ENQ name table.

If you issue the XQN command with the DEL operand, you can delete one or more enqueue names from the table. The syntax is as follows:

```
XQN DEL [name1,name2,...namen]

[ENTRY(n1,n2,...nn1 : n2)]

[ALL]
```

`name` Specifies the major name of an enqueue.

ENTRY Specifies a list or range of enqueue table entries by number.

ALL Specifies all entries in the table.
After you delete entries from the table, OMEGAMON renumbers all entries consecutively and displays an informational message informing you that the entry numbers may have shifted.

The following figure shows typical output from the XQN DEL command.

```
> XQN DEL E(2,5)  
  + 2 SPFDSN * deleted *  
  + 5 SYSZVSAM * deleted *  
+ Entries numbers may have been shifted due to the ADD/DEL  
+ # ENQ NAME  
  + 1 SPFEDIT  
  + 2 SYSZVSAM  
  + 3 SYSZVTOC  
+ There are 3 entries defined in the ENQ name table.
```

**Related Information:** Other table customization commands: DMN and PGN.  
See also: XQCB.

**XSUM**

**Type:** OMEGAMON Immediate command  
**Description:** Displays a summary of exceptions and their current status.

```
XSUM GROUP=cc LIST={A|I} RESET
```

**GROUP**  
The group ID (cc) can be any of the exception groups defined with the GDFN command. Enter a 2-character group ID to summarize the exceptions of a specific group. The Candle-supplied default groups are:

- **AS**: Auxiliary Storage Manager exceptions  
- **HD**: hardware exceptions  
- **OP**: operations exceptions  
- **RS**: Real Storage Manager exceptions  
- **SR**: System Resource Manager exceptions

**LIST**  
The value can be A or I.

- **A**: Lists exceptions in alphabetical order. This is the default.  
- **I**: Lists exceptions in the order in which they are executed, as specified by the LEXC command.

**RESET**  
Resets the last and worst values back to zero. Does not reset the cumulative value.
The following figure shows an example of a partial XSUM display.

```
<table>
<thead>
<tr>
<th>Command</th>
<th>Threshold</th>
<th>Trip Value</th>
<th>Time Occurred</th>
<th>Total Trips</th>
<th>Trips Since Reset</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNRS</td>
<td></td>
<td></td>
<td>06/18 17:07:46</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>State=On</td>
<td>Last</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group=HD</td>
<td>Limit=3</td>
<td>Persist=2</td>
<td>Auto=OFF</td>
<td>Log=NO</td>
<td></td>
</tr>
<tr>
<td>DRDY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State=On</td>
<td>Last</td>
<td></td>
<td>NOT TRIPPED</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Group=HD</td>
<td>Limit=3</td>
<td>Persist=2</td>
<td>Auto=OFF</td>
<td>Log=NO</td>
<td></td>
</tr>
<tr>
<td>WSHI</td>
<td></td>
<td></td>
<td>06/18 16:09:30</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>State=Test</td>
<td>Last</td>
<td>3640X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group=RS</td>
<td>Limit=3</td>
<td>Persist=2</td>
<td>Auto=OFF</td>
<td>Log=NO</td>
<td></td>
</tr>
<tr>
<td>WSLO</td>
<td></td>
<td></td>
<td>06/18 16:09:30</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>State=Test</td>
<td>Last</td>
<td>270X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group=RS</td>
<td>Limit=3</td>
<td>Persist=2</td>
<td>Auto=OFF</td>
<td>Log=NO</td>
<td></td>
</tr>
</tbody>
</table>
```

The XSUM command displays the current settings for the exception state (State=ON/OFF/TEST), the group to which it is assigned (Group=), and XLF or ASF settings (Limit=, Persist=, Auto=, and Log=). In addition, it displays the last and worst values for the following fields.

**Threshold** The current threshold value set for this exception.

**Trip Value** The value that caused this exception to trip.

**Time Occurred** The date and time the exception last exceeded its threshold.

**Total Trips** The number of times this exception exceeded its threshold during the current session.

**Trips Since Reset** The number of times this exception exceeded its threshold since the last and worst values were reset.

**Related Information:** Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XTRP, and XTXT

**XTRP**

**Type:** OMEGAMON Immediate command

**Description:** Displays a summary of tripped exceptions for a group.
XTRP GROUP=cc LIST={A|I} RESET

XTRP with no keywords displays all of the exception groups in alphabetical order. This is the default.

GROUP The group ID (cc) can be any of the exception groups defined with the GDFN command. Enter a 2-character group ID to display the exceptions of a specific group. The Candle-supplied default groups are:

- AS Auxiliary Storage Manager exceptions
- HD hardware exceptions
- OP operations exceptions
- RS Real Storage Manager exceptions
- SR System Resource Manager exceptions

LIST The value can be A or I.

- A Lists exceptions in alphabetical order. This is the default.
- I Lists exceptions in the order in which they are executed, as specified by the LEXC command.

RESET Resets the last and worst values back to zero. Does not reset the cumulative value.

The XTRP display is the same as the XSUM display, but shows only tripped exceptions rather than all exceptions.

Related Information: Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XSUM, and XTRP

XTXT

Type: OMEGAMON Immediate command

Description: Specifies the message to display on cycles when no exceptions have tripped.

XTXT ‘yourmessage’

The variable yourmessage can be up to 60 characters of user-defined text, specifying the message to display when no exceptions have tripped. Enclose a message containing blanks or special characters in single quotation marks. If you enter XTXT alone, OMEGAMON displays the message previously defined for this condition.

Related Information: Other exception analysis commands: ASG, CHNM, CPUM, EXSY, GDFN, LEXC, MTA, TSR, XACB, XAS, XGRP, XGSW, XSUM, and XTRP
.ZAP

Type: OMEGAMON Immediate command

Description: Displays maintenance ZAPs applied.

Related Information: None

/ZOOM

Type: OMEGAMON INFO-line command

Description: Invokes navigational zoom feature using the cursor as a pointer. The zooming feature is designed to simplify the investigation of system conditions by supplying a detailed level of information at the touch of the Zoom key. /ZOOM substitutes the value above the current cursor position for a variable contained in a predefined screen space. The variable substitution allows one zooming screen space to analyze multiple items, such as devices or volume serials. It also enables quick investigation of exception conditions.

Note the following points regarding this feature.

- Candle ships OMEGAMON with the /ZOOM INFO-line command assigned to F11 so you can access the zooming screen spaces with a single key. We refer to F11 as the Zoom key.
- The menu system uses the zooming feature extensively. For example, when you are looking at an exception analysis display, you can place your cursor on an exception name and press F11. OMEGAMON zooms to a recommendation screen that gives you suggestions on actions you may want to take.

In the menu system, when there are fields on a display that respond to the Zoom key, such as exception names or device names, **Zoom F11** is shown under the INFO-line as a navigation option.

---

Note: If you want to be able to zoom to exception recommendations from command mode, you can set a command mode function key to /ZOOM @ZSM.

- You can use zooming in command mode by setting up customized investigative screen spaces and zooming on command or exception names. These screen spaces can contain one or more of the following variables:

  - **&ZOOM** Data found at the cursor location.
  - **&ZOOMC** Command or exception name field (columns 2 to 5).
  - **&ZOOMS** Originating screen space.

OMEGAMON provides some sample zooming screen spaces to help you become familiar with both the setup of a zooming screen space and the types of commands for which /ZOOM is most appropriate. To list the names of those screen spaces, use the SCRN command and
look for screen spaces named in the format \texttt{@ZOMcccc} where \texttt{cccc} is a command name. Then try zooming on those command names.

Here is an example of using the zooming feature. You can follow this example either in command mode by entering the DSKB command or in menu mode by choosing the I/O DASD option.

- Execute the major command DSKB. DSKB lists the unit addresses of disks that are currently performing I/O.

To examine one of the disks more closely, place your cursor under the volser you wish to query (in this case MVSA21) and press F11. OMEGAMON looks for a screen space starting with \texttt{@ZOM} and ending with the major command name that precedes the cursor. OMEGAMON finds the screen space \texttt{@ZOMDSKB}.

\texttt{/ZOOM} replaces the variable \texttt{&ZOOM} with the volser over the cursor. The result might look like this:

- You could now place your cursor on a different volser and press F11 again to receive the same detail on another device. A zooming screen space can display more detailed analyses of any device, volume serial number, or address space.
Valid delimiter characters for zoom values (characters that OMEGAMON recognizes as the beginning or end of the value) are the:

- **b** blank
- **+** plus sign
- **()** left and right parenthesis
- **|** vertical bar
- **'** single quote
- **<>** greater than and less than sign
- **=** equal sign
- ***** asterisk

**Related Information:** None
Commands and Keywords
Introduction

Candle Corporation is committed to producing top-quality software products and services. To assist you with making effective use of our products in your business environment, Candle is also committed to providing easy-to-use, responsive customer support.

Precision, speed, availability, predictability—these terms describe our products and Customer Support services.

Included in this Guide to Candle Customer Support is information about the following:

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- Telephone Support
- eSupport
- Description of Severity Levels
- Service-level objectives
- Recording and monitoring calls for quality purposes
- Customer Support Escalations
- Above and Beyond

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- Assigned Support Center Representative (ASCR)
- Maintenance Assessment Services (MAS)
- Multi-Services Manager (MSM)

**Customer Support Contact Information** ................................. 515
- Link to Worldwide Support Telephone and E-mail information
Base Maintenance Plan

Overview

Candle offers a comprehensive Base Maintenance Plan to ensure that you realize the greatest value possible from your Candle software investments. We have more than 200 technicians providing support worldwide, committed to being responsive and to providing expedient resolutions to support requests. Technicians are available worldwide at all times during the local business day. In the event of an after-hours or weekend emergency, our computerized call management and forwarding system will ensure that a technician responds to Severity One situations within one hour. For customers outside of North America, after-hours and weekend support is provided in English language only by Candle Customer Support technicians located in the United States.

Telephone support

Candle provides consistently reliable levels of service—thanks to our worldwide support network of dedicated experts trained for specific products and operating systems. You will always work with a professional who truly understands your problem.

We use an online interactive problem management system to log and track all customer-reported support requests. We give your support request immediate attention by routing the issue to the appropriate technical resource, regardless of geographic location.

- **Level 0 Support** is where your call to Candle Customer Support is first handled. Your support request is recorded in our problem management system, then transferred to the appropriate Level 1 support team. We provide Level 0 manual interaction with our customers because we support more than 170 products. We feel our customers would prefer personal interaction to a complex VRU or IVR selection menu.

- **Level 1 Support** is the service provided for initial support requests. Our Level 1 team offers problem determination assistance, problem analysis, problem resolutions, installation assistance, and preventative and corrective service information. They also provide product usage assistance.

- **Level 2 Support** is engaged if Level 1 cannot provide a resolution to your problem. Our Level 2 technicians are equipped to analyze and reproduce errors or to determine that an error is not reproducible. Problems that cannot be resolved by Level 2 are escalated to Candle’s Level 3 R&D support team.

- **Level 3 Support** is engaged if a problem is identified in Candle product code. At Level 3, efforts are made to provide error correction, circumvention or notification that a correction or circumvention is not available. Level 3 support provides available maintenance modifications and maintenance delivery to correct appropriate documentation or product code errors.
**eSupport**

In order to facilitate the support process, Candle also provides eSupport, an electronic full-service information and customer support facility, using the World Wide Web at www.candle.com/support/. eSupport allows you to open a new service request and update existing service requests, as well as update information in your customer profile. New and updated service requests are queued to a support technician for immediate action. And we can respond to your request electronically or by telephone—it is your choice.

ESupport also contains a continually expanding knowledge base that customers can tap into at any time for self-service access to product and maintenance information.

The Candle Web Site and eSupport can be accessed 24 hours a day, 7 days a week by using your authorized Candle user ID and password.

---

**Description of Candle severity levels**

Responses to customer-reported product issues and usage questions are prioritized within Candle according to Severity Code assignment. Customers set their own Severity Levels when contacting a support center. This ensures that we respond according to your individual business requirements.

<table>
<thead>
<tr>
<th>Severity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity 1 (Crisis)</td>
<td>A crisis affects your ability to conduct business, and no procedural workaround exists. The system or application may be down.</td>
</tr>
<tr>
<td>Severity 2 (High)</td>
<td>A high-impact problem indicates significant business effect to you. The program is usable but severely limited.</td>
</tr>
<tr>
<td>Severity 3 (Moderate)</td>
<td>A moderate-impact problem involves partial, non-critical functionality loss or a reasonable workaround to the problem. A “fix” may be provided in a future release.</td>
</tr>
<tr>
<td>Severity 4 (Low)</td>
<td>A low-impact problem is a “how-to” or an advisory question.</td>
</tr>
<tr>
<td>Severity 5 (Enhancement Request)</td>
<td>This is a request for software or documentation enhancement. Our business units review all requests for possible incorporation into a future release of the product.</td>
</tr>
</tbody>
</table>
Candle has established the following service-level objectives:

<table>
<thead>
<tr>
<th>Call Status</th>
<th>Severity 1 Goal</th>
<th>Severity 2 Goal</th>
<th>Severity 3 Goal</th>
<th>Severity 4 Goal</th>
<th>Severity 5 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Call Time to Answer</td>
<td>90% within one minute</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1 Response (Normal Business Hours)</td>
<td>90% within 5 minutes</td>
<td>90% within one hour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2 Response (Normal Business Hours)</td>
<td>Warm Transfer</td>
<td>90% within two hours</td>
<td>90% within eight hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduled follow-up (status update)</td>
<td>Hourly or as agreed</td>
<td>Daily or as agreed</td>
<td>Weekly or as agreed</td>
<td>Notification is made when an enhancement is incorporated into a generally available product.</td>
<td></td>
</tr>
</tbody>
</table>

The above information is for guideline purposes only. Candle does not guarantee or warrant the above service levels. This information is valid as of October 1999 and is subject to change without prior notice.

Recording and Monitoring Calls for Quality Purposes

Candle is committed to customer satisfaction. To ensure that our customers receive high levels of service, quality and professionalism, we'll monitor and possibly record incoming and outgoing Customer Support calls. The information gleaned from these calls will help us serve you better. If you prefer that your telephone call with Candle Customer Support in North America not be monitored or recorded, please advise the representative when you call us at **(800) 328-1811** or **(310) 535-3636**.

Customer Support Escalations

Candle Customer Support is committed to achieving high satisfaction ratings from our customers. However, we realize that you may occasionally have support issues that need to be escalated to Candle management. In those instances, we offer the following simple escalation procedure:

If you experience dissatisfaction with Candle Customer Support at any time, please escalate your concern by calling the Candle support location closest to you. Ask to speak to a Customer Support manager. During standard business hours, a Customer Support manager will be available to talk with you or will return your call. If you elect to hold for a manager, you will be connected with someone as soon as possible. If you wish a return call, please tell the Candle representative coordinating your call when you will be available. After contacting you, the Customer Support manager will develop an action plan to resolve your issue. All escalations or complaints received about support issues are logged and tracked to ensure responsiveness and closure.
Above and Beyond

What differentiates Candle’s support services from our competitors? We go the extra mile by offering the following as part of our Base Maintenance Plan:

- Unlimited multi-language defect, installation and operations support
- eSupport using the World Wide Web
- Regularly scheduled product updates and maintenance provided at no additional charge
- Over 200 specialized technicians providing expert support for your Candle products
Enhanced Support Services

Overview

Our Base Maintenance Plan provides a high level of software support in a packaged offering. However, in addition to this plan, we have additional fee-based support services to meet unique customer needs.

The following are some examples of our added-value support services:

- **Assigned Support Center Representative Services (ASCR)**
  - An assigned focal point for managing support escalation needs
  - Proactive notification of available software fixes
  - Proactive notification of product version updates
  - Weekly conference calls with your ASCR to review active problem records
  - Monthly performance reviews of Candle Customer Support service levels
  - Optional on-site visits (extra charges may apply)

- **Maintenance Assessment Service (MAS)**
  - On-site assessment services
  - Advice about product maintenance and implementation
  - Training your staff to develop efficient and focused procedures to reduce overall cost of ownership of your Candle software products
  - Analysis of your Candle product environment: versions, updates, code correction history, incident history and product configurations
  - Reviews to ensure that purchased Candle products and solutions are used effectively

- **Multi-Services Manager (MSM)**
  Multi-Services Manager provides highly valued services to customers requiring on-site full time expertise to complement their technical resources.
  - Dedicated on-site Candle resource (6 months or one year) at your site to help ensure maximum use and effectiveness of your Candle products
  - Liaison for all Candle product support activities, coordination and assistance with implementation of all product updates and maintenance releases
  - Works with your staff to understand business needs and systems requirements
  - Possesses technical and systems management skills to enhance your staff’s knowledge and expertise
  - Other projects as defined in Statement of Work for MSM services
Customer Support Contact Information

Link to Worldwide Support Telephone and E-mail information

To contact Customer Support, the current list of telephone numbers and e-mail addresses can be found on the Candle Web site, www.candle.com/support/.

Select Support Contacts from the list on the left of the page.
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