

System Automation for OS/390



Operator's Commands

Version 2 Release 1

System Automation for OS/390



Operator's Commands

Version 2 Release 1

Note!

Before using this information and the product it supports, be sure to read the general information under "Notices" on page xi.

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Department 3248
Schoenaicher Strasse 220
D-71032 Boeblingen
Federal Republic of Germany

FAX: (Germany): 07031+16-3456

FAX: (Other countries): (+49)+7031-16-3456

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About This Book

This document describes System Automation for OS/390. It provides detailed reference material you need to operate SA OS/390.

This book contains information previously published in *System Automation for OS/390 Technical Reference*. *System Automation for OS/390 Technical Reference* was restructured and split into two books: *System Automation for OS/390 Operator's Commands* and *System Automation for OS/390 Programmer's Reference*. *System Automation for OS/390 Operator's Commands* mainly addresses automation operators, *System Automation for OS/390 Programmer's Reference* accommodates the needs of automation programmers.

Throughout this publication the term processor operations PC is used as a generic term to refer to the workstation which is connected to one or more target systems and which contains the processor operations distributed feature code. The workstation may be a Micro Channel[®] Architecture (MCA) bus personal computer, a PCI bus personal computer, or an IBM-compatible ISA bus personal computer.

Likewise, the term PS/2[®] in the panels is used to refer to that workstation (PC).

Throughout this publication references to MVS[®], refer either to MVS/ESA[™], or to the MVS element of OS/390.

Who Should Use This Book

This information is primarily for system programmers and operators, but may also be useful for others, such as help desk personnel and customer engineers.

Where to Find More Information

The System Automation for OS/390 Library

The following table shows the information units in the System Automation for OS/390 library:

Table 1. System Automation for OS/390 Library

Title	Order Number
<i>System Automation for OS/390 General Information</i>	GC33-7036
<i>System Automation for OS/390 Licensed Program Specifications</i>	SC33-7037
<i>System Automation for OS/390 Planning and Installation</i>	SC33-7038
<i>System Automation for OS/390 Customizing and Programming</i>	SC33-7035
<i>System Automation for OS/390 Defining Automation Policy</i>	SC33-7039
<i>System Automation for OS/390 User's Guide</i>	SC33-7040
<i>System Automation for OS/390 Messages and Codes</i>	SC33-7041
<i>System Automation for OS/390 Operator's Commands</i>	SC33-7042
<i>System Automation for OS/390 Programmer's Reference</i>	SC33-7043
<i>System Automation for OS/390 CICS Automation Programmer's Reference and Operator's Guide</i>	SC33-7044
<i>System Automation for OS/390 IMS Automation Programmer's Reference and Operator's Guide</i>	SC33-7045
<i>System Automation for OS/390 OPC Automation Programmer's Reference and Operator's Guide</i>	SC23-7046

The System Automation for OS/390 books (except Licensed Program Specifications) are also available on CD-ROM as part of the following collection kits:

IBM Online Library OS/390 Collection (SK2T-6700)

IBM Online Library z/OS Software Products Collection (SK3T-4270)

This softcopy collection includes the IBM Library Reader, a program that enables you to view online documentation.

SA OS/390 Homepage

For the latest news on SA OS/390, visit the SA OS/390 homepage at <http://www.ibm.com/servers/eserver/zseries/software/sa>

Related Product Information

The following table shows the books in the related product libraries that you may find useful for support of the SA OS/390 base program.

Table 2. Related Products Books

Title	Order Number
<i>ISPF User's Guide</i>	SC34-4484
<i>ISPF Dialog Management Guide and Reference</i>	SC34-4266
<i>MVS/ESA MVS Configuration Program Guide and Reference</i>	GC28-1817
<i>MVS/ESA Planning: Dynamic I/O Configuration</i>	GC28-1674
<i>MVS/ESA Support for the Enterprise Systems Connection</i>	GC28-1140
<i>MVS/ESA Planning: APPC Management</i>	GC28-1110
<i>MVS/ESA Application Development Macro Reference</i>	GC28-1822
<i>MVS/ESA SP V5 System Commands</i>	GC28-1442

Table 2. Related Products Books (continued)

Title	Order Number
<i>MVS/ESA SPL Application Development Macro Reference</i>	GC28-1857
<i>OS/390 Hardware Configuration Definition: User's Guide</i>	SC28-1848
<i>OS/390 Information Roadmap</i>	GC28-1727
<i>OS/390 Information Transformation</i>	GC28-1985
<i>OS/390 Introduction and Release Guide</i>	GC28-1725
<i>OS/390 JES Commands Summary</i>	GX22-0041
<i>OS/390 Licensed Program Specifications</i>	GC28-1728
<i>OS/390 Printing Softcopy Books</i>	S544-5354
<i>OS/390 Starting Up a Sysplex</i>	GC28-1779
<i>OS/390 Up and Running!</i>	GC28-1726
<i>Planning for the 9032 Model 3 and 9033 Enterprise Systems Connection Director</i>	SA26-6100
<i>Resource Access Control Facility (RACF) Command Language Reference</i>	SC28-0733
<i>S/390 MVS Sysplex Overview – An Introduction to Data Sharing and Parallelism</i>	GC23-1208
<i>S/390 MVS Sysplex Systems Management</i>	GC23-1209
<i>S/390 Sysplex Hardware and Software Migration</i>	GC23-1210
<i>S/390 MVS Sysplex Application Migration</i>	GC23-1211
<i>S/390 Managing Your Processors</i>	GC38-0452
<i>Tivoli/Enterprise Console User's Guide Volume I</i>	GC31-8334
<i>Tivoli/Enterprise Console User's Guide Volume II</i>	GC31-8335
<i>Tivoli/Enterprise Console Event Integration Facility Guide</i>	GC31-8337
<i>Tivoli for OS/390 NetView V1R3 Administration Reference</i>	SC31-8222
<i>Tivoli for OS/390 NetView V1R3 Application Programmer's Guide</i>	SC31-8223
<i>Tivoli for OS/390 NetView V1R3 APPN Topology and Accounting Agent Guide</i>	SC31-8224
<i>Tivoli for OS/390 NetView V1R3 Automation Guide</i>	SC31-8225
<i>Tivoli for OS/390 NetView V1R3 AON Customization Guide</i>	SC31-8662
<i>Tivoli for OS/390 NetView V1R3 AON User's Guide</i>	GC31-8661
<i>Tivoli for OS/390 NetView V1R3 Bridge Implementation</i>	SC31-8238
<i>Tivoli for OS/390 NetView V1R3 Command Reference Vol. 1</i>	SC31-8227
<i>Tivoli for OS/390 NetView V1R3 Command Reference Vol. 2</i>	SC31-8227
<i>Tivoli for OS/390 NetView V1R3 Customization Guide</i>	SC31-8228
<i>Tivoli for OS/390 NetView V1R3 Customization: Using Assembler</i>	SC31-8229
<i>Tivoli for OS/390 NetView V1R3 Customization: Using Pipes</i>	SC31-8248
<i>Tivoli for OS/390 NetView V1R3 Customization: Using PL/I and C</i>	SC31-8230
<i>Tivoli for OS/390 NetView V1R3 Customization: Using REXX and the NetView Command List Language</i>	SC31-8231
<i>Tivoli for OS/390 NetView V1R3 Data Model Reference</i>	SC31-8232
<i>Tivoli for OS/390 NetView V1R3 Installation and Administration Guide</i>	SC31-8236
<i>Tivoli for OS/390 NetView V1R3 Messages and Codes</i>	SC31-8237

Table 2. Related Products Books (continued)

Title	Order Number
<i>Tivoli for OS/390 NetView V1R3 MultiSystem Manager User's Guide</i>	SC31-8607
<i>Tivoli for OS/390 NetView V1R3 NetView Graphic Monitor Facility User's Guide</i>	GC31-8234
<i>Tivoli for OS/390 NetView V1R3 NetView Management Console User's Guide</i>	GC31-8665
<i>Tivoli for OS/390 NetView V1R3 User's Guide</i>	SC31-8241
<i>Tivoli for OS/390 NetView V1R3 Planning Guide</i>	GC31-8226
<i>Tivoli for OS/390 NetView V1R3 RODM and GMFHS Programmer's Guide</i>	SC31-8233
<i>Tivoli for OS/390 NetView V1R3 Security Reference</i>	SC31-8606
<i>Tivoli for OS/390 NetView V1R3 SNA Topology Manager and APPN Accounting Manager Implementation Guide</i>	SC31-8239
<i>Tivoli Management Platform Reference Guide</i>	GC31-8324
<i>TSO/E REXX/MVS User's Guide</i>	SC28-1882
<i>TSO/E REXX/MVS Reference</i>	SC28-1883
<i>VM/XA SP GCS Command and Macro Reference</i>	SC23-0433
<i>VSE/SP Unattended Node Support</i>	SC33-6412
<i>VTAM Messages and Codes</i>	SC31-6493
<i>VTAM Network Implementation Guide</i>	SC31-6404
<i>VTAM Network Implementation Guide</i>	SC31-6434

Using LookAt to look up message explanations

LookAt is an online facility that allows you to look up explanations for z/OS messages, system abends, and some codes. Using LookAt to find information is faster than a conventional search because in most cases LookAt goes directly to the message explanation.

You can access LookAt from the Internet at:

<http://www.ibm.com/servers/eserver/zseries/zos/bkserv/lookat/lookat.html>

or from anywhere in z/OS where you can access a TSO command line (for example, TSO prompt, ISPF, z/OS UNIX System Services running OMVS).

To find a message explanation on the Internet, go to the LookAt Web site and simply enter the message identifier (for example, IAT1836 or IAT*). You can select a specific release to narrow your search. You can also download code from the *z/OS Collection*, SK3T-4269 and the LookAt Web site so you can access LookAt from a PalmPilot (Palm VIIx suggested).

To use LookAt as a TSO command, you must have LookAt installed on your host system. You can obtain the LookAt code for TSO from a disk on your *z/OS Collection*, SK3T-4269 or from the LookAt Web site. To obtain the code from the LookAt Web site, do the following:

1. Go to <http://www.ibm.com/servers/eserver/zseries/zos/bkserv/lookat/lookat.html>.
2. Click the **News** button.
3. Scroll to **Download LookAt Code for TSO and VM**.

4. Click the ftp link, which will take you to a list of operating systems. Select the appropriate operating system. Then select the appropriate release.
5. Find the **lookat.me** file and follow its detailed instructions.

To find a message explanation from a TSO command line, simply enter: **lookat message-id**. LookAt will display the message explanation for the message requested.

Note: Some messages have information in more than one book. For example, IEC192I has routing and descriptor codes listed in *z/OS MVS Routing and Descriptor Codes*. For such messages, LookAt prompts you to choose which book to open.

Accessing licensed books on the Web

OS/390 licensed documentation in PDF format is available on the Internet at the IBM Resource Link Web site at:

<http://www.ibm.com/servers/resourceLink>

Licensed books are available only to customers with a OS/390 license. Access to these books requires an IBM Resource Link Web userid and password, and a key code. With your OS/390 order you received a memo that includes this key code.

To obtain your IBM Resource Link Web userid and password log on to:

<http://www.ibm.com/servers/resourceLink>

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3. Click on **Access Profile**.
4. Click on **Request Access to Licensed books**.
5. Supply your key code where requested and click on the **Submit** button.

If you supplied the correct key code you will receive confirmation that your request is being processed. After your request is processed you will receive an e-mail confirmation.

Note: You cannot access the z/OS licensed books unless you have registered for access to them and received an e-mail confirmation informing you that your request has been processed.

To access the licensed books:

1. Log on to Resource Link using your Resource Link userid and password.
2. Click on **Library**.
3. Click on **zSeries**.
4. Click on **Software**.
5. Click on **OS/390**.
6. Access the licensed book by selecting the appropriate element.

Part 1. Introduction

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This part gives an overview of SA OS/390 commands—how to enter them, their format, and the various types of commands.

Introduction

Overview of Commands

Table 3 gives a brief overview of the System Automation for OS/390 commands. This overview describes the various types of commands, their functions and where they can be entered. For detailed information about how to issue commands, refer to *System Automation for OS/390 User's Guide*.

Table 3. Overview of Commands

Type of command	Function	Where entered	Notes
System operations commands			
	Control and maintain resources in the enterprise from a single point of control	NetView [®] console, or NMC	
I/O operations commands			
	Control input/output devices	TSO/ISPF, API, operator console	
Processor operations commands			
	Common commands for automation	API, NetView console, or NMC	Precede with ISQCCMD command
	Send commands to PC focal-point port	PC keyboard or console	Precede command with ISQSEND command unless directly issued from a processor operations PC
	Control the PC and its interface with the focal-point system and target system	PC keyboard or console	Precede command with ISQSEND, unless issued directly from a processor operations PC
	PC screen-handler commands to target ports on a target system	PC keyboard or console	Precede command with ISQSEND command unless issued directly from a processor operations PC. Precede command with # if issuing via ISQSEND. Console designator parameters OCA, OCB, SCA, SCB, and OC are abbreviated to "console"
	Control hardware processors	NetView console or NMC	
	Emulate a remote console using passthru	NetView console	Use the ISQTCC command

Understanding terms

Resource

In SA OS/390 V2R1 the term resource means any automatable entity. The Automation Manager administers resources. A resource is identified by its name. The resource name must be unique within the automation manager's name space. The format of the resource name is *name/type[/system]*. The three components of the resource name can be the following:

Name Specifies the resource or application group.

Type The type specifies the type of the resource. The type parameter is optional. It can have the following values:

APL Indicates that the resource is a subsystem.

APG Indicates that the resource is an application group.

EVT Indicates that the resource is an event.

SVP Indicates that the resource is a service period (schedule).

SYG Indicates all resources of a system. SYG is created automatically. This is the application group which contains all resources of a particular system.

SYS Indicates that the resource is a system.

System

The system name specifies the system where the resource is defined. The system parameter is not used for sysplex application groups.

Specifying Resources

There are various ways of specifying automation manager resources in System Automation for OS/390. The scope of the automation manager is a sysplex.

Using Fragments:

The following shows a few examples of how to specify resources using fragments:

TSO All resources that have the name TSO.

TSO/APG

All resources that have the name TSO, and the type APG.

TSO/APL

All resources that have the name TSO, of the type APL, on all systems in the sysplex.

Using Wildcards:

You can also use an asterisk (*) to substitute one or more fragments of a fully qualified resource name. The following shows a few examples of how to specify resources using wildcards:

*/APL/SYS1

All resources of type APL, on system SYS1.

TSO/*/SYS1

All resources that have the name TSO, of any type, on system SYS1.

/SYS/

All resources of type SYS, on any system in the sysplex.

/*/ All resources of any type on any system in the sysplex.

You can specify wildcards for a fragment of the fully qualified resource name as a leading or trailing character. The following shows a few examples:

TSO*/APL/KEY*

All resources starting with TSO, of type APL, on the systems whose names start with KEY.

TSO/AP*/

All resources whose names end with TSO, of any type starting with AP, on any system in the sysplex.

You can use % as a placeholder for one character which means that any character in that position of the resource name matches. The following shows a few examples:

%TSO*

All resources whose names contain TSO starting in character two.

TSO/S%S/*

All resources whose names start with TSO and where the first and last character of the type is S, on any system in the sysplex.

If the resource that you specified is not unique within the domain of the automation manager, a selection panel will be displayed where you can select what you want to work with:

```
A0FKSEL4          SA OS/390 - Command Dialogs      Line 1 of 4
Domain ID = IPSNO  ----- INGINFO -----      Date = 02/24/00
Operator ID = NETOP1                               Time = 11:12:00

Multiple instances found for TSO
Select one item to be processed, then press ENTER.

Sel  Name          Type System      Description
-----
     TSO           APL KEY1         Time Sharing Option
     TSO           APL KEY2         Time Sharing Option
     TSO           APL KEY3         Time Sharing Option
     TSO           APL KEY4         Time Sharing Option

Command ==>
PF1=Help      PF2=End      PF3=Return
PF6=Roll                                           PF12=Retrieve
```

Figure 1. Resource Selection Panel

Subsystem

The automation agent administers subsystems. A subsystem is also a resource, as for example in an application group. A subsystem always leads to a resource like *name/APL[/system]*. For further information on subsystems in SA OS/390, refer to *System Automation for OS/390 User's Guide*.

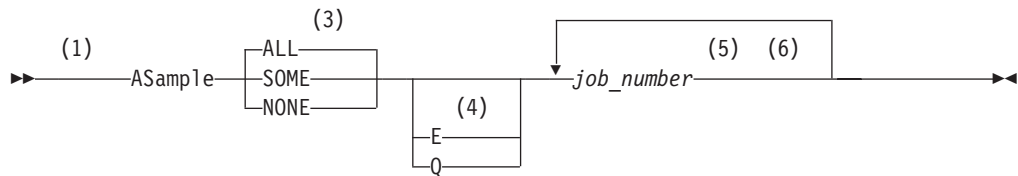
Application

An application is an OS/390 subsystem, started task, batch job or non-MVS resource that runs on a system in the SA OS/390 enterprise. An application cannot be linked to a system directly. It must be defined as part of an application group, and it may belong to more than one application group. For further information on how to define an application to SA OS/390, refer to *System Automation for OS/390 Defining Automation Policy*.

Format of Syntax Diagrams

The description of each command and routine includes the format of the command in a syntax diagram. The diagram shows the operands for the commands. Use blanks to separate the operands, unless otherwise stated or diagrammed.

To construct a command from the diagram, follow the diagram from left to right, choosing the path that suits your needs. Following is a sample syntax diagram that explains how to use it to construct a command. This command is for illustration only. Do not attempt to enter it.



Notes:

- 1 Start here. ►► indicates the start of the diagram.
- 2 You can type ASAMPLE or abbreviate it to AS. The uppercase characters are the abbreviation. Operands on the main line are required.
- 3 Choose one of the options. The default is always above the main line. In this case, ALL is the default. If the option includes punctuation marks, include them too: =(), .
- 4 Choose E, Q, or neither. Operands below the main line are optional.
- 5 Repeat *job_number* any number of times. Variables are shown in italics. Replace them with a real name or value. Note that if you specify more than one *job_number* you must put them in brackets.
- 6 End here. ►► indicates the end of the command.

If a command continues to the next line, you see → and ►. |and| indicates a fragment for a specific condition or option.

Examples:

```
====> asample none q DAF00821 DAF00832 ELD00824
====> as some DLR01445
```

Part 2. SA OS/390 System Operations Commands

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This part describes SA OS/390 system operations commands - their format, and specifics of how to use them.

Refer to *System Automation for OS/390 User's Guide* for general information about the SA OS/390 commands.

System Operations Commands

Using System Operations Commands

General Information

You can issue any system operations command by typing the command and its parameters on the command line of any NetView or system operations panel. You can also issue system operations commands by entering the command via NMC. System Automation for OS/390 also provides a menu of command dialogs which allows you to select a command dialog panel for a specific system operations command. For further information on how to issue system operations commands, refer to *System Automation for OS/390 User's Guide*.

Overview of Commands that Operate Sysplex-Wide

The following lists the sysplex-wide commands:

- DISPEVTS
- INGAMS
- INFILT
- INGHIST
- INGINFO
- INGLIST
- INGEVENT
- INGRELS
- INGREQ
- INGSCHED
- INGSET
- INGTRIG
- INGVOTE

You can issue sysplex-wide commands from any system within the sysplex, regardless of where the resource resides.

If no target is specified the command that was issued will find the affected resources in the sysplex.

Specifying the target system parameter is only required when routing the command from the focal-point system to a system in another sysplex or to a single remote system.

For further information about sysplex-wide commands, refer to *System Automation for OS/390 User's Guide*.

Additional Parameters for System Operations Commands

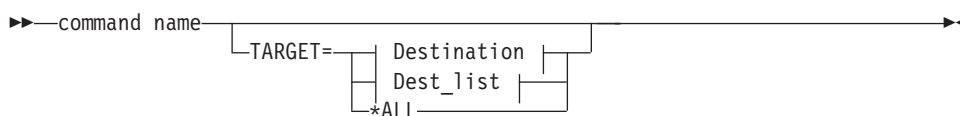
The following parameters are available for a number of system operations commands:

TARGET

The TARGET parameter lets you specify the system where the command is to be processed. You can direct the command to:

- A particular system in the sysplex, or enterprise
- A subset of systems in the sysplex, or enterprise
- A sysplex
- All systems currently active in the local sysplex

The syntax is as follows:



Destination:



Dest_list:



Where:

system_name

Specifies the name of the OS/390 system

domain_ID

Specifies the NetView domain identifier

sysplex_name

Specifies the name of the sysplex

***ALL** SA OS/390 specifies that the command should be routed to all SA OS/390 systems that are currently active in the local sysplex.

Note, that not all of the commands that support the TARGET parameter also support the *ALL value. Refer to the respective syntax diagrams for information about whether *ALL is supported.

The search sequence is as follows:

1. System name within the local sysplex
2. Domain ID within the local sysplex
3. Local sysplex name

If it is a human operator, the search continues in the following sequence:

- Domain ID within the enterprise
- System name within the enterprise
- Sysplex name within the enterprise

If no value is specified, and the command does not refer to a defined resource, it is processed on the local system.

Note: The following only applies to commands that do **not** operate sysplex-wide.

If you do not specify the TARGET parameter, and the SA OS/390 command refers to a defined resource, SA OS/390 acts as follows:

- If the resource is only defined on one active system, the command is routed to that specific system.
- If it is an autotask, or when processing the command in linemode, SA OS/390 checks whether or not the resource is defined on the local system. If it is, the command is processed locally. Otherwise, an error message is issued.
- If the resource is defined on more than one active system, and the command is not running on an autotask, SA OS/390 pops up the following selection panel asking you to select the resource, or resources that should be affected by the command:

If you type `dispacf mvsesa` a panel similar to the following is displayed:

```
AOFKSEL1          SA OS/390 - Command Dialogs          Line 1 of 4
Domain ID = IPUFA  ----- DISPACF -----          Date = 06/27/00
Operator ID = NETOP1                               Time = 17:43:12

Multiple instances found for MVSESA in sysplex(es) AOCPLX
Select one or more items to be processed, then press ENTER.

   Sel   System   Domain
   ---   -
         AOCA     IPUFA
         AOCB     IPUFB
         AOCC     IPUFC
         AOCD     IPUFD

Command ==>
PF1=Help   PF2=End   PF3=Return
PF6=Roll                                     PF12=Retrieve
```

Figure 2. Resource Selection Panel 1 – Non-sysplex-wide

If the target is within the local sysplex, the communication method is via XCF facilities. Otherwise, the NetView RMTCMD (LU 6.2) command is used. Sysplex-wide commands are processed locally.

Note: The following only applies to sysplex-wide commands.

If a target is specified and the resource is not defined on the specified system, SA OS/390 issues an error message.

If you type `ingvote stdt000*` a panel similar to the following is displayed:

```

A0FKSEL4          SA OS/390 - Command Dialogs          Line 1 of 32
Domain ID = IPUFA ----- INGVOTE -----           Date = 06/27/00
Operator ID = NETOP1                                     Time = 17:50:39

Multiple instances found for STDT000*
Select one item to be processed, then press ENTER.

Sel  Name          Type System      Description
-----
      STDT000AN00  APL  AOCA        Parent for all STD* appl 05/16/00 06:25
      STDT000AN00  APL  AOCC        Parent for all STD* appl 05/16/00 06:25
      STDT000AN00  APL  AOCC        Parent for all STD* appl 05/16/00 06:25
      STDT000AN00  APL  AOCC        Parent for all STD* appl 05/16/00 06:25
      STDT000AN1A  APL  AOCA        Child of AN10 (child tree --- AN1B)
      STDT000AN1A  APL  AOCC        Child of AN10 (child tree --- AN1B)
      STDT000AN1A  APL  AOCC        Child of AN10 (child tree --- AN1B)
      STDT000AN1A  APL  AOCC        Child of AN10 (child tree --- AN1B)
      STDT000AN1B  APL  AOCA        Child of AN10 (child tree --- AN1B)
      STDT000AN1B  APL  AOCC        Child of AN10 (child tree --- AN1B)
      STDT000AN1B  APL  AOCC        Child of AN10 (child tree --- AN1B)

Command ==>
PF1=Help      PF2=End      PF3=Return
PF6=Roll      PF8=Forward  PF12=Retrieve

```

Figure 3. Resource Selection Panel 2 – Sysplex-Wide

OUTMODE

This parameter lets you specify the output mode of a command. If you specify **LINE**, the output is displayed in line mode, independent of the task type.

The syntax is as follows:



Further characteristics are the following:

- No color attributes are set for data that is shown in line mode.
- The sequence of the fields may be different in line mode than in fullscreen.
- Not all fields from the fullscreen display may be shown in line mode.
- Line mode output is shown in a multiline message.
- Line mode output is not processed by the message automation table and is not written to the netlog. To obtain output from a command such as **DISPSTAT** in the netlog, use a **PIPE** command, for example:

```
PIPE NETV DISPSTAT OUTMODE=LINE | LOGTO NETLOG
```
- Line mode output cannot be processed by a **TRAP** and **WAIT**.
- System operations commands can be issued within a NetView **PIPE** by using the **OUTMODE=LINE** parameter, unless noted otherwise in the command description.
- If you work with **OUTMODE=LINE** no prompt panel is displayed.
- If no value is specified, the decision whether to display the command output by means of a full-screen panel or in line mode is based on the NetView task type the command is running on.

Deciding the Format of the Command Output (Full-Screen only)

Most of the automation manager commands support the SORT and FIND subcommands.

Sorting a List

The SORT subcommand lets you display a list ordered according to certain criteria. You can specify the following:

sort_order

Specifies the sort order. It can be one of the following:

A The list is displayed in ascending order. This is the default.

D The list is displayed in descending order.

coln Specifies the column to be sorted. More than one column can be specified separated by a comma or a blank.

For example, specifying SORT D,3 1 4 sorts the display in descending sequence and in the order column 3, 1 and 4.

The syntax of the SORT subcommand is as follows:



Searching for Strings

The FIND subcommand searches the display data for the specified string. It can be abbreviated to F. The RFIND (repeat find) command is used to find the next occurrence of the string in the display data. It can be abbreviated to RF. With the FIND and RFIND commands you can specify the following parameters:

searchstring

Specifies the string to be searched for. The search starts at the first line shown in the display.

direction

Specifies the direction used for the search. The direction can be:

Next Forward direction. This is the default. It can be abbreviated to N.

Previous

Backward direction. It can be abbreviated to P.

The syntax of the FIND subcommand is as follows:



Purpose

The ACF command is used to load automation control file data. You can use ACF to refresh data of a particular system if it does not affect automation manager configuration data.

Recommendation

Use the INGAMS command rather than the ACF command to load or refresh an automation control file. Thus, you can make sure that the configuration matches the automation manager and the automation agents.

Information for msys for Operations users

The ACF COLD command is used to activate configuration changes you have made in the msys for Operations configuration file AOFCUST.

The ACF STATUS command displays internal information about generating the ACF with the msys for Operations configuration file AOFCUST.

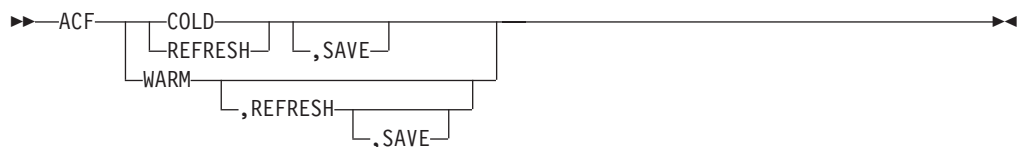
All other ACF parameters described in the following are not applicable for msys for Operations.

Syntax

The following syntax diagrams show how to use the ACF command to perform the different functions ACF supports. Do not combine syntax from the separate diagrams in the same ACF call.

Use the following syntax to:

- Load an automation control file
- Load and save an automation control file using the NetView save/restore facility for subsequent warm starting



To display the status of the automation control file use the following syntax:



To save the current automation environment using the NetView Save/Restore facility for subsequent warm starting, use the following syntax:

Parameters

CACHE

Displays information about the ACF that is currently stored in the NetView save/restore database

COLD

Reloads the currently loaded automation control file data from disk. Automation is disabled while the automation control file load is performed.

WARM

Restores automation control file data from cache. Automation is disabled while the automation control file load is performed.

REFRESH

Updates the currently loaded automation control file data. Automation is not disabled while the automation control file load is performed. Only data that has been changed will be loaded, everything else remains the same as before. This is the safe way to update the automation control file. Refresh will not load data of a subsystem that is currently in the process of being started or stopped by SA OS/390. SA OS/390 will automatically retry the refresh five minutes later for the data that can currently not be processed.

SAVE

The SAVE parameter will save the current automation environment using the NetView SAVE/RESTORE facility. The saved automation environment is used for future WARM starting.

STATUS

Displays information about the current in-storage automation control file.

Restrictions and Limitations

- If you use COLD/WARM, automation is disabled while the ACF LOAD is in progress. If you use REFRESH, automation continues.
- An automation control file cannot be loaded by an operator using the ACF command if the automation flag for major resource MVSESA is set to 'N'. If the automation flag for MVSESA.RELOAD.CONFIRM minor resource is set to 'Y', the operator can reload the ACF.
- ACF must comply with the automation manager configuration. Otherwise, message AOF618I is issued.

Usage

- ACF performs two flag checks when the automation control file is reloaded, restored or saved. The checks are of the Automation flags for MVSESA.RELOAD.CONFIRM and MVSESA.RELOAD.ACTION. The action flag is checked only if the reload, restore or save is to continue.

MVSESA.RELOAD.CONFIRM

This lets you:

- Turn the flag off and thus disable an automation control file reload by an operator.
- Tell SA OS/390 to ask for confirmation by setting the AOFCONFIRM TGLOBAL to YES in a flag exit

ACF

- Use a flag exit to perform additional checks and processing before deciding to either cancel or proceed with the reload or restore.

If the flag is found to be off, the operator cannot reload or restore the automation control file.

Note: You need to be aware of this if you turn the MVSESA automation flag off.

If the flag is on, the AOFCONFIRM task global is checked. If it is set to YES, then SA OS/390 will post a message requesting confirmation of the reload or restore request. If AOFCONFIRM is null, SA OS/390 will proceed with the reload or restore.

MVSESA.RELOAD.ACTION

This provides an opportunity for you to do your own processing once SA OS/390 is committed to reloading or restoring the automation control file. You can use a flag exit to call your own code. Your exit should return 0, indicating that the flag is turned on. If you return a non-zero return code, subsequent exits defined for the flag will not be invoked. Note that there is no way of preventing the reload or restore from an exit on this flag. Refer to *System Automation for OS/390 Defining Automation Policy* and to *System Automation for OS/390 Customizing and Programming* for further information.

Messages

The following is a list of messages that are issued during the operation of ACF.

For the load function (COLD/REFRESH/WARM):

```
AOF042I MEMBER ACFZ999 NOT FOUND
AOF100I 16:05:09 : 'ACF REFRESH' COMMAND ISSUED
AOF618I NO VALID ACF FOUND FOR sysname - detail description
AOF782I AUTOMATION CONTROL FILE PROCESSING COMPLETED
```

For the status function (STATUS):

```
AOF005I MEMBER ACFZ999 CURRENTLY BEING USED FOR THE CONTROL FILE
AOF006I BUILT BY opid ON 02/22/00 AT 18:05:17
AOF006I REFRESHED BY opid ON 03/09/00 AT 16:42:51
AOF006I CONFIGURATION TOKEN = 200002221801085A0345229673
AOF006I CONFIGURATION DATASET = AOC.GDGS.ACF.G0007V00
AOF002I END OF MULTI-LINE MESSAGE GROUP
```

For the status function (STATUS,CACHE):

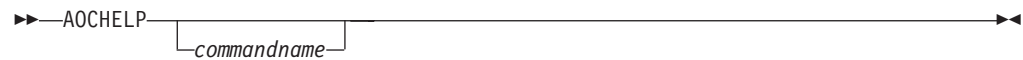
```
AOF005I MEMBER ACFZ999 CURRENTLY BEING SAVED IN THE CACHE
AOF006I BUILT BY opid ON 02/22/00 AT 18:05:17
AOF006I SAVED BY opid ON 03/09/00 AT 16:42:51
AOF006I CONFIGURATION TOKEN = 200002221801085A0345229673
AOF006I CONFIGURATION DATASET = AOC.GDGS.ACF.G0007V00
AOF002I END OF MULTI-LINE MESSAGE GROUP
```

AOCHELP

Purpose

AOCHELP displays information on system automation commands, and enables you to execute them.

Syntax



Parameters

commandname

Specifies the SA OS/390 system operations command that you require information about.

Restrictions and Limitations

- Some commands may not be executed from the AOCHELP command dialog. Attempts to execute these commands produce SA OS/390 message AOF129I.
- Help is available only in full-screen mode.
- The AOCHELP command can only be used when SA OS/390 has initialized.

Usage

If you type `aochelp` by itself, you see a list of commands to choose from.

From this panel you can ask for help on a command by entering its item number.

Examples

To get help, specify the associated number of the command.

```

AOFPH000          SA OS/390 - Command Dialogs          Line 1 of 63
Domain ID   = IPUF9   ----- AOCHELP -----          Date = 01/14/00
Operator ID = NETOP1                                Time = 17:38:06

      1  @D          Issue MVS DISPLAY commands
      2  @DS        Issue MVS DEVSERV commands
      3  @V          Issue MVS VARY commands
      4  AOCHELP    Display help for SA OS/390 commands
      5  AOCTRACE   Control the SA OS/390 internal trace
      6  ASSIST      Test subsystem automation
      7  CFDRAIN    Prepare a Coupling Facility for remove
      8  CROSS DOMAIN Dealing with other domains
      9  DISPACF    Display control file information
     10  DISPAOPS   Display automated operator information
     11  DISPASF    Display status file information
     12  DISPASST   Display assist settings
     13  DISPATHR   Display all threshold settings
     14  DISPAUTO   Display a list of display commands

Enter n for help or nX to execute the command (if possible).

Command ==>
  PF1=Help    PF2=End    PF3=Return    PF6=Ro11
               PF8=Forward    PF12=Retrieve
  
```

Figure 4. AOCHELP Command Dialog Panel

To execute the command, specify the number associated with the command followed by an `x`, for example, `9x`.

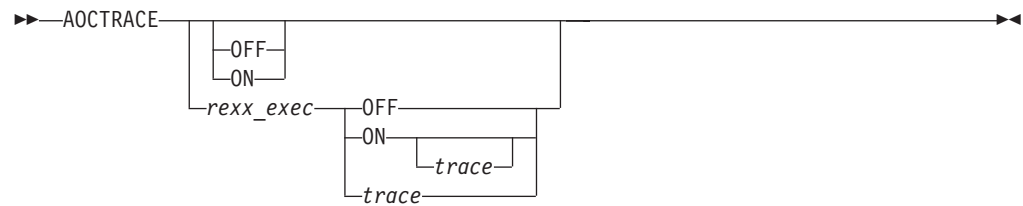
AOCTRACE

AOCTRACE

Purpose

The AOCTRACE command turns the SA OS/390 system operations debugging feature on or off. It works with both a global debugging feature, and two automation procedure (REXX EXEC) specific ones.

Syntax



Parameters

rexx_exec

The name of the REXX EXEC you want to debug.

ON

Turns the debugging feature on.

If you do not specify a REXX EXEC, AOCTRACE activates a global debugging flag. This causes each SA OS/390 system operations REXX EXEC that is invoked to write a record to the netlog showing the parameters it was invoked with.

If you do specify a REXX EXEC, only that REXX EXEC writes messages to the netlog. The netlog shows when and where the REXX EXEC was called, and what parameters were given.

If you specify a REXX EXEC but not a trace, an intermediate level of debugging is activated for the specified REXX EXEC. This causes the REXX EXEC to issue a number of messages describing its actions. Note, however, that not all REXX EXECs support this facility.

OFF

Turns the debugging feature off.

If a REXX EXEC is specified, this option deactivates both the intermediate and REXX tracing for the specified REXX EXEC.

If a REXX EXEC is not specified, this option disables the global trace.

trace

The type of REXX trace that you want for the specified REXX EXEC. Valid values are:

A	All
R	Results
I	Intermediates
C	Commands
E	Errors
F	Failures
L	Labels
O	Off
N	Normal

Restrictions and Limitations

The trace operand can only be used on interpreted REXX EXECs.

Using the trace on certain REXX EXECs can cause execution problems, particularly in REXX EXECs which trap messages.

AOCTRACE

The REXX trace setting of S (Scan) is not available.

Examples

If you type aotraces on you see a message indicating that the debugging facility is enabled. While the debugging facility is enabled, message AOF700I is written to the netlog for each procedure being processed.

For further information on how to use the AOCTRACE command refer to the Appendix on “Problem Determination” in *System Automation for OS/390 User’s Guide*.

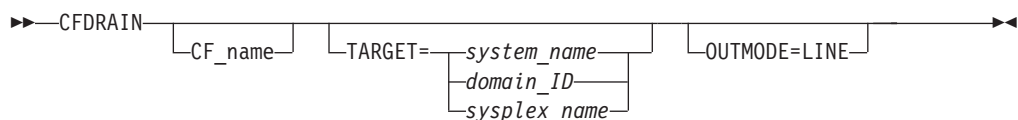
CFDRAIN

Purpose

The CFDRAIN command releases a coupling facility (CF) from its structures and connections in order to remove it from the sysplex for maintenance. The CFDRAIN command can handle the following three instances:

- Structures supporting rebuild
- Structures having FAILED-PERSISTENT connections only
- Structures with no connections

Syntax



Parameters

CF_name

Name of the coupling facility for which the structures should be displayed. The default is a selection panel that shows all available coupling facilities.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The CFDRAIN command can only be used when SA OS/390 is initialized.

The CFDRAIN command cannot be issued from an SA OS/390 1.3 or 2.1 system if the instance runs in a sysplex with another SA OS/390 2.1 with APAR OW47903, or with msys for Operations running.

Usage

Depending on the status of the coupling facility and its allocated structures, you can execute one of the three following actions via the program function key:

DRAIN

Disconnects the coupling facility from its connected systems by setting the sender path(s) OFFLINE

FORCE

Forces the deletion of structures (that have either no connection or FAILED-PERSISTENT connections only) before disconnecting the coupling facility

REBUILD

Starts the rebuild process of structures supporting rebuild

Each action must be confirmed before it is executed.

To avoid performance degradation due to multiple rebuild processes, or unpredictable results due to multiple executions of an action, all actions are executed on the dedicated autotask "AUTXCF" of a dedicated NetView ¹. Therefore, an action is rejected as long as this autotask is busy. Since the action can take a long time, it is also executed asynchronously to prevent the operator from being blocked. To check the progress, use the refresh function.

The status of the coupling facility can be as follows:

DRAIN

The coupling facility is being disconnected from the connected systems.

DRAINED

The coupling facility has no connection to any system and can be removed from the sysplex.

FORCE

The allocated structures are being deleted from the coupling facility.

NORMAL

The coupling facility may have allocated structures that have at least one connection to a system.

REBUILD

Either all allocated structures that have REBUILD capability are being removed from the coupling facility by the XCF rebuild process, or one particular structure is being removed.

The condition of an allocated structure can be:

Structure is pending allocation

XCF accepted a deletion command of the structure but does the real deallocation later.

Rebuild is not supported

The structure does not allow for a rebuild.

No connection exists

Since no connection exists, it cannot be determined if the structure supports rebuild. However, the structure can be forced to be deleted.

No alternate coupling facility defined

The structure supports rebuild but has no alternate coupling facility defined where it can be rebuilt.

1. The dedicated NetView is the first NetView of the alphabetically sorted list of active NetViews running SA OS/390.

Insufficient space detected for rebuild

No alternate coupling facility has space to rebuild the structure.

The structure's initial size is less than its actual size

The application did not change the policy size. On rebuild, the structure is only rebuilt to its initial size. Then, the size is altered. However, the application has to change the policy size.

Structure is being rebuilt

The structure is being rebuilt to another coupling facility.

Duplex rebuild is being stopped

The application is being disconnected from the one of the two structures that is allocated on this coupling facility. After disconnecting, the structure is deleted.

Duplex rebuild is active

The application is connected to two structures of the same content but on different coupling facilities.

No active connection exists

The structure has only DISCONNECTING, FAILED, or FAILED-PERSISTENT connections.

Structure is awaiting rebuild

The structure has been selected for rebuild but has not been processed yet.

System-managed rebuild is supported

The structure was created with ALLOWAUTO=YES and supports rebuild via the OS/390 system-managed rebuild facility. This message is only displayed when ALLOWREBUILD=NO is also set for the structure.

System-managed – no connections

The structure has no connections but supports rebuild via the OS/390 system-managed rebuild facility.

System-managed – no active connections

The structure has no active connections but supports rebuild via the OS/390 system-managed rebuild facility.

No alternate CF – no connections

The structure has no connections and supports system-managed rebuild. However, no alternate CF is defined or available.

No alternate CF – no active connections

The structure has no active connections and supports system-managed rebuild. However, no alternate CF is defined or available.

System-managed processes are not supported

The system-managed process level required by this structure to support system-managed processes is higher than the maximum system-managed process level supported by the system, or the CFRM data sets are not correctly formatted with SMREBLD(1).

b_l_a_n_k

The structure is allocated and has at least one active connection.

Examples

```

AOFLX900          SA OS/390 - Command Dialogs          Line 1 of 19
Domain ID   = SC55A          ----- CFDRAIN -----          Date = 09/17/99
Operator ID = AXEL                                     Time = 13:55:45

Coupling Facility ==> CF01          Status . . . . . : NORMAL
Sysplex . . . . . ==> WTSCPLX1
-----
Structure      Condition
DFHXQLS_TSQ1   *No connection exists.
DSNDSGC_GBP0   Duplex rebuild is active.
IMS_LOCK1      No active connection exists.
ISGLock
ISTMNPS
IXC_DEFAULT_1
IXC_DEFAULT_2
JES2CHPT_1     *Rebuild is not supported.
LOG_DFHLOG_P01
LOG_DFHLOG_P02
LOG_DFHSHUNT_P01
LOG_DFHSHUNT_P02 *No alternate coupling facility defined or available.
RRS_ARCHIVE_1
RRS_DELAYEDUR_1
RRS_MAINUR_1
RRS_RESTART_1
RRS_RMDATA_1
SYSTEM_LOGREC  The structure's initial size is less than its actual size.
SYSTEM_OPERLOG

Command ==>
F1=Help      F2=End      F3=Return      F6=Roll
              F9=Refresh  F10=Rebuild    F12=Retrieve

```

Figure 5. CFDRAIN Command Dialog Panel

- The Coupling Facility field shows the name of the coupling facility.
- The Sysplex field shows the name of the sysplex.
- The Status field shows the status of the coupling facility.
- The Structure field shows the structures that are allocated to the coupling facility.
- The Condition field shows the condition of an allocated structure.

The PF10 key rebuilds the structure of the coupling facility, for example, the structure of CF01 is moved to CF02.

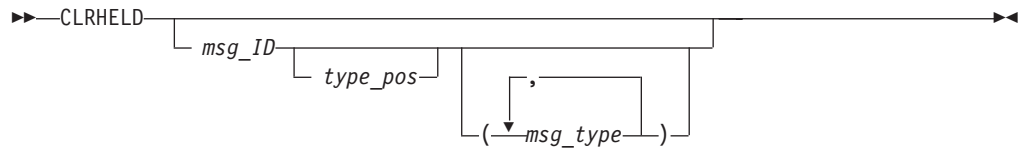
CLRHELD

Purpose

This command provides a simple interface through which you can clear all or some of your held messages. Selection for partial clearing is primarily specified through a partial message ID, and can be sub-qualified by message type.

CLRHELD

Syntax



Parameters

msg_ID

Specifies the ID or partial ID of the message to be cleared. All held messages that start with this string are cleared. If not specified, all held messages are cleared.

msg_type

Specifies the type of the message (I, E, A, W or D) that is to be cleared. It acts as a sub-qualifier for the message ID, so that if both message ID and message type or types are specified, only those messages matching the message ID and one of the message types are cleared.

type_pos

Specifies the starting position, within the first line of the message, from which the message type or types are looked for. If *type_pos* is not specified, it defaults to 7, which lines up with the message type field on SA OS/390 AOFxxxt messages.

Restrictions and Limitations

- Although CLRHELD runs on any OST it is of use only on an operator logon that has some held messages.
- Once CLRHELD has unheld a message, there is no way of having the message held again.

Usage

Use this command to remove held messages from the NCCF console.

You can reduce the number of help messages you receive with the INGNTFY command.

Examples

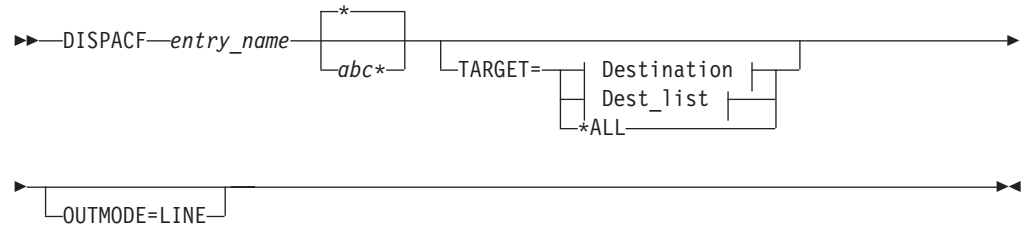
- To clear all held messages type CLRHELD. You see All held messages are unheld.
- To clear all held AOF messages type CLRHELD AOF. You see All held AOF messages are unheld. Other held messages are left alone.
- To clear all held AOF information and decision messages type CLRHELD AOF I D. You see All held AOF messages with a type of I or D are unheld. No other held messages are unheld.
- To clear all held AOF571 messages type CLRHELD AOF571. You see All held AOF571I messages are unheld. All other messages are left alone.

DISPACF

Purpose

The DISPACF command displays resource information and automation policy settings for a specific entry or entry-type pair in the automation control file.

Syntax



Destination:



Dest_list:



Parameters

entry_name

Specifies the name of the entry in the automation control file.

If you specify *, all entry names are displayed.

*abc**

Specifies the type within the entry in the automation control file. If you specify a particular type-name, only that type-name (and its data fields) for the entry-name is displayed.

If you specify *, all of the type-names and their data fields for the entry-name are displayed. This is the default. Wildcard is supported.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

DISPACF

Restrictions and Limitations

The DISPACF command can only be used when SA OS/390 is initialized.

Examples

If you type `dispacf subsystem`, you see a full-screen display similar to the following:

```
AOFK3D0X          SA OS/390 - Command Response          Line 1   of 893
Domain ID   = IPSNO   ----- DISPACF -----          Date = 07/19/00
Operator ID = NETOP1                                     Time = 18:38:13

Command = ACF ENTRY=SUBSYSTEM,TYPE=*,REQ=DISP
SYSTEM = KEY3      AUTOMATION CONFIGURATION DISPLAY - ENTRY= SUBSYSTEM
-----
AUTOMATION CONFIGURATION DISPLAY - ENTRY= SUBSYSTEM
TYPE IS ALLOCAS
JOBTYPE      = MVS
RESTARTOPT   = ALWAYS
SHUTDLY     = 00:01:00
STRTDLY     = 00:02:00
TERMDLY     = 00:00:12
EXTSTART    = ALWAYS
EXTSTOP     = ALWAYS
JOB         = ALLOCAS
SCHEDSUB    = MSTR
SDESC       = 'MVS ADDRESS SPACE'
TYPE IS AMCP
IPOPTIONS   = NOSTART
PARMS       = ',RUN=3'
PROCNAME    = AAAZTSEM
JOB         = AMCP
JOBTYPE     = TRANSIENT
OBJECTCLASS = JES2_TRANS
PARENT      = (JES2)
SDESC       = 'SIMULATED SUBSYSTEM'
TRANRERUN   = NO
TYPE IS ANTMAIN
JOBTYPE     = MVS
RESTARTOPT  = ALWAYS
SHUTDLY    = 00:01:00
STRTDLY    = 00:02:00
TERMDLY    = 00:00:12
EXTSTART   = ALWAYS
EXTSTOP    = ALWAYS
JOB        = ANTMAIN
SCHEDSUB   = MSTR

Command ==>
PF1=Help      PF2=End      PF3=Return      PF6=Ro11
PF8=Forward   PF9=Refresh    PF12=Retrieve
```

Figure 6. Display of Automation Control File Settings for Subsystem (DISPACF SUBSYSTEM)

This command displays information for all types of the SUBSYSTEM entry, since you accepted the default TYPE=*.

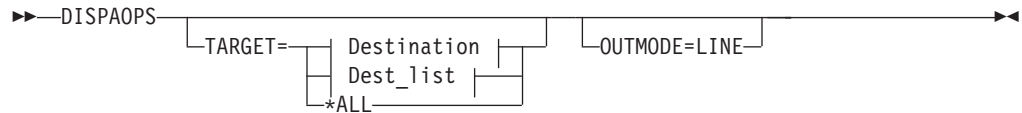
If you type `dispacf subsystem jes2`, you see only information on the JES2 type.

DISPAOPS

Purpose

The DISPAOPS command displays a list of automation operators that are currently active.

Syntax



Destination:



Dest_list:



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPAOPS command can only be used when SA OS/390 is initialized.

Examples

Type `dispaops` on any command line and press the ENTER key. You see a panel similar to the following:

DISPAOPS

```
AOFK2SO          SA OS/390 - Command Dialogs          Line 1 of 20
Domain ID = IPUF9 ----- DISPAOPS -----         Date = 12/17/97
Operator ID = NETOP1                                Time = 15:19:59
```

System	Automated Function	Primary	Status	Secondary	Status
AOC9	GATOPER	GATIPUF9	ACTIV		
AOC9	AOFWRK01	AUTWRK01	ACTIV		
AOC9	AOFWRK02	AUTWRK02	ACTIV		
AOC9	AOFWRK03	AUTWRK03	ACTIV		
AOC9	AOFWRK04	AUTWRK04	ACTIV		
AOC9	AOFWRK05	AUTWRK05	ACTIV		
AOC9	BASEOPER	AUTBASE	ACTIV		
AOC9	SHUTOPER	AUTSHUT	ACTIV		
AOC9	MONOPER	AUTMON	ACTIV		
AOC9	GSSOPER	AUTGSS	ACTIV		
AOC9	MVSCONS	AUTCON	ACTIV		
AOC9	MSGOPER	AUTMSG	ACTIV		
AOC9	NETOPER	AUTNET1	ACTIV	AUTNET2	ACTIV
AOC9	JESOPER	AUTJES	ACTIV		
AOC9	SYSOPER	AUTSYS	ACTIV		
AOC9	RECOOPER	AUTREC	ACTIV		
AOC9	LOGOPER	AUTLOG	ACTIV		
AOC9	PPIOPER	AOFARCAT	ACTIV		
AOC9	HBOPER	AUTHB	ACTIV		
AOC9	RPCOPER	AUTRPC	ACTIV		

```
Command ==>
PF1=Help      PF2=End          PF3=Return     PF6=Roll
               PF9=Refresh        PF12=Retrieve
```

Figure 7. Automation Operators Panel

- The System field shows the name of the system where the automated function is defined
- The Automated Function field shows the name of the automated function used in SA OS/390 automation procedures
- The Primary field shows the NetView automation operator ID assigned to this automated function
- The Status field shows the current status of the primary automation operator
- The Secondary field shows the Backup NetView automation operator ID assigned to this automated function
- The Status field shows the current status of the backup automation operator

The primary and backup NetView automation operator IDs are assigned to the automated function in the command dialogs.

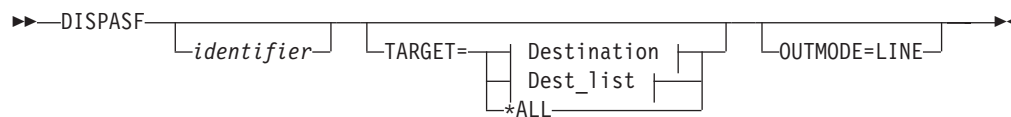
DISPASF

Purpose

DISPASF displays the information contained in the automation status file. This includes the:

- Automation status
- Operator ID that last changed the record
- Last threshold exceeded
- Date and time of last monitoring cycle

Syntax



Destination:



Dest_list:



Parameters

identifier

Specifies either a subsystem name, or the name of any resource in the automation status file. You can specify any subsystem identified in the automation control file. If you do not specify a parameter, a panel is displayed on which you can specify an identifier.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPASF command can only be used when SA OS/390 is initialized.

Examples

If you type `dispasf tso TARGET=*ALL`, you see a panel similar to the following:

DISPASST

```

A0FK3D0X          SA OS/390 - Command Response      Line 1    of 9
Domain ID   = IPUF9   ----- DISPASF -----      Date = 12/17/97
Operator ID = NETOP1                                     Time = 15:28:19

Command = ASF ID=TSO,REQ=DISP
SYSTEM = AOC9      STATISTICS DISPLAY REQUESTED FOR TSO
-----
STATISTICS DISPLAY REQUESTED FOR TSO
ID= TSO           , TYPE= SUBSYSTEM  , STATUS= UP
LAST UPDATE BY OPERATOR AUTMON
LAST THRESHOLD EXCEEDED -
OPERATOR NOTIFIED: N
LAST STATUS CHANGE DATE= 12/17/97 , TIME= 14:21 , OPID= AUTWRK05
LAST MONITORED DATE= 12/17/97 , TIME= 15:09
NO ERROR DATA AVAILABLE
END OF MULTI-LINE MESSAGE GROUP

Command ==>
PF1=Help      PF2=End      PF3=Return    PF6=Roll
                PF9=Refresh  PF12=Retrieve
  
```

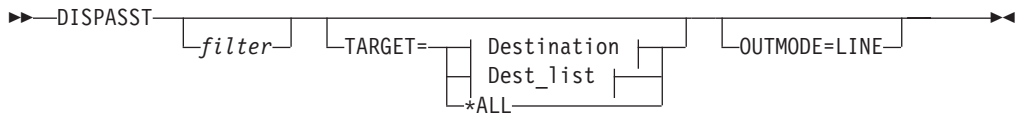
Figure 8. Display of Automation Status File Information for TSO (DISPASF TSO)

DISPASST

Purpose

DISPASST displays information on all resources that have specific assist settings, or that have specific automation flags defined.

Syntax



Destination:



Dest_list:

Parameters

filter

Is the filter to be applied for the output. Only resource names that match the filter criteria are displayed. Wildcard is supported. The filter consists of the major name and, optionally, of a minor name separated by a dot, for example, CICS*.TRANS* , or *.*CEMT. Specify * to view major resources. To view minor resources specify xyz.*..

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPASST command can only be used when SA OS/390 is initialized.

Examples

When you type dispasst you see a panel similar to the following:

AOFKAASS		SA OS/390 - Command Dialogs					Line 1 of 23	
Domain ID = IPUFG		----- DISPASST -----					Date = 11/25/99	
Operator ID = NETOP1							Time = 16:54:08	
		Assist Setting						
System	Resource	I	S	R	D	RS	Settings	
AOC1	DEFAULTS	-	-	-	-	-	- No setting	
AOC1	MVSESA	-	-	-	-	-	None Turned off	
AOC1	SUBSYSTEM	-	-	-	-	-	Log Write to Netlog	
AOC1	IMS10AA	-	-	-	-	-	Disp Display with SDF	
AOC1	DFS554A	-	-	-	-	-	? Error	
AOC1	MSC	-	-	-	-	-		
AOC1	0001	-	-	-	-	-	Flags	
AOC1	OLDS	-	-	-	-	-	-----	
AOC1	PROG	-	-	-	-	-	I Initial start	
AOC1	SAMPLE6	-	-	-	-	-	S Start up	
AOC1	TRAN	-	-	-	-	-	R Recovery	
AOC1	SAMPLE3	-	-	-	-	-	D Shut down	
AOC1	SAMPLE4	-	-	-	-	-	RS Restart	
AOC1	IMS10AB	-	-	-	-	-		

Command ==>>>

PF1=Help	PF2=End	PF3=Return	PF6=Roll
	PF8=Forward	PF9=Refresh	PF12=Retrieve

Figure 9. DISPASST Command Dialog Panel

- The System field shows the name of the system where the resource is defined.

DISPASST

- The Resource field shows the name of the resource. The first three entries are always DEFAULTS, MVSESA, and SUBSYSTEM. The other entries are sorted in alphabetical order.
Two types of resources are displayed, major and minor. Major resources are subsystems or 'generic' settings, while minor resources are specific situations or resources within a major resource. Automation flags for minor resources are derived from their major resources. Minor resources are shown indented one space to the right under their major resource.
- The Assist Setting fields show current assist settings for each automation flag, for each resource. The flag columns are headed with an abbreviation of the name of the automation flag.

The assist settings are:

- No setting
- None** Assist is turned off
- Log** Write to the netlog
- Disp** Display with SDF
- ?** There is an error

Refer to *System Automation for OS/390 Defining Automation Policy* for further information about assist mode.

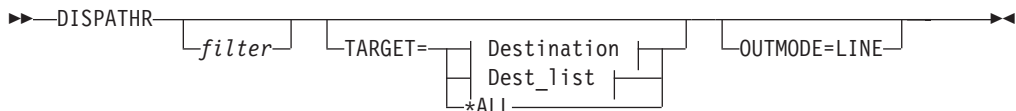
DISPATHR

Purpose

The DISPATHR command displays a summary of the thresholds that have been set either in your automation control file definitions or through the INGTHRES command dialog.

Only resources that have thresholds explicitly defined are displayed.

Syntax



Destination:



Dest_list:

Parameters

filter

Is the filter to be applied for the output. Only resource names that match the filter criteria are displayed. Wildcard is supported. The filter consists of the major name and, optionally, of a minor name separated by a dot, for example, CICS*.TRANS* , or *.*CEMT. Specify * to view major resources. To view minor resources specify xyz.*..

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPATHR command can only be used when SA OS/390 is initialized.

Examples

When you type dispathr you see a panel similar to the following:

AOFKAAD4		SA OS/390 - Command Dialogs		Line 1 of 7	
Domain ID = IPUF9		----- DISPATHR -----		Date = 12/17/97	
Operator ID = NETOP1				Time = 15:30:23	
System	Resource	Critical	Frequent	Infrequent	
AOC9	DEFAULTS	4 in 01:00	4 in 02:00	6 in 12:00	
AOC9	MVSESA	4 in 01:00	4 in 02:00	6 in 12:00	
AOC9	SUBSYSTEM	3 in 12:00	3 in 24:00	2 in 24:00	
AOC9	MVSDUMP	6 in 00:30	4 in 00:20	2 in 00:20	
AOC9	SMFDUMP	4 in 01:00	4 in 02:00	6 in 12:00	
AOC9	PIMSPGM	4 in 00:15	3 in 01:00	2 in 01:00	
AOC9	PIMS	1 in 99:00	1 in 99:00	1 in 99:00	

Command ==>			
PF1=Help	PF2=End	PF3=Return	PF6=Ro11
		PF9=Refresh	PF12=Retrieve

Figure 10. DISPATHR Command Dialog Panel

- The System field shows the name of the system where the resource is defined.
- The Resource field shows the name of the resource. The first three entries are always DEFAULTS, MVSESA, and SUBSYSTEM.
- The Critical field shows the critical threshold for the resource.

DISPATHR

If no critical threshold has been specified, the field is blank.

- The Frequent field shows the frequent threshold for the resource.
- The Infrequent field shows the infrequent threshold for the resource.

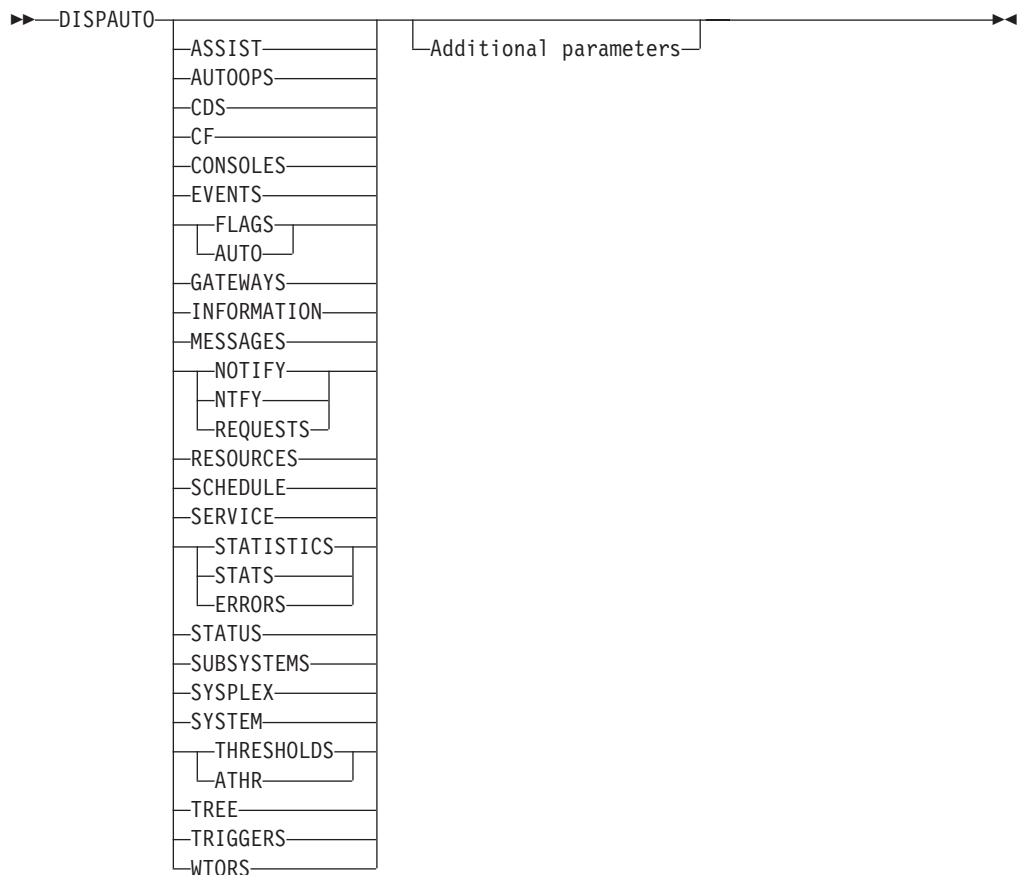
Thresholds are in the format *nn* in *hh:mm*, which means that the threshold is exceeded if more than *nn* errors occur within *hh* hours and *mm* minutes.

DISPAUTO

Purpose

DISPAUTO provides a menu from which you can initiate command dialogs that display information about your automation.

Syntax



Parameters

ASSIST

Invokes the DISPASST command dialog. See "DISPASST" on page 30 for more information.

AUTOOPS

Displays the DISPAOPS command dialog. See "DISPAOPS" on page 27 for more information.

CDS

Displays the DISPCDS command dialog. See “DISPCDS” on page 37 for more information.

CF

Displays the DISPCF command dialog. See “DISPCF” on page 39 for more information.

CONSOLES

Displays the DISPCONS command dialog. See “DISPCONS” on page 41 for more information.

EVENTS

Invokes the DISPEVTS command dialog. See “DISPEVTS” on page 48 for more information.

FLAGS or AUTO

Invokes the DISPFLGS command dialog. See “DISPFLGS” on page 50 for more information.

GATEWAYS

Displays the DISPGW command dialog. See “DISPGW” on page 53 for more information.

INFORMATION

Displays the DISPINFO command dialog. See “DISPINFO” on page 58 for more information.

MESSAGES

Displays the DISPMSGS command dialog. See “DISPMSGS” on page 59 for more information.

NOTIFY or NTFY

Invokes the DISPNTFY command dialog. See “DISPNTFY” on page 61 for more information.

REQUESTS

Displays the INGVOTE command dialog. See “INGVOTE” on page 179 for more information.

RESOURCES

Displays the INGLIST command dialog. See “INGLIST” on page 126 for more information.

SCHEDULE

Invokes the DISPSCHD command dialog. See “DISPSCHD” on page 64 for more information.

SERVICE

Invokes the INGSCHED command dialog. See “INGSCHEDED” on page 154 for more information.

STATISTICS or ERRORS or STATS

Invokes the DISPERRS command dialog. See “DISPERRS” on page 44 for more information.

STATUS

Invokes the DISPSTAT command dialog. See “DISPSTAT” on page 68 for more information.

SUBSYSTEMS

Invokes the DISPINFO command dialog. See “DISPINFO” on page 58 for more information.

DISPAUTO

SYSPLEX

Displays the DISPXSYS command dialog. See “DISPXSYS” on page 84 for more information.

SYSTEM

Displays the DISPSYS command dialog. See “DISPSYS” on page 75 for more information.

THRESHOLDS or ATHR

Invokes the DISPATCHR command dialog. See “DISPATCHR” on page 32 for more information.

TREE

Invokes the DISPTREE command dialog. See “DISPTREE” on page 79 for more information.

TRIGGERS

Invokes the INGTRIG command dialog. See “INGTRIG” on page 174 for more information.

WTORS

Displays the DISPWTOR command dialog. See “DISPWTOR” on page 83 for more information.

Note: All keywords can be abbreviated to the minimum unique abbreviation. Additional parameters are passed ‘as is’ to the appropriate command routine.

Restrictions and Limitations

The DISPAUTO command can only be used when SA OS/390 is initialized.

Usage

DISPAUTO can be used if you wish to find out information about the system or about automation policy, and cannot remember the appropriate fast path command.

Examples

If you type `dispauto` on an operator station task (OST) the following panel is displayed:


```

AOFKAADA          SA OS/390 - Command Dialogs          Line 1 of 23
Domain ID = IPSFM  ----- DISPAUTO -----          Date = 10/22/99
Operator ID = NETOP2                               Time = 16:04:05

  1  FLAGS          Display current automation flag settings
  2  SCHEDULE       Display all scheduled NOAUTO periods
  3  NOTIFY         Display status of all notify operators
  4  THRESHOLDS    Display all current threshold settings
  5  ERRORS         Display all resources with errors
  6  STATUS         Display the current status of all subsystems
  7  REQUESTS      Display all requests
  8  SUBSYSTEMS    Display information about subsystems
  9  MESSAGES       Display current message assignments
 10  AUTOOPS       Display SA OS/390 controlled autotasks
 11  ASSIST         Display current assist mode settings
 12  WTOR          Display outstanding replies
 13  GATEWAYS      Display gateway status and statistics
 14  SYSTEM        Display system parameters and status
 15  CF            Display coupling facility statuses
 16  CDS           Display couple data set statuses
 17  TRIGGERS      Display list of defined triggers
 18  SERVICE       Display list of defined schedules
 19  EVENTS        Display list of defined events
 20  TREE          Display parent/child hierarchy
 21  CONSOLES     Display console information
 22  SYSPLEX       Display sysplex information
 23  RESOURCES     Display list of resources

Command ==>
PF1=Help      PF2=End      PF3=Return      PF6=Ro11
               PF12=Retrieve

```

Figure 11. DISPAUTO Command Dialog Panel

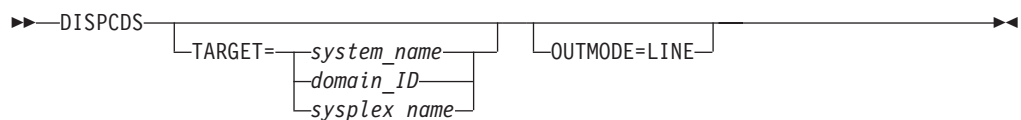
After the command selection number, you can specify appropriate parameters for the selected commands, for example, 10 TARGET=xxx, where xxx is the domain ID, or the system name of a system in the sysplex.

DISPCDS

Purpose

The DISPCDS command displays data about all the couple data sets in the sysplex.

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

- The DISPCDS command can only be used when SA OS/390 is initialized.
- DISPCDS is applicable only if the MVS system you are on, is a member of a sysplex.
- If the system was part of a sysplex but has left the sysplex for some reason, the status given using DISPCDS may be inaccurate.

Usage

- DISPCDS is used to see the couple data sets that SA OS/390 has detected, or to find out what their statuses are.
- This command gives the status of a sysplex resource from one system's point of view.

Examples

When you type `dispcds` a panel similar to the following is displayed:

```

AOFKX300          SA OS/390 - Command Dialogs          Line 1   of 33
Domain ID   = IPUFA  ----- DISPCDS -----          Date = 06/28/00
Operator ID = NETOP1                               Time = 17:58:48

System : AOCA      Interval  : 86400      OPNotify : 86400
Maxmsg  : 999999   Cleanup   : 60          Retry    : 255
Classlen: 956     Max CFlevel: 9      Couplexx : COUPLESA
SMREBLD : N/A     Max SMlevel: 9

                                Primary          Alternate

Couple data set : SYSPLEX
Dataset name    : SYS1.PXCFCD
VOLSER         : AOCXCP
FORMAT TOD     : 01/10/1999 21:19:36
MAXSYSTEM      : 8
MAXGROUP(PEAK) : 40 (27)
MAXMEMBER(PEAK) : 51 (12)

Command ==>
PF1=Help   PF2=End   PF3=Return          PF6=Ro11

```

Figure 12. DISPCDS Command Dialog Panel

- The System field shows the name of the system that issued the command.
- The Interval field shows the system failure detection interval in seconds. This interval is the amount of time XCF lets elapse without a status update before assuming that the system failed.
- The OPNotify field shows the number of seconds that XCF waits before notifying the operator of a potential system problem.
- The Maxmsg field shows the default value for the maximum amount of kilobytes of message buffer space. This default value is used when MAXMSG is not specified on SETXCF START commands.
- The Cleanup field shows the number of seconds that XCF waits for cleanup of members.
- The Retry field shows the default value for the retry limit. This value is used when the REPLY keyword is not specified on SETXCF START commands.

- The Classlen field shows the default length (in bytes) of messages allowed for a transport class. This value is used when CLASSLEN is not specified on the SETXCF START CLASSDEF command.
- The Max CFlevel shows the maximum CFLEVEL supported by this system. This system can connect to a coupling facility with a higher CFLEVEL than max CFlevel but would not be enabled to use any functions supported by the higher level coupling facility.
- The Couplexx field shows the couplexx parmlib member used for system ipl.
- The Dataset name field shows the name of the couple data set. The primary sysplex couple data set must be defined to XCF via the COUPLExx parmlib member. All other couple data sets can be defined via the COUPLExx parmlib member or the SETXCF command.
- The VOLSER field shows the volume on which the primary sysplex couple data set resides.
- The FORMAT TOD has the format mm/dd/yyyy hh:mm:ss
- The MAXSYSTEM field shows the maximum number of systems that the primary couple data set can support.
- The MAXGROUP (PEAK) field shows the maximum number of systems that the primary couple data set can support.
- THE MAXMEMBER (PEAK) field shows the maximum number of members per group that the primary couple data set can support in one group.

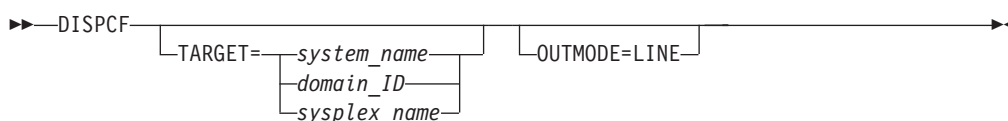
DISPCF

Purpose

The DISPCF command displays data about all the coupling facilities in the sysplex. For each coupling facility the structures and the paths can be displayed, and the coupling facility can be removed as long as one coupling facility is in the sysplex. For each coupling facility the following details are shown:

- Coupling facility name
- Coupling facility space utilization (total, used and free in %)
- Volatile (YES/NO)
- CFLEVEL

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

- The DISPCF command can only be used when SA OS/390 is initialized.
- DISPCF is applicable only if the MVS system you are on is a member of a sysplex.
- If the system was part of a sysplex but has left the sysplex for some reason, the status given using DISPCF may be inaccurate.

Usage

- DISPCF is used to see the coupling facilities SA OS/390 has detected, or to find out what their statuses are.
- This command gives the status of a sysplex resource from one system's point-of-view. Sysplex-level status is available using the Sysplex Support View window on the SA OS/390 workstation and the MVS DISPLAY commands that can be invoked from that window. For details on monitoring sysplex-level status refer to *System Automation for OS/390 User's Guide*.

Examples

In full-screen mode the output is a panel.

```

AOFKX200          SA OS/390 - Command Dialogs          Line 1    of 2
Domain ID  = IPSNO  ----- DISPCF -----          Date = 03/02/00
Operator ID = AFRANCK                                     Time = 12:03:29

Cmd:  D Drain CF  P Sender paths  S display structures
CMD  CF NAME          CF SPACE UTILIZATON INFORMATION
---  -----  -Total - -Used %- -Free %- -VOLATILE- -CFLEVEL-
    CF01          371.5 M  25.43   74.42   YES        8
    CF02          371.5 M   0.00   99.86   YES        8

Command ==>
PF1=Help    PF2=End      PF3=Return  PF6=Ro11
              PF9=Refresh PF12=Retrieve
  
```

Figure 13. DISPCF Command Dialog Panel

- The CMD field allows you to specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name, and press Enter. The following command codes are available:
 - D** Drains the selected coupling facility
 - P** Displays sender paths
 - S** Displays the structures of the selected coupling facility
- The CF NAME field shows the name of the coupling facility.
- The total field shows the total amount of storage available for assignment to structures in unit M.

- The Used % field shows the used storage in %.
- The Free % field shows the free storage in %.
- The VOLATILE field shows whether the facility space is volatile (YES or NO).
- The CFLEVEL shows the level of the coupling facility.

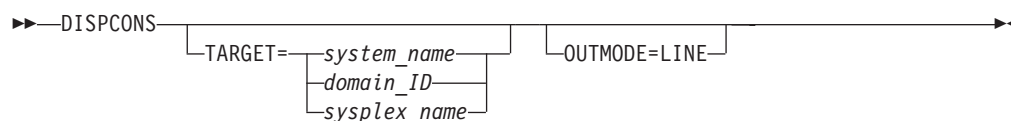
DISPCONS

Purpose

The DISPCONS command displays the following information for the target sysplex:

- The name of the master console
- WTO & WTOR buffer utilization
- Number of queued messages (replies) of various types
- Awaiting mounts
- Operator requests and list of consoles (name, status, authority, number of WTOR buffers, UD, device, system, ALTGRP, MSCOPE)

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPCONS command can only be used when SA OS/390 is initialized.

DISPCONS

Examples

```
AOFKX400                      SA OS/390 - Command Dialogs                      Line 1 of 14
Domain ID = SC47A              ----- DISPCONS -----                      Date = 07/08/99
Operator ID = NETOP1                                                  Time = 03:02:28

Sysplex . . . . . : WTSCPLX1                      Master Console . . . : M01
Message Buffer Usage : 0 / 1500                    Reply Buffer Usage . . : 0 / 999
Awaiting Replies . . : 4                          Eventual Action . . . : 0
Immediate Action . . : 34                          Awaiting Mounts . . . : 0
Critical Action . . : 38                          Operator Requests . . : 0

Display more info: D Details R requests
-----
Cmd  Console  Status  AUTH  NBUF  UD  Device  System  ALTGRP
-----
M01  MASTER    MASTER  0    N    08B0  SC47    MASTER
M02  INACTIVE  MASTER  N/A  Y    -none- --none-- MASTER
M03  ACTIVE    MASTER  0    N    09E0  SC55    MASTER
M04  INACTIVE  MASTER  N/A  N    -none- --none-- MASTER
M06  ACTIVE    MASTER  0    N    08B2  SC47    MASTER
M11  ACTIVE    MASTER  0    Y    28E0  SC52    MASTER
M12  ACTIVE    MASTER  0    N    0830  SC04    MASTER
M13  ACTIVE    MASTER  0    N    0831  SC04    MASTER
M14  INACTIVE  MASTER  N/A  N    -none- --none-- MASTER
X05  INACTIVE  MASTER  N/A  N    -none- --none-- MASTER
X07  INACTIVE  MASTER  N/A  N    -none- --none-- MASTER
X08  INACTIVE  MASTER  N/A  N    -none- --none-- MASTER
X09  INACTIVE  MASTER  N/A  N    -none- --none-- MASTER
X10  INACTIVE  MASTER  N/A  N    -none- SC55    MASTER

Command ==>
F1=Help      F2=End      F3=Return   F6=Roll
              F9=Refresh  F10=Next    F12=Retrieve
```

Figure 14. DISPCONS Command Dialog Panel

- The Sysplex field shows the name of the sysplex.
- The Message Buffer Usage field shows the limit of the number of WTO message buffers allowed outstanding.
- The Awaiting Replies field shows a decimal number representing the number of messages awaiting replies.
- The Immediate Action field shows a decimal number representing the number of outstanding immediate action messages (with descriptor codes 1 or 2). If the number is greater than 99999, asterisks appear in this field.
- The Critical Action field shows a decimal number representing the number of outstanding critical eventual action messages (with descriptor code 11). If the number is greater than 99999, asterisks appear in this field.
- The Master Console field shows the name of the master console.
- The Reply Buffer Usage field shows the limit of the number of WTOR message buffers allowed outstanding. The maximum value of yyyy is specified by the RMAX parameter in the CONSOLxx parmlib member.
- The Eventual Action field shows a decimal number representing the number of outstanding eventual action messages (with descriptor code 3). If the number is greater than 99999, asterisks appear in this field.
- The Awaiting Mounts field shows a decimal number representing the number of outstanding mount requests.

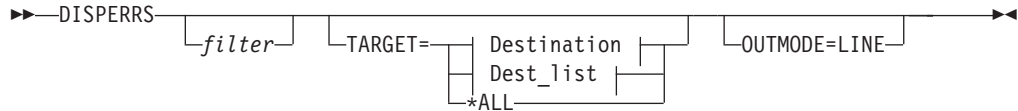
- The Operator Requests field shows a decimal number representing the number of outstanding requests for operator intervention.
- The CMD field lets you specify the command codes shown on the panel. Type the appropriate letter next to the resource name, and press Enter. The following command codes are available:
 - D** Displays details for the console
 - R** Displays the actual requests for the console
- The Console field shows the name of the console as specified in the CONSOLxx parmlib member.
- The Status field shows the status of the console. The following values can occur:
 - H** Hardcopy log. This condition will be indicated only when the console is active on the system where the command processes.
 - A** Active console.
 - AP** In the process of becoming an active console. This condition will be indicated only when the console is active on the system where the command is processing.
- The AUTH field shows which commands may be entered from this console. The following values can occur:
 - ALL** Any INFO SYS, IQ or CONS command may be entered from this console.
 - CONS** INFO commands and any commands from the console command group may be entered from this console.
 - INFO** Any command from the informational command group may be entered from this console.
 - IO** INFO commands and any commands from the I/O Control command group may be entered from this console.
 - MASTER**
The specified console is authorized to enter any operator command.
 - NONE**
This console has no command authority.
 - SYS** INFO commands and any commands from the system control command group may be entered from this console.
- The NBUF field shows the number of WTO message buffers currently queued to this console. If nnnn is greater than 9999, asterisks (***) appear in this field.
- The UD field shows whether this console is receiving messages with the UD attribute.
- The Device field shows the name of the console as specified in the CONSOLxx parmlib member. This console can be a subsystem allocatable console.
- The System field shows the device number of the active console. This field will be omitted if the console is not active on any system, unless U is specified as the operand.
- The ALTGRP field shows the alternate group defined for this console.

DISPERRS

Purpose

The DISPERRS command displays information about resources for which errors have been recorded in the status file.

Syntax



Destination:



Dest_list:



Parameters

filter

Is the filter to be applied for the output. Only resource names that match the filter criteria are displayed. Wildcard is supported. The filter consists of the major name and, optionally, of a minor name separated by a dot, for example, CICS*.TRANS* , or *.*CEMT.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPERRS command can only be used when SA OS/390 is initialized.

Examples

When you type disperrs you see a panel similar to the following:

System	Resource	Type	Thrs	No	Date	Time
KEY6	AOFIPLDT	CONTROL		8	11/06/97	06:00
KEY6				7	10/27/97	08:18
KEY6				6	10/24/97	06:37
KEY6				5	10/15/97	21:31
KEY6				4	10/10/97	11:17
KEY6				3	10/07/97	09:20
KEY6				2	09/26/97	14:19
KEY6				1	09/02/97	15:00
KEY6	LLA	SUBSYSTEM		1	10/15/97	12:59
KEY6	LOGREC	MVSESA		1	10/01/97	12:50
KEY6	MVSDUMP	MVSESA	FREQ	4	10/15/97	14:59
KEY6				3	10/15/97	14:59
KEY6				2	10/15/97	14:59
KEY6				1	10/15/97	14:59
KEY6	SMFDUMP	MVSESA		1	10/15/97	18:34
KEY6	SYSLOG	MVSESA	CRIT	10	11/07/97	10:05
KEY6				9	11/05/97	18:03
KEY6				8	11/05/97	05:59
KEY6				7	11/03/97	07:07
KEY6				6	10/31/97	15:45
KEY6				5	10/25/97	13:20
KEY6				4	10/24/97	08:16

Command ==>
 PF1=Help PF2=End PF3=Return PF6=Roll
 PF8=Forward PF9=Refresh PF12=Retrieve

Figure 15. DISPERRS Command Dialog Panel

- The System field shows the name of the system where the resource is defined.
- The Resource field shows the name of the resource.
- The Type field shows the type of resource.
- The Thrs field shows the type of threshold that has been violated. This is either CRIT (critical), FREQ (frequent), or INFR (infrequent).
- The No field shows the sequence number assigned to the error.
- The Date and Time fields show the date and time that the error occurred.

DISPEVT

Purpose

The DISPEVT command displays relationships between an event and the related resources. DISPEVT shows all the resources that use the event.

Syntax

```

▶▶ DISPEVT event [TARGET= system_name [domain_ID [sysplex_name]] [OUTMODE=LINE]

```

DISPEVT

Parameters

event

Specifies the name of the event.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9. Note that if you specify a sysplex name as a target, then this is translated to the next system that is available in the sysplex and the DISPEVT command will be processed there.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPEVT command can only be used when SA OS/390 is initialized.

Usage

The DISPEVT command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the according slave command.

If you specify OUTMODE=LINE, then specifying *event* becomes mandatory.

The DISPEVT command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Examples

When you type `dispevt b000s100`, the following panel is displayed:

```

AOFLE000          SA OS/390 - Command Dialogs          Line 1 of 4
Domain ID = IPUF9  ----- DISPEVT -----          Date = 11/26/99
Operator ID = NATOP1          Sysplex = KEY1PLEX          Time = 15:29:27

Event      ==> B000S100
System     ==> KEY3          System name, domain id or sysplex name
Description . . : Start cond 1 Trigger6 batch job end
Unset condition. : UP

Resource   Type  System  Trigger  Status
-----
TRGG006AA10  APL  KEY1    TRIGGER6  SET
TRGG006AA10  APL  KEY2    TRIGGER6  UNSET
TRGG006AA10  APL  KEY3    TRIGGER6
TRGG006AA10  APL  KEY4    TRIGGER6  SET

Command ==>
PF1=Help    PF2=End          PF3=Return      PF6=Roll
              PF9=Refresh      PF12=Retrieve

```

Figure 16. DISPEVT Command Dialogs Panel - Result

- The Event field shows the name of the event. You can overwrite the event to initiate a new display.
- The System field shows the name of the system where the command is executed. You can overwrite the system name to initiate a new display.
- The Description field shows the description of the event.
- The Unset condition field shows the status that an application must have to reset an event.
- The Resource field shows the name of the resource where the event is defined.
- The Type field shows the type of the resource.
- The System field shows the name of the system where the resource is defined.
- The Trigger field shows the trigger that the resource is linked to.
- The Status field shows the status of the event for that particular resource. It can contain the following values:

SET The event is set. It is shown in white.

UNSET The event is unset. It is shown in red.

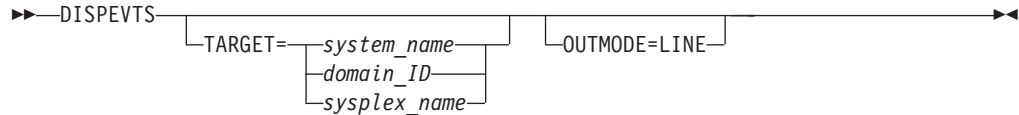
If the status of the event is neither SET nor UNSET, then the event is in an unknown state. This is treated as UNSET.

DISPEVTS

Purpose

DISPEVTS displays all events defined in a sysplex. From the full-screen panel you can set or reset an event or display the related resources of an event.

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9. Note that if you specify a sysplex name as a target, then this is translated to the next system that is available in the sysplex and the DISPEVTS command will be processed there.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPEVTS command can only be used when SA OS/390 is initialized.

Examples

When you type `dispevts`, a panel which shows all events defined in the sysplex, is displayed:

```

AOFLE100          SA OS/390 - Command Dialogs          Line 1   of 38
Domain ID   = IPUF9   ----- DISPEVTS -----         Date = 11/26/99
Operator ID = NETOP1          System = AOC9              Time = 15:00:20

Cmd:  D show related resources      S set/reset event

Cmd Event      Unset  Description
-----
  BATCHSTP    NONE   Batch jobs B000P100,P200,P300
  BATCHSTR    NONE   Batch jobs B000S100,S200,S300
  B000P100    DOWN   Stop cond 1 Trigger6 (batch job end)
  B000P200    DOWN   = P1
  B000P300    DOWN   Stop cond 2 Trigger6 (batch job 1 min)
  B000S100    UP     Start cond 1 Trigger6 batch job end
  B000S200    UP     = P1
  B000S300    UP     Start cond 2 Trigger 6 batch end (1 min)
  DRWEVT1     UP     unset UP
  DRWEVT13    NONE   unset none
  DRWEVT14    NONE   unset none
  DRWEVT15    NONE   unset none

Command ==>>
PF1=Help      PF2=End      PF3=Return   PF6=Roll
PF8=Forward   PF9=Refresh  PF12=Retrieve

```

Figure 17. DISPEVTS Command Dialogs Panel

- The CMD field lets you specify the command codes shown on the panel. Type the appropriate letter next to the resource name and press Enter. The following command codes are available:
 - D** Shows the related resources.
 - S** Sets or resets the event.
- The Event field shows the name of the event.
- The Unset field shows the status that an application must have to reset an event. The following values can occur:
 - START** Unsets the event when the resource is being started.
 - UP** Unsets the event when the resource becomes available.
 - DOWN** Unsets the event when the resource becomes unavailable.
- If nothing is specified the event will not be unset.
- The Description field shows the description of the event.

Type S next to an event and press Enter. The following panel is displayed:

DISPEVTS

```
A0FLE110          SA OS/390 - Command Dialogs
Domain ID   = IPSNO          ----- INGEVENT -----   Date = 03/02/00
Operator ID = NETOP1        Sysplex = KEY1PLEX           Time = 12:35:26

Event . . . . . : EVTSTOP
Description . . . : Shutdown event
Unset condition . : DOWN

Specify/revise the following parameters and then press enter:

Function ==>          SET or UNSET
Resource ==>          Resource name

System ==>           System name, domain ID or sysplex name

Command ==>
F1=Help      F2=End      F3=Return          F6=Roll
F12=Retrieve
```

Figure 18. DISPEVTS Command Dialogs Panel - Action

- The Event field shows the name of the event.
- The Description field shows the description of the event.
- The Unset condition field shows the status that an application must have to reset an event.
- The Function field shows the action to be performed. It can be overwritten.
- The Resource field shows the name of the application that is the only affected application when the command is executed. It can be overwritten.
- The System field shows the name of the target system where the processing takes place. It can be overwritten. You only need to specify the name of the target system if you want to address a remote sysplex.

DISPFLGS

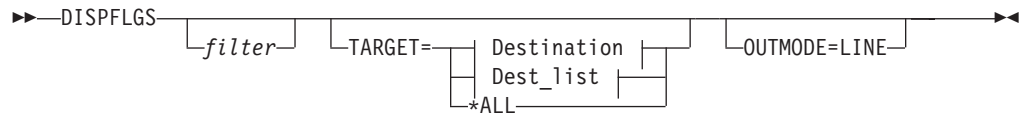
Purpose

The DISPFLGS command shows all resources that have explicit agent automation flags defined for them, what those flags are, and what the effective automation flags resulting from them are.

Information for msys for Operations users

The DISPFLGS command shows whether msys for Operations functions are enabled (Recovery flag set to Y), or disabled (Recovery flag set to N).

Syntax



Destination:



Dest_list:



Parameters

filter

Is the filter to be applied for the output. Only resource names that match the filter criteria are displayed. Wildcard is supported. The filter consists of the major name and, optionally, of a minor name separated by a dot, for example, CICS*.TRANS* , or *.*CEMT. Specify * to view major resources. To view minor resources specify xyz.*..

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPFLGS command can only be used when SA OS/390 is initialized.

Usage

Subsystems which are not shown have no explicit automation flags set for them and have effective flags defined in the SUBSYSTEM entry.

Examples

When you type dispflgs within SA OS/390 you see a panel similar to the following:

DISPFLGS

```

AOFKAAU          SA OS/390 - Command Dialogs          Line 1   of 34
Domain ID   = IPUF9          ----- DISPFLGS -----          Date = 11/26/99
Operator ID = NETOP1                                     Time = 15:52:00
System = AOC9
Resource      Actual      Effective
              A I S R D RS  A I S R D RS  Settings
-----
DEFAULTS     Y Y Y Y Y Y  Y Y Y Y Y Y  - No explicit setting
MVSESA       Y - - Y - -  Y Y Y Y Y Y  N Turned off
SUBSYSTEM    Y Y Y Y Y Y  Y Y Y Y Y Y  E Consult exit
APPC         Y Y Y Y Y Y  Y Y Y Y Y Y  Y Turned on
ASCH         Y Y Y Y Y Y  Y Y Y Y Y Y  ? Error
BLSJPRMI     Y Y Y Y Y Y  Y Y Y Y Y Y
FLGF000AU00  N - - - Y -  N N N N N N  Flags
FLGF000EX00  E E E E E E  E E E E E E
FLGF000IN00  Y N Y Y Y Y  Y N Y Y Y Y  A Automation
FLGF000RC00  Y Y Y N Y Y  Y Y Y N Y Y  I Initial start
FLGF000RS00  Y Y Y Y Y N  Y Y Y Y Y N  S Start up
FLGF000SH00  Y Y Y Y N Y  Y Y Y Y N Y  R Recovery
FLGF000ST00  Y Y N Y Y Y  Y Y N Y Y Y  D Shut down
FLGF000XX00  - - - - Y -  Y Y Y Y Y Y  RS Restart

Command ==>
PF1=Help      PF2=End      PF3=Return   PF6=Ro11
               PF8=Forward  PF9=Refresh  PF12=Retrieve
    
```

Figure 19. DISPFLGS Command Dialog Panel of SA OS/390

When you type dispflgs within msys for Operations you see a panel similar to the following:

```

AOFKAAU          msys - Command Dialogs          Line 1   of 8
Domain ID   = IPUFD          ----- DISPFLGS -----          Date = 03/02/01
Operator ID = DREWS                                     Time = 15:19:25
System = AOCD
Resource      Actual      Effective
              A I S R D RS  A I S R D RS  Settings
-----
DEFAULTS     Y - - - - -  Y Y Y Y Y Y  - No explicit setting
MVSESA       - - - - - -  Y Y Y Y Y Y  N Turned off
CDS          - - - N - -  Y Y Y N Y Y  E Consult exit
LOG          - - - Y - -  Y Y Y Y Y Y  Y Turned on
LOGGER       - - - N - -  Y Y Y N Y Y  ? Error
WTO          - - - Y - -  Y Y Y Y Y Y
XCF          - - - Y - -  Y Y Y Y Y Y  Flags
SUBSYSTEM    - - - - - -  Y Y Y Y Y Y
              A Automation
              I Initial start
              S Start up
              R Recovery
              D Shut down
              RS Restart
    
```

Figure 20. DISPFLGS Command Dialog Panel of msys for Operations

- The Resource field shows the name of the resource. Names shown indented one character to the right represent minor resources, for example, MVSESA.DUMP as shown below. If the minor resources MVSESA.DUMP.ONE, MVSESA.DUMP.TWO, and MVSESA.DUMP.TWO.THREE existed, the Resource column would look like the example below:

```

MVSESA
  DUMP
    ONE
    TWO
    THREE
    
```


Major resources correspond to subsystems and minor resources correspond to specific situations or resources within a major resource. By default, automation flags for minor resources are derived from their major resources.

The first three entries are always DEFAULTS, MVSESA, and SUBSYSTEM. The other entries are sorted in alphabetical order.

- The Actual flag settings are the flags that have been set for the resource.
- The Effective flag settings are the flags that are in effect for the resource.

The columns are headed with an abbreviation of the name of the automation flag.

The value of each flag is:

- There is no explicit setting
- N The flag is turned off
- E A user exit is invoked whenever SA OS/390 checks the flag
- Y The flag is turned on
- ? There is an error

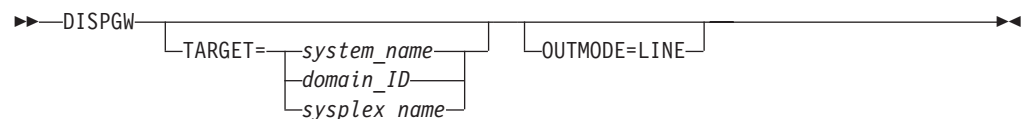
Refer to *System Automation for OS/390 Customizing and Programming* for further information on automation flags and minor resources.

DISPGW

Purpose

DISPGW displays gateway definitions, statuses, and statistics.

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPGW command can only be used when SA OS/390 is initialized.

Usage

There are three related panels which display gateway information. Use PF11 and PF10 to scroll through them.

Examples

When you type dispgw you see a panel similar to the following:

```

A0FK2GL                SA OS/390 - Command Dialogs          Line 1   of 11
Domain ID = IPUF9      ----- DISPGW -----              Date = 12/17/97
Operator ID = NETOP1                                     Time = 15:32:36
System = AOC9                                           Focal Point = IPSFM

Domain  Sdfroot      Status      Description
-----
IPSFM   KEY3         ACTIVE     CONNECTION TO IPSFM (KEY3)
IPSFN                                     NOT STARTD CONNECTION TO IPSFN (KEY4)
IPSF0                                     NOT STARTD CONNECTION TO IPSFO (KEY5)
IPSF6                                     NOT STARTD CONNECTION TO IPSF6 (KEY6)
IPUFA                                     NOT STARTD CONNECTION TO IPUFA (AOCA)
IPUFB                                     NOT STARTD CONNECTION TO IPUFB (AOCB)
IPUFC                                     NOT STARTD CONNECTION TO IPUFC (AOCC)
IPUFD                                     NOT STARTD CONNECTION TO IPUFD (AOCD)
IPUFM   AOC7         ACTIVE     CONNECTION TO IPUFM (AOC7)
IPUF8                                     NOT STARTD CONNECTION TO IPUF8 (AOC8)
IPVFH                                     NOT STARTD CONNECTION TO IPVFH (TSCF2)

Command ==>
PF1=Help  PF2=End    PF3=Return  PF6=Ro11
PF9=Refresh PF11=Right PF12=Retrieve
  
```

Figure 21. DISPGW Command Dialog Panel 1

- The Domain field shows the domain ID of the system to which a gateway has been defined, known as the *gateway domain*.
- The Sdfroot field shows the system name of the gateway domain.
- The Status field shows the current status of the gateway.

The following are statuses that may occur for gateways and NNT sessions:

ACTIVE

The connection has been made.

AUTHORITY

The user is not authorized. Message: DSI755I.

BAD DOMAIN

The specified domain is unknown. Message: DSI031I.

BAD EVENT

G Wait ended by operator GO

E Wait statement incorrect

BAD PWMASK

The security software rejected a new password. Message: DSI754I.

CMD ERROR

A cross-domain command was rejected. Messages: DSI002I CNM421I.

DS NTALLOC

The NetView password data set is not allocated. Message: AOF088I.

DUP LOGON

The specified operator ID is already logged on. Message: DSI068I.

EXP PASSWD

The specified password has expired. Messages: DSI402I DSI756I.

GETPW UPD

An error occurred updating the RACF[®] password.

GETPW ERR

An error occurred using the GETPW command.

ID REVOKED

The user ID has been revoked. Message: DSI679I.

INACTIVE

The connection cannot be made. One the following messages has occurred: DSI008I, DSI015A, DSI027I.

INV LOGON

The logon attempt is invalid. Message: DSI029I.

INV OPID

The specified operator ID is invalid. Messages: DSI021A, DSI077A, DSI400A.

INV PASSWD

The specified password is invalid. Messages: DSI022A, DSI401A.

NOT STARTD

The domain has not been started by Gateway initialization.

PROF ERR

The specified user profile has an error or is invalid. Messages: DSI023A, DSI057A, DSI059A, DSI060A, DSI061A, DSI062A.

PW NTFND

The password was not found by the GETPW command. Message AOF089I.

SAF FAIL

A SAF related failure occurred. Messages: DSI403I, DSI405I.

SESSFAL

The attempt to start a session with the domain ended with a VTAM® request failure. Refer to DSI046I\$ in the netlog for details.

STARTING

The session is currently being started by gateway initialization.

TERM SESS

The session has been terminated. Messages: DSI055I, DSI145I.

TIMEOUT

A message has not been received in the time specified (XDOM).

- The Description field shows a description of the gateway domain, obtained from the automation control file.

If you press PF11 on this panel, a panel similar to the following is displayed:

DISPGW

```

A0FK2GLR          SA OS/390 - Command Dialogs          Line 1 of 11
Domain ID = IPUF9  ----- DISPGW -----             Date = 11/26/99
Operator ID = NETOP1                               Time = 16:01:19
System = AOC9                                       Focal Point = IPUFM
Domain   via     Direct Inb/Outb Stat  Adjacent  Alt Adj  Product
-----
IPSFM   IPSFM   ACTIVE   ACTIVE
IPSFN   IPSFN   INACTIVE  ACTIVE
IPSF0   IPSF0   INACTIVE  ACTIVE
IPSFp   IPSFP   INACTIVE  ACTIVE
IPUFA   IPUFA   INACTIVE  ACTIVE
IPUFB   IPUFB   INACTIVE  ACTIVE
IPUFC   IPUFC   INACTIVE  ACTIVE
IPUFD   IPUFD   INACTIVE  ACTIVE
IPUFM   IPUFM   ACTIVE   ACTIVE
IPUF8   IPUF8   INACTIVE  SESSFAIL
IPVFH   IPVFH   INACTIVE  INV OPID
-----
SA OS/390 2.1
SA OS/390 2.1

Command ==>
PF1=Help  PF2=End  PF3=Return  PF6=Ro11
PF9=Refresh  PF10=Left  PF11=Right  PF12=Retrieve

```

Figure 22. DISPGW Command Dialog Panel 2

- The Domain field is the same as on the previous panel.
 - The Via field shows the domain through which this system is communicating with the gateway domain.
 - The Direct Inb/Outb Stat field shows the inbound and outbound NetView sessions from this domain to the gateway domain. If this domain communicates with the gateway through another domain, the status is NO DIRECT.
 - The Adjacent field shows the adjacent domain through which this gateway is connected.
 - The Alt Adj field shows the alternate adjacent domain through which this gateway is connected.
 - The Product field shows the automation product on the gateway domain.
- If you press PF11 on this panel, a panel similar to the following is displayed:

AOFK2GLC		SA OS/390 - Command Dialogs				Line 1 of 11	
Domain ID = IPUF9		----- DISPGW -----				Date = 12/17/97	
Operator ID = NETOP1						Time = 15:36:56	
System = AOC9						Focal Point = IPSFM	
Domain	Req to/from	Last out/in		INT to/from	Invalid	Loop back	
IPSFM	148 71	DOMSTA	DOMSTA	0 0	0	0 0	
IPSFN	20 0	DOMCON		0 0	0	0 0	
IPSF0	19 0	DOMCON		0 0	0	0 0	
IPSFp	20 0	DOMCON		0 0	0	0 0	
IPUFA	28 0	DOMCON		0 0	0	0 0	
IPUFB	23 0	DOMCON		0 0	0	0 0	
IPUFC	27 0	DOMCON		0 0	0	0 0	
IPUFD	25 0	DOMCON		0 0	0	0 0	
IPUFM	59 97	DOMSTA	DOMSTA	0 0	0	0 0	
IPUF8	22 0	DOMCON		0 0	0	0 0	
IPVFH	0 0			0 0	0	0 0	

Command ==>
PF1=Help PF2=End PF3=Return PF6=Ro11
PF9=Refresh PF10=Left PF12=Retrieve

Figure 23. DISPGW Command Dialog Panel 3

- The Domain field is the same as on the previous panel.
- The Req to/from field shows the number of gateway requests to the gateway domain from this domain, and from the gateway domain to this domain.
- The Last out/in field shows the first 8 bytes of the last gateway request from this domain to the gateway domain, and the last gateway request from the gateway domain to this domain.
- The Int to/from field shows the number of gateway requests between the gateway domain and the other domains that were routed through this domain.
- The Invalid field shows the number of requests to this domain from the gateway domain that were invalid.
- The Loop back field shows the number of requests from this domain to the gateway domain that looped back to this domain.

DISPINFO

Purpose

DISPINFO displays detailed information about a specified subsystem.

If the subsystem is a CICS® or IMS subsystem (running locally) that is being controlled by the CICS automation feature or the IMS automation feature, a PF10 option is available to give access to CICS or IMS related information. See the examples below for more details.

Syntax

```

▶▶—DISPINFO—subsystem—┬─TARGET=—system_name—┬─OUTMODE=LINE—┬─▶
                        │—domain_ID—┬─┘
                        │—sysplex_name—┘
  
```

Parameters

subsystem

The name of the subsystem you want information on. If you do not specify a subsystem, a menu is displayed on which you can specify the subsystem.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPINFO command can only be used when SA OS/390 is initialized.

Examples

Type `dispinfo STDT000AN1X` and press Enter. The DISPINFO panel with the VTAM subsystem data is displayed.

```

AOFKINFO          SA OS/390 - Command Dialogs          Line 1 of 106
Domain ID = IPUFA  ----- DISPINFO -----          Date = 06/27/00
Operator ID = NETOP1                               Time = 15:04:59

Subsystem ==>  STDT000AN1X System ==>  AOCA          System name, domain ID
                                                    or sysplex name
Subsystem      : STDT000AN1X on System : AOCA
Description    : Multiple parents (AN10, AN20)
Class         : STDT0AN
Job Name      : T000AN1X
Job Type      : MVS

Current status : UP
  Last Monitored : 14:06:30 on 06/27/00
  Last Changed  : 11:17:48 on 06/27/00
  Last Message  :
    AOF571I 11:17:48 : STDT000AN1X SUBSYSTEM STATUS FOR JOB T000AN1X
    IS UP - UP MESSAGE RECEIVED

Monitor        : AOFAJMON (default)
  Monitor Status : ACTIVE

  Monitor Interval : None specified

ARM Element Name : None
Association      : Primary
WLM Resource Name : None
Command Prefix  : None

Flags - Automation : Yes
  Init Start : Yes
  Start      : Yes

Command ==>
PF1=Help  PF2=End    PF3=Return  PF4=INGINFO          PF6=Ro11
          PF8=Forward PF9=Refresh          PF12=Retrieve

```

Figure 24. DISPINFO Command Dialog Panel

For the subsystem and the system fields, you can override the values and refresh the display. You can also scroll forward and backward.

For further details about the fields on the panel, refer to the customization dialog and to *System Automation for OS/390 Defining Automation Policy*.

When obtaining automation flag settings, any user exits are not invoked.

To see the default settings use a subsystem name of DEFAULTS or SUBSYSTEM.

PF4 lets you toggle to the automation manager command INGINFO.

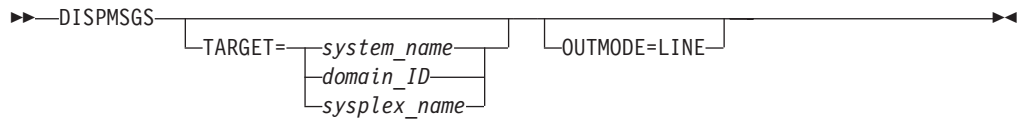
DISPMSGS

Purpose

The DISPMSGS command displays which automation operators receive each automated message.

DISPMSGGS

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPMSGGS command can only be used when SA OS/390 is initialized.

Examples

Type dispmsggs on a command line to display the Authorized Message Receivers panel:

```
AOFK2SM          SA OS/390 - Command Dialogs          Line 1 of 17
Domain ID = IPSNO ----- DISPMSGGS -----          Date = 06/27/00
Operator ID = NETOP1      System _ KEY3              Time = 15:05:53

Message   Primary Receivers          Secondary Receivers
-----
'*AOF01'  AUTWRK01 AUTGSS  AUTSYS
          AUTOBASE
'*AOF02'  AUTWRK02 AUTGSS  AUTSYS
          AUTOBASE
'*AOF03'  AUTWRK03 AUTGSS  AUTSYS
          AUTOBASE
'*AOF04'  AUTWRK04 AUTGSS  AUTSYS
          AUTOBASE
'*AOF05'  AUTWRK05 AUTGSS  AUTSYS
          AUTOBASE
'AOF*'    AUTMSG  AUTSYS  AUTOBASE
'IEA*'    AUTREC  AUTSYS  AUTOBASE
'IEE600I  AUTSYS
'IEE889I  AUTSYS  AUTOBASE
'IEE*'    AUTREC  AUTSYS  AUTOBASE
'IOS*'    AUTREC  AUTSYS  AUTOBASE
'*'       AUTLOG  AUTSYS  AUTOBASE

Command ==>
PF1=Help    PF2=End          PF3=Return    PF6=Roll
PF9=Refresh PF12=Retrieve
```

Figure 25. Authorized Message Receivers Panel

The information contained on the panel is:

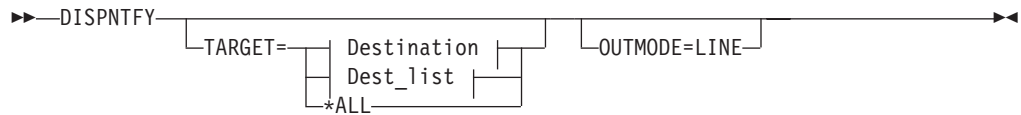
- The Message field shows the message or message prefix.
- The Primary Receivers field shows the automation operators, identified by their NetView IDs. The Primary Receivers column lists automation operators that can receive the messages listed beside their names. These messages go to the first automation operator listed in the Primary Receivers column that is active.
- The Secondary Receivers field shows the Alternate automation operators, identified by their NetView IDs. Secondary Receivers receive copies of the messages listed beside their names.

DISPNTFY

Purpose

The DISPNTFY command displays a list of all defined notification operators, whether they are logged on, whether they are receiving messages, and a description of the operator.

Syntax



Destination:



Dest_list:



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPNTFY command can only be used when SA OS/390 is initialized.

DISPNTFY

Usage

Use the INGNTFY QUERY command dialog to find out which classes of message each operator is receiving.

Examples

When you type dispntfy you see a panel similar to the following:

```
AOFKAANT          SA OS/390 - Command Dialogs          Line 1 of 4
Domain ID = IPSNO ----- DISPNTFY ----- Date = 02/11/00
Operator ID = NETOP1                                     Time = 12:48:04
```

Operator	System	Log	Rcv	Description
NETOP1	KEY3	N	N	
NETOP2	KEY3	Y	N	
SYSOP	KEY3	Y	Y	MVS CONSOLE
NETOP3	KEY3	N	N	

```
Command ==>
PF1=Help      PF2=End          PF3=Return      PF6=Ro11
                PF9=Refresh      PF12=Retrieve
```

Figure 26. DISPNTFY Command Dialog Panel

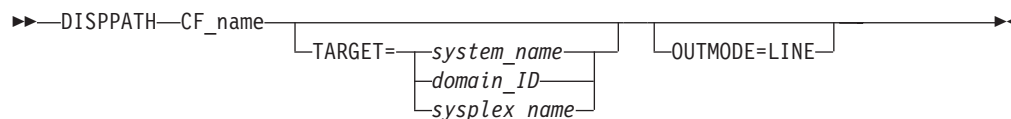
- The Operator field shows the operator ID. It is not necessarily defined to NetView.
- The System field shows the name of the system where the operator is defined.
- The Log field shows a Y if the operator was logged on when the command dialog was started, and shows an N if the operator was not logged on.
- The Rcv (Receive) field shows a Y if the operator was receiving messages when the command dialog was started, and shows an N if the operator was not receiving messages.
- The Description field shows a description of the operator, from either the automation control file or the INGNTFY command dialog.

DISPPATH

Purpose

The DISPPATH command displays the paths from the connected systems to the specified coupling facilities in the sysplex. For each path the status is displayed.

Syntax



Parameters

CF_name

The name of the coupling facility for which the paths should be displayed

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPPATH command can only be used when SA OS/390 is initialized.

Examples

```

AOFKX220          SA OS/390 - Command Dialogs          Line 1 of 8
Domain ID = IPSNN ----- DISPPATH -----          Date = 07/07/99
Operator ID = HUT                                     Time = 11:02:53

CFname ==> CF01

  SYSTEM  CHIPID  Status
  -----  -----  -----
KEY1     A5      NOT OPERATIONAL
          A9      ONLINE
KEY2     A5      NOT OPERATIONAL
          A9      ONLINE
KEY3     A5      NOT OPERATIONAL
          A9      ONLINE
KEY4     A5      NOT OPERATIONAL
          A9      ONLINE

Command ==>
PF1=Help  PF2=End  PF3=Return  PF6=Roll
           PF9=Refresh  PF12=Retrieve
  
```

Figure 27. DISPPATH Command Dialog Panel

- The CFname field shows the name of the coupling facility for which the paths should be displayed. It can be overtyped to show another display.

DISPPATH

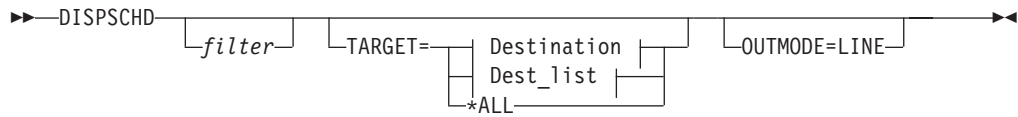
- The System field shows the name of the system.
- The CHIPID field shows the channel through which the system is connected to the coupling facility.
- The Status field shows the status of the connectivity channel.

DISPSCHD

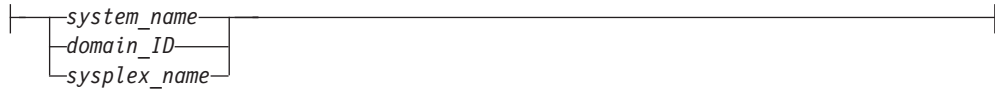
Purpose

DISPSCHD displays all resources with scheduled override settings of the automation flags. Scheduled overrides are specified using the customization dialog. They are specific times during which automation is turned off for a particular flag and resource.

Syntax



Destination:



Dest_list:



Parameters

filter

Is the filter to be applied for the output. Only resource names that match the filter criteria are displayed. Wildcard is supported. The filter consists of the major name and, optionally, of a minor name separated by a dot, for example, CICS*.TRANS* , or *.*CEMT. Specify * to view major resources. To view minor resources specify xyz.*..

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPSCHD command can only be used when SA OS/390 is initialized.

Examples

When you type dispschd you see a panel similar to the following:

```

AOFKAASC          SA OS/390 - Command Dialogs          Line 1   of 6
Domain ID   = IPUF9  ----- DISPSCHD -----          Date = 12/17/97
Operator ID = NETOP1                               Time = 15:47:07

System  Resource  Fl Day      Start   - End      Flags
-----  -
AOC9    CICST      A WEEKDAY  07:30:00 - 04:00:00  A  Automation
AOC9                                THURSDAY  03:00:00 - 05:00:00  I  Initial Start
AOC9                                I   *      12:00:00 - 13:00:00  S  Start up
AOC9                                R WEEKEND  18:00:00 - 19:00:00  R  Recovery
AOC9                                RS  *      12:00:00 - 13:00:00  D  Shut down
AOC9    MVSDUMP   R   *      07:00:00 - 18:00:00  RS Restart

Command ==>
PF1=Help    PF2=End      PF3=Return   PF6=Ro11
              PF9=Refresh  PF12=Retrieve
  
```

Figure 28. DISPSCHD Command Dialog Panel

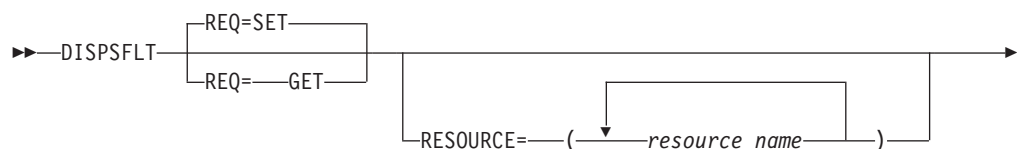
- The System field shows the name of the system where the resource is defined.
- The Resource field shows the name of resources which have NOAUTO specified in the automation control file. The resources are displayed in the order in which they occur in the automation control file.
- The Fl (Flag) field shows an abbreviation of the automation flag name.
- The Day field shows the day or days on which automation is turned off. Valid values are:
 - Monday through Sunday
 - * (for every day)
 - Weekend
 - Weekday
- The Flags field shows the names of the automation flags and their abbreviations.

DISPSFLT

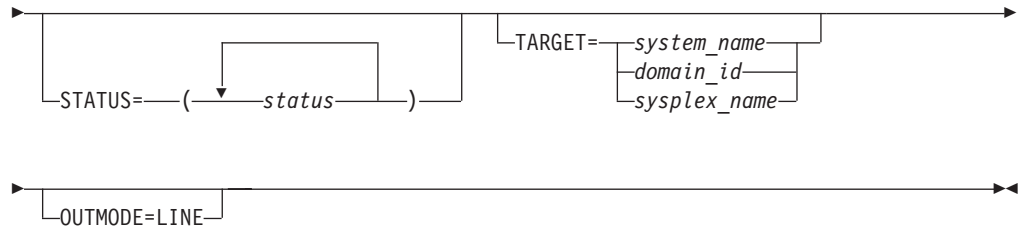
Purpose

The DISPSFLT command lets you set up view filters for DISPSTAT.

Syntax



DISPSFLT



Parameters

REQ

Specifies the type of the request. It can be one of the following:

SET Specifies to set new filter settings

GET Specifies to return the current filter settings. This is the default.

RESOURCE

Specifies the name of the resource(s) to be displayed. The format is *resource name*. It can be a list of names. Wildcards are supported. If you specify only one resource you need not put it in parentheses.

STATUS

Specifies the resource statuses that you want to display. If more than one is specified, separate the statuses with a blank. The status or list of statuses must be inside single quotation marks. If '-', or '\' is used, all statuses except the ones you specify are displayed.

There are some predefined lists:

STATUS=*

Lists all resource statuses.

STATUS=1

Lists all resources that are currently UP or ENDED.

STATUS=2

Lists all resources that are in a 'normal' status (DOWN, STARTED, UP, AUTOTERM, AUTODOWN, ACTIVE, ENDED, ENDING, RESTART, EXTSTART, RUNNING).

STATUS=3

Lists all resources that are in a 'down' status (DOWN, INACTIVE, RESTART, AUTODOWN, CTLDOWN, STOPPED, BROKEN, MOVED, FALLBACK).

STATUS=4

Lists all resources that are in a start transition status (RESTART, STARTED, STARTED2, ACTIVE, RUNNING, EXTSTART).

STATUS=5

Lists all resources that are in a stop transition status (AUTOTERM, ENDING, STOPPING, ABENDING, BREAKING).

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

If no parameters are specified, the filter settings will be used.

If a subsystem name is specified, but no other parameters, for example, TARGET=, are specified, all subsystems of this name found on any system will be displayed.

Usage

The DISPSFLT command can also be used when SA OS/390 is **not** initialized.

The DISPSFLT command lets you set filter options at operator logon from within the operator’s initial clist.

Examples

If the operator is responsible for all resources starting with xyz, DISPSFLT will be called with the parameter RESOURCE=xyz. If you type dispsflt a panel similar to the following is displayed:

```

AOFKSTA3          SA OS/390 - Command Dialogs
Domain ID = IPSNO  ----- DISPSFLT -----      Date = 06/27/00
Operator ID = NETOP1                               Time = 15:08:40

Resources      ( *, *esour*, resource or jobname )
*

Statuses      ( *, status or choice, leading ~ or \ negates)
RESTART STARTED STARTED2 ACTIVE RUNNING EXTSTART

Precoded:  1 All resources that are currently UP or ENDED
           2 All resources that are in a normal status
           3 All resources that are in a down status
           4 All resources that are in a start transition state
           5 All resources that are in a stop transition state

Target Systems ( system name , domain ID , sysplex name or * )
KEY3

Command ==>
PF1=Help  PF2=End  PF3=Return  PF4=Clear  PF5=Reset  PF6=Roll
          PF9=Save          PF12=Retrieve

```

Figure 29. DISPSFLT Sample Panel

Filters are used to tailor the DISPSTAT display. To be displayed, a subsystem must pass all the filter criteria. If a filter is not explicitly set, it defaults to '*', which means that all subsystems pass it. Some filters allow you to specify a wildcard character, in the form of a trailing '*'.

- The Resources field contains the name of the resources or their jobs.
- The Statuses field shows the subsystem’s current status. If '~', or '\ ' is specified, all statuses not specified are used.
- The Target Systems field shows the name of the target system.
- If you press PF4 the filter settings are cleared.

DISPSFLT

Subsystems are evaluated to see if they meet the current filter criteria:

- When DISPSTAT is invoked with filter parameters
- When the filters are changed through the DISPSTAT Filters panel
- When the Refresh key (PF9) is selected from the DISPSTAT panel.

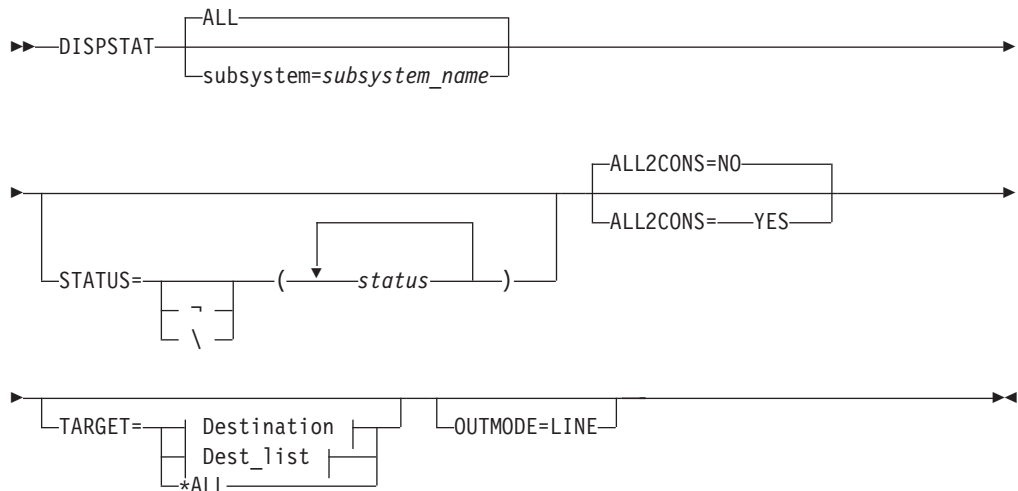
Note: If you make changes on this panel, and then decide that you do not want these changes to take effect, you can select the Reset key (PF5), which reinstates the field values that were present when you entered the panel. If you press PF9 the filter settings are saved until the session is terminated.

DISPSTAT

Purpose

DISPSTAT displays current information about one or more subsystems.

Syntax



Destination:



Dest_list:



Parameters

ALL

Displays the current information for all automated subsystems.

subsystem

Specifies the particular subsystem whose status or automation flags you want to check. You can specify any automated subsystem.

STATUS

Specifies the resource statuses that you want to display. If more than one is specified, separate the statuses with a blank. The status or list of statuses must be enclosed in single quotation marks. If '-' or '\' is used, all statuses except the ones you specify are displayed.

There are some predefined lists:

STATUS=*

Lists all resource statuses.

STATUS=1

Lists all resources that are currently UP or ENDED.

STATUS=2

Lists all resources that are in a 'normal' status (DOWN, STARTED, UP, AUTOTERM, AUTODOWN, ACTIVE, ENDED, ENDING, RESTART, EXTSTART, RUNNING).

STATUS=3

Lists all resources that are in a 'down' status (DOWN, INACTIVE, RESTART, AUTODOWN, CTLDOWN, STOPPED, BROKEN, MOVED, FALLBACK).

STATUS=4

Lists all resources that are in a start transition status (RESTART, STARTED, STARTED2, ACTIVE, RUNNING, EXTSTART).

STATUS=5

Lists all resources that are in a stop transition status (AUTOTERM, ENDING, STOPPING, ABENDING, BREAKING)

ALL2CONS

Specifies whether or not a complete list of columns is displayed. The parameter only applies to line mode. The following are valid values:

NO Displays only 60 characters of display data for each resource. This is the default.

YES Displays the complete list of columns.

For example, you can specify:

```
DISPSTAT cics* OUTMODE=LINE ALL2CONS=YES
```

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

If no parameters are specified, the filter settings will be used, or, if not set, DISPSTAT will show all resources of the sysplex.

DISPSTAT

If a subsystem name is specified, but no other parameters, for example, TARGET=, are specified, all subsystems of this name found on any system will be displayed.

Restrictions and Limitations

The DISPSTAT command can only be used when SA OS/390 is initialized.

Examples

If you type dispstat, you see information about all automated resources:

```
AOFKSTA5          SA OS/390 - Command Dialogs          Line 1 of 442
Domain ID = IPSFO ----- DISPSTAT -----          Date = 04/17/00
Operator ID = NETOP1                                     Time = 14:24:01
 A ingauto B setstate C ingreq-stop D hresholds E explain F info G tree
 H trigger I service J all children K children L all parents M parents
CMD  RESOURCE      STATUS      SYSTEM      JOB NAME      A I S R D RS TYPE      Activity
-----
AGFG      BROKEN      KEY3        AGFG          Y Y Y Y Y Y MVS      --none--
AGFG2     BROKEN      KEY3        AGFG2         Y Y Y Y Y Y MVS      --none--
ANELSTP1  UP          KEY3        ANELSTP1      Y Y Y Y Y Y MVS      STOPPING
ANELTEST  UP          KEY3        ANELTEST      Y Y Y Y Y Y MVS      STOPPING
ANEL0AA1  UP          KEY3        ANEL0AA1      Y Y Y Y Y Y MVS      --none--
ANEL00A1  UP          KEY3        ANEL00A1      Y Y Y Y Y Y MVS      STOPPING
ANEL00B1  UP          KEY3        ANEL00B1      Y Y Y Y Y Y MVS      STOPPING
ANEL00B2  UP          KEY3        ANEL00B2      Y Y Y Y Y Y MVS      --none--
ANEL00B3  UP          KEY3        ANEL00B3      Y Y Y Y Y Y MVS      --none--
ANEL00B4  UP          KEY3        ANEL00B4      Y Y Y Y Y Y MVS      --none--
ANEL00B5  UP          KEY3        ANEL00B5      Y Y Y Y Y Y MVS      --none--
ANEL00C1  UP          KEY3        ANEL00C1      Y Y Y Y Y Y MVS      --none--
APPC      UP          KEY3        APPC           Y Y Y Y Y Y MVS      --none--
ASCH      UP          KEY3        ASCH           Y Y Y Y Y Y MVS      --none--
BATB000P100 DOWN      KEY3        B000P100      Y Y Y Y Y Y TRANS --none--
BATB000P200 DOWN      KEY3        B000P200      Y Y Y Y Y Y TRANS --none--
BATB000P300 DOWN      KEY3        B000P300      Y Y Y Y Y Y TRANS --none--
BATB000S100 DOWN      KEY3        B000S100      Y Y Y Y Y Y TRANS --none--
BATB000S200 DOWN      KEY3        B000S200      Y Y Y Y Y Y TRANS --none--
BATB000S300 DOWN      KEY3        B000S300      Y Y Y Y Y Y TRANS --none--
BLSJPRMI ENDED     KEY3        BLSJPRMI      Y Y Y Y Y Y ONE SHOT --none--

Command ==>
PF1=Help   PF2=End   PF3=Return PF4=INGLIST PF5=Filters PF6=Ro11
PF8=Forward PF9=Refresh PF10=Previous PF11=Next PF12=Retrieve
```

Figure 30. Display of Status of All Automated Resources (DISPSTAT)

- The CMD field allows you to invoke other SA OS/390 command dialogs, or control the amount of information displayed. To use one of the command dialogs, type the appropriate letter next to the resource name, and press Enter. When you return to this panel the data within the command scope is refreshed. The current filters are not re-applied until you select Refresh (PF9).

For example, to go to the INGTHRES dialog to change thresholds for JES2, move the cursor beside JES2 and type d.

You can specify X to exclude subsystems.

- The RESOURCE field shows the name of the resource in its corresponding status color, for example, green when the system is UP.
- The STATUS field shows the current status of the resource.
- The automation flags are:
 - A If this flag is set to N (No), no automation is on, regardless of how the

other flags are set. If this is set to Y (Yes), SA OS/390 checks each of the other flags to see if it is set to Y or N.

- I** If this is on, automation issues the correct MVS start command for each subsystem when SA OS/390 is initialized and assures that subsystems are started in the order specified in the automation control file.
- S** If this is on, automation manages and completes the startup process of subsystems.
- R** If this is on, automation takes the specified action for any MVS message that is not associated with the initialization, startup, shutdown, or restart of a subsystem. For example, if this flag is on, automation takes actions to restart the subsystem in case of an abend.
- D** If this is on, automation manages the shutdown process for subsystems by issuing shutdown commands and responding to prompts for additional information.
- RS** If this is on, automation monitors subsystems to ensure that they are running and if one fails, attempts to restart it according to the policy in the automation control file.

Each flag has a value of:

- N** Off
- E** User exit
- Y** On
- ?** Error

- The TYPE field shows the type of job, either MVS, NONMVS, TRANS(ient), or ONESHOT.
- The Activity field shows whether the resource is in a starting or stopping process.

PF4 lets you toggle to the INGLIST command dialog showing the same resources from the automation manager view.

PF10 and PF11 let you scroll horizontally.

If you press PF11 on this panel, a panel similar to the following is displayed:

DISPSTAT

```

A0FKSTA5          SA OS/390 - Command Dialogs          Line 1 of 442
Domain ID = IPSFO ----- DISPSTAT -----          Date = 10/25/99
Operator ID = AFRANCK                                     Time = 11:41:24
  A ingauto B setstate C shutsys D thresholds E explain F info G tree
  H trigger I service J all children K children L all parents M parents
CMD  RESOURCE      STATUS      LAST CHANGED      LAST MONITORED
-----
AGFG      BROKEN      10/23/99 15:02:14 10/25/99 11:21:44
AGFG2     BROKEN      10/23/99 15:02:13 10/25/99 11:21:44
ANELSTP1  UP          10/23/99 15:02:47 10/25/99 10:22:43
ANELTEST  UP          10/23/99 15:02:54 10/25/99 10:22:43
ANEL0AA1  UP          10/23/99 15:02:50 10/25/99 11:21:44
ANEL00A1  UP          10/23/99 15:02:56 10/25/99 10:22:43
ANEL00B1  UP          10/23/99 15:02:45 10/25/99 10:22:43
ANEL00B2  UP          10/23/99 15:02:56 10/25/99 11:21:44
ANEL00B3  UP          10/23/99 15:02:56 10/25/99 11:21:44
ANEL00B4  UP          10/23/99 15:03:04 10/25/99 11:21:44
ANEL00B5  UP          10/23/99 15:02:53 10/25/99 11:21:44
ANEL00C1  UP          10/23/99 15:02:58 10/25/99 11:21:44
APPC      UP          10/23/99 15:02:12 10/25/99 11:21:44
ASCH      UP          10/23/99 15:02:12 10/25/99 11:21:44
BATB000P100 DOWN      10/23/99 15:02:14 10/25/99 11:21:44
BATB000P200 DOWN      10/23/99 15:02:14 10/25/99 11:21:44
BATB000P300 DOWN      10/23/99 15:02:15 10/25/99 11:21:44
BATB000S100 DOWN      10/23/99 15:02:18 10/25/99 11:21:44
BATB000S200 DOWN      10/23/99 15:02:17 10/25/99 11:21:44
BATB000S300 DOWN      10/23/99 15:02:17 10/25/99 11:21:44
BLSJPRMI  ENDED      10/23/99 15:02:12 10/25/99 11:21:44

Command ==>
PF1=Help   PF2=End     PF3=Return  PF4=INGLIST  PF5=Filters  PF6=Roll
           PF8=Forward PF9=Refresh PF10=Previous PF11=Next   PF12=Retrieve

```

Figure 31. DISPSTAT Command Dialog Times Panel

- The RESOURCE field shows the name of the resource.
- The STATUS field shows the status of the resource.
- The LAST CHANGED field shows the date and time that the status of the subsystem last changed.
- The LAST MONITORED field shows the time that the system was last monitored. If monitoring has been disabled this field is set to dashes.

If you press PF11 on this panel, a panel similar to the following is displayed:

```

A0FKSTA5          SA OS/390 - Command Dialogs          Line 1 of 442
Domain ID = IPSFO ----- DISPSTAT -----          Date = 10/25/99
Operator ID = NETOP1                                   Time = 11:59:07
A ingauto B setstate C shutsys D thresholds E explain F info G tree
H trigger I service J all children K children L all parents M parents
CMD RESOURCE      STATUS      TRIGGER  SRVC PRD DESCRIPTION
-----
AGFG              BROKEN          none
AGFG2             BROKEN          none
ANELSTP1         UP              with
ANELTEST         UP              Used
ANEL0AA1         UP              For
ANEL00A1         UP              For
ANEL00B1         UP              Application
ANEL00B2         UP              For
ANEL00B3         UP              For
ANEL00B4         UP              For
ANEL00B5         UP              For
ANEL00C1         UP              For
APPC              UP              APPC/MVS
ASCH              UP              ASCH
BATB000P100     DOWN           Stop
BATB000P200     DOWN           =
BATB000P300     DOWN           Stop
BATB000S100     DOWN           Start
BATB000S200     DOWN           =
BATB000S300     DOWN           Start
BLSJPRMI        ENDED          none

Command ==>
PF1=Help   PF2=End   PF3=Return  PF4=INGLIST  PF5=Filters  PF6=Ro11
            PF8=Forward PF9=Refresh PF10=Previous PF11=Next   PF12=Retrieve

```

Figure 32. DISPSTAT Command Dialog Description Panel

- The RESOURCE field shows the name of the resource.
- The STATUS field shows the status of the resource.
- The TRIGGER field shows the triggers that are defined for the subsystem (only shown if the resource is managed by SA OS/390 V1R3).
- The SRVC PRD field shows the service periods that are defined for the subsystem (only shown if the resource is managed by SA OS/390 V1R3). It is recommended that you use the INGLIST command to display the triggers and service periods.
- The DESCRIPTION field shows a description of the subsystem, from the automation control file.

Press PF11 to return to the first DISPSTAT panel.

Press PF5 to display the DISPSFLT panel. For a description of the DISPSFLT command refer to “DISPSFLT” on page 65.

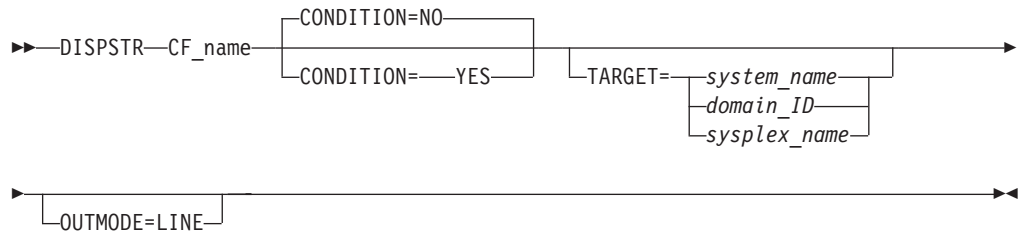
DISPSTR

Purpose

The DISPSTR command shows all structures for the selected coupling facility. If the ‘Include Condition’ option is selected, the current structure condition is also shown. Selecting this option increases the response time required to build the display.

DISPSTR

Syntax



Parameters

CF_name

The name of the coupling facility for which the structures should be displayed

CONDITION

Specify YES if you want to see the actual condition for each structure. Selecting this option increases the response time required to build the display. The default is NO.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPSTR command can only be used when SA OS/390 is initialized.

Examples

```

A0FKX210          SA OS/390 - Command Dialogs          Line 1   of 21
Domain ID   = SC55A  ----- DISPSTR -----          Date = 07/07/99
Operator ID = OPID                                     Time = 11:02:15

CFname ==> CF01
Include condition on display Y   (YES/NO - Condition retrieval takes longer)

Cmd: F Force  R Rebuild  S Details
CMD Structure name          Condition
-----
DFHXQLS_TSQ1                *No connection exists.
DSNDSGC_GBP0                Duplex rebuild is active.
IMS_LOCK1                   No active connection exists.
ISGLOCK
ISTMNPS
IXC_DEFAULT_1
IXC_DEFAULT_2
JES2CHPT_1                  *Rebuild is not supported.
LOG_DFHLOG_P01
LOG_DFHLOG_P02
LOG_DFHSUNT_P01
LOG_DFHSUNT_P02            *No alternate coupling facility defined or available.
RRS_ARCHIVE_1
RRS_DELAYEDUR_1
RRS_MAINUR_1
RRS_RESTART_1
RRS_RMDATA_1
SYSTEM_LOGREC               The structure's initial size is less than its actual size.
SYSTEM_OPERLOG

Command ==>
PF1=Help   PF2=End       PF3=Return          PF6=Roll
PF9=Refresh PF12=Retrieve

```

Figure 33. DISPSTR Command Dialog Panel

- The CFname shows the name of the coupling facility. It can be overtyped.
- The CMD field allows you to specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name and press Enter. The following command codes are available:
 - F** Forces the selected structure
 - R** Rebuilds the selected structure
 - S** Shows details for the selected structure
- The Structure name field shows the name of the structure.
- The Condition field shows the status of the structure.

DISPSYS

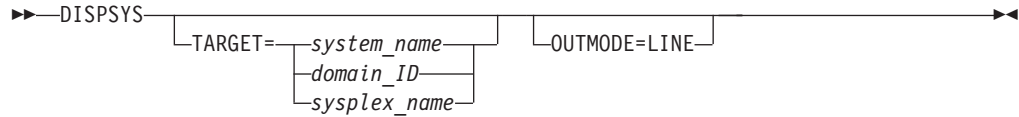
Purpose

The DISPSYS command displays information about the NetView automation agent setup.

DISPSYS

Note that if no data is defined or it is not relevant, for example, the sysplex group name for a system not in a sysplex, the word 'none' is displayed in the appropriate field.

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPSYS command can only be used when SA OS/390 is initialized.

Usage

DISPSYS is used when you wish to see the system parameters and SA OS/390 status information for the Sysplex Timer[®].

Examples

If you type `dispsys`, you see a panel similar to the following:


```

AOFKADAE          SA OS/390 - Command Dialogs
Domain ID = IPUFA  ----- DISPSYS -----      Date = 06/27/00
Operator ID = NETOP1                               Time = 15:13:25

System : AOCA      in Sysplex : AOCPLEX  Group : SYSPLEX_AOCPLEX
Domain : IPUFA

Operating System : OS/390 02.09.00
System Automation : V2R1M0                      Sysplex Timing
                                                Defined : No timers
                                                Current : Unknown
                                                IDs : None

Flags - Automation : Yes
      Init Start : Yes
      Start : Yes
      Recovery : Yes
      Shut Down : Yes
      Restart : Yes

Primary Scheduling Subsystem : JES2              Heartbeat Interval : 5
Type : JES2                               Missing Heartbeat Delay : 30

Root for SDF updates : AOCA                  XCF Group name : INGXSG

Command ==>
PF1=Help   PF2=End   PF3=Return   PF6=Roll   PF12=Retrieve

```

Figure 34. DISPSYS Command Dialog Panel

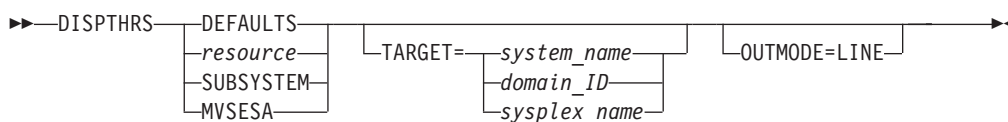
For further details about the fields on the panel, refer to the customization dialog and to *System Automation for OS/390 Defining Automation Policy*.

DISPTHRS

Purpose

The DISPTHRS command displays the threshold settings for a specific resource, or the default settings for a group of resources or all automated resources.

Syntax



Parameters

DEFAULTS

Displays the system-wide default settings. These defaults apply to resources that do not have their own thresholds defined or that do not belong to a group that has thresholds defined.

SUBSYSTEM

Sets defaults for all subsystems.

resource

Displays the threshold settings for a particular resource. You can specify any automated resource.

DISPTHRS

MVSESA

Sets defaults for all MVS subcomponents.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

If you invoke DISPTHRS without parameters a panel in which you can specify parameters is displayed:

```
AOFKAADT          SA OS/390 - Command Dialogs
Domain ID   = IPUF9   ----- DISPTHRS -----   Date = 01/05/98
Operator ID = NETOP1                                Time = 11:49:10

Select the threshold setting to be displayed:

Type of Thresholds   Specific Resource name or group

Defaults              =>
Resource name or group =>

System                =>          System name, domain ID
                               or sysplex name

Default thresholds will be displayed if resource
is undefined or invalid.

Command ==>>
PF1=Help      PF2=End      PF3=Return

PF6=Ro11
PF12=Retrieve
```

Figure 35. DISPTHRS Command Dialog Panel

- The Defaults field shows the default threshold settings if you enter a non-blank character.
- The Resource name or group field: any resource name, for example, TSO or RMF™, or resource group, for example, SUBSYSTEM or MVSESA can be entered in this field. If a resource name is entered, the specific thresholds for that resource are displayed. If the resource has no thresholds, the settings of its group are shown. If the group has no threshold settings the system defaults are displayed.
- The System field shows the name of the system from where you obtain the information.

Restrictions and Limitations

The DISPTHRS command can only be used when SA OS/390 is initialized.

Usage

If you specify a resource for which no thresholds are set, SA OS/390 displays the threshold settings for that resource group (SUBSYSTEM, MVSESA, or DEFAULTS). If there are no thresholds established for that group, it displays the thresholds for DEFAULTS.

Examples

If you type `dispthrs jes2`, you see the following command dialog:

```

AOFKAASR          SA OS/390 - Command Dialogs
Domain ID  = IPUF9  ----- INGTHRES -----      Date = 12/17/97
Operator ID = NETOP1                               Time = 15:50:05

Specify thresholds and resource changes:

Resource   =>  JES2          Group or specific resource
System     =>  AOC9          System name, domain ID, sysplex name or *all

Critical   =>  4      errors in 00:15      Time (HH:MM)
Frequent   =>  2      errors in 00:30      Time (HH:MM)
Infrequent =>  1      errors in 01:00      Time (HH:MM)

Pressing ENTER will set the THRESHOLD values

Command ==>
PF1=Help   PF2=End   PF3=Return   PF6=Ro11
  
```

Figure 36. Display of Threshold Settings for JES (DISPTHRS JES)

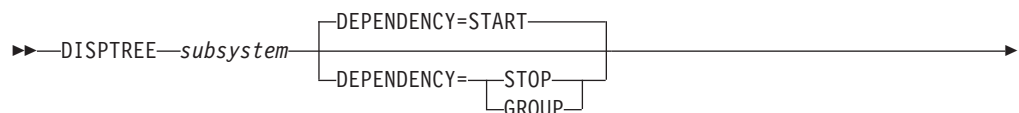
This panel shows the Critical threshold (4 errors in 15 minutes), the Frequent threshold (2 errors in 30 minutes), and the Infrequent threshold (1 error in 1 hour). If JES reaches the Critical threshold, Restart automation does not continue. If it crosses the Frequent or Infrequent threshold, a message is sent to notification operators to inform them of this.

DISPTREE

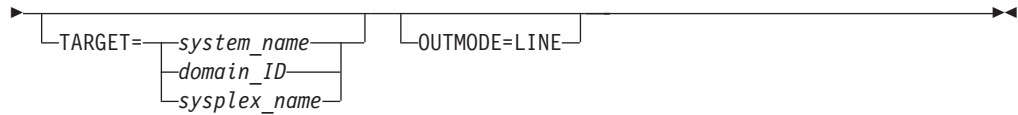
Purpose

The DISPTREE command displays the dependency graph for a particular resource.

Syntax



DISPTREE



Parameters

subsystem

The name of the subsystem the display is to be focused upon.

DEPENDENCY

Specifies the type of dependency that should be used to draw the dependency graph. The following options are available:

START

The start relationship that is defined for the named subsystem will be used to draw the graph.

STOP

The stop relationship that is defined for the named subsystem will be used to draw the graph.

GROUP

The group relationship that is defined for the named subsystem will be used to draw the graph.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPTREE command can only be used when SA OS/390 is initialized.

Examples

If you type `disptree jes2`, a panel similar to the following is displayed:

```

AOFKTREE          SA OS/390 - Command Dialogs      Line 1 of 78
Domain ID = IPSNO ----- DISPTREE -----      Date = 07/19/00
Operator ID = NETOP1                               Time = 18:39:18

Subsystem ==> JES2      System ==> KEY3      Dependency ==> START

PCAUTH  --+
  AOCSSI  --+
    AOCAPPL  --+
      JES2
        +-- AMCP
        +-- ASTEX
        +-- DBUSS
        +-- IRRDPTAB
        +-- MIM
          |
          +-- TMS
            |
            +-- SLS
              |
              +-- HSM
        +-- OMIIHIST
          |
          +-- OMIIHDI
            |
            +-- OMIIETE
              |
              +-- OMIICOL
                |
                +-- OMIICCOL
                  |
                  +-- OMIICCUA
        +-- PIRLM
          |
          +-- PIMS
            |
            +-- OMIIIPIMS
              |
              +-- PIMSDBRC
                |
                +-- PIMSDLI
        +-- PMO
        +-- QFETCHA
        +-- QFETCHB
        +-- QFETCHC
        +-- QFETCHD
        +-- RMF
          |
          +-- RMFGAT
        +-- RODM
          |
          +-- GMFHS
          +-- NETGMFLS

Command ==>
PF1=Help   PF2=End   PF3=Return   PF4=Focus   PF5=Info   PF6=Ro11
            PF8=Forward PF9=Refresh   PF11=Right PF12=Retrieve

```

Figure 37. DISPTREE Sample Panel

- The Subsystem field shows the name of the subsystem
- The System field shows the name of the system where the subsystem resides
- The Dependency field shows the dependency type (START, STOP, or GROUP)

If you put the cursor next to a resource and press PF4 the tree structure of the resource is shown.

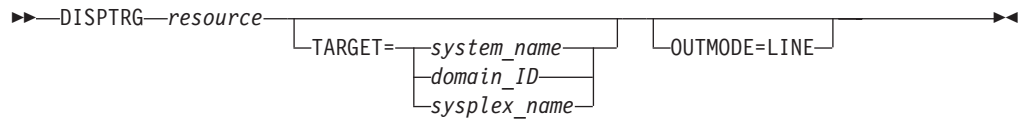
PF5 lets you toggle to the DISPINFO command dialog.

DISPTRG

Purpose

The DISPTRG command displays the trigger conditions of a subsystem.

Syntax



Parameters

resource

The name of the resource for which the trigger condition is displayed. The format is name/type[/system]. Wildcard is supported.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPTRG command can only be used when SA OS/390 is initialized.

Examples

If you type the name of a resource that has a trigger defined, a panel similar to the following is displayed:

```

AOFLT000          SA OS/390 - Command Dialogs          Line 1 of 4
Domain ID = IPSFO  ----- DISPTRG -----           Date = 10/25/99
Operator ID = NETOP1      System = KEY3                Time = 13:26:58

Resource ==> TRGG006AA10/APL/KEY3
System ==> KEY3          System name, domain id or sysplex name
Trigger. . . : TRIGGER6

Cmd: S show details
Cmd Type      Events
-----
STARTUP      B000S100 B000S200
STARTUP      B000S300
SHUTDOWN     B000P100 B000P200
SHUTDOWN     B000P300

Command ==>
PF1=Help     PF2=End       PF3=Return    PF6=Roll
              PF9=Refresh   PF12=Retrieve
  
```

Figure 38. DISPTRG Command Dialog Panel

- The Resource field shows the name of the resource that uses the trigger.
- The System field shows the name of the system where the subsystem is defined.

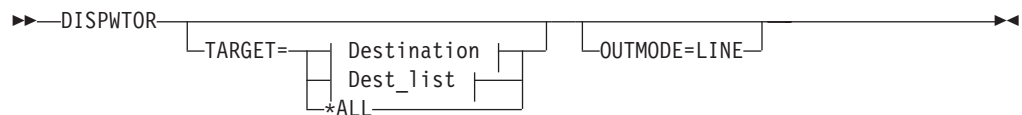
- The Trigger field shows the trigger that is defined for the subsystem.
- The Cmd field allows you to specify command codes. The following command code is available:
 - S Shows details of the system defined.
- The Type field shows the type of the specified condition.
- The Events field shows the names of the specified events. Event that are satisfied are shown in white. Unset events are shown in red.

DISPWTOR

Purpose

The DISPWTOR command displays all currently outstanding WTORs. They are sorted by subsystem, with each subsystem's primary WTOR shown first, and then any secondary WTORs. The primary WTOR is the one that shutdown passes reply to. Secondary WTORs are shown in blue.

Syntax



Destination:



Dest_list:



Parameters

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

Restrictions and Limitations

The DISPWTOR command can only be used when SA OS/390 is initialized.

DISPWTOR

Usage

DISPWTOR is used to determine what outstanding WTORs SA OS/390 has, or to find the reply for a specific subsystem. DISPWTOR differs from the SDF WTOR display in that the information shown is constructed from the global variables that SA OS/390 uses to keep track of current WTORs, and determine if it is possible to reply to one.

Examples

If you type dispwtor you see a panel similar to the following:

```
AOFKADAC          SA OS/390 - Command Dialogs          Line 1 of 2
Domain ID = IPSFP ----- DISPWTOR -----          Date = 11/10/97
Operator ID = OPER1                                     Time = 16:55:47

  Rply  System  Subsystem  Message
-----
   64  KEY6    NETVIEW    DSI802A IPSFP REPLY WITH VALID NCCF
                                SYSTEM OPERATOR COMMAND

Command ==>
PF1=Help      PF2=End          PF3=Return      PF6=Roll
               PF9=Refresh      PF12=Retrieve
```

Figure 39. Display of Outstanding Replies (DISPWTOR)

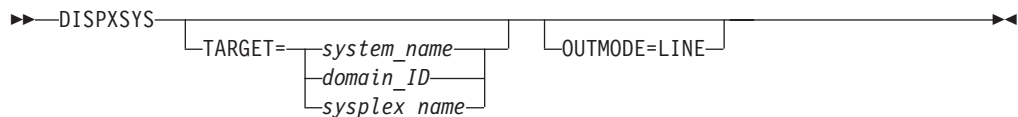
- The Rply field shows the outstanding reply number.
- The System field contains the value stored by OUTREP (AOFRSORP) from the NetView REXX variable sysid(), which is the ID of the MVS system that sent the message.
- The Subsystem field shows the subsystem name, or MVSESA if the reply is from a resource that is not a subsystem.
- The Message field shows the text of the message.

DISPXSYS

Purpose

The DISPXSYS command displays the target sysplex name, its GRS mode and its member systems.

Syntax



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DISPXSYS command can only be used when SA OS/390 is initialized.

Examples

```

AOFKX100          SA OS/390 - Command Dialogs          Line 1 of 4
Domain ID = IPSNO ----- DISPXSYS -----          Date = 03/02/00
Operator ID = NETOP1                                     Time = 15:35:46

Sysplex . . . . . : KEY1PLEX
GRS Mode . . . . . : STAR

Display more info: C CPU E ETR I IPL O IOS S STOR/ESTOR
Signalling Path : D device T structure

          Monitor
Cmd  System  Status  Timestamp  INTERVAL  Action  SSUM  -----
-----  -----  -----  -----  -----  -----  TIME  WEIGHT
KEY1   ACTIVE  15:35:36  86400     N/A        N/A     N/A
KEY2   ACTIVE  15:35:36  86400     N/A        N/A     N/A
KEY3   ACTIVE  15:35:37  86400     N/A        N/A     N/A
KEY4   ACTIVE  15:35:36  86400     N/A        N/A     N/A

Command ==>
F1=Help      F2=End      F3=Return   F6=Roll
              F9=Refresh  F12=Retrieve

```

Figure 40. DISPXSYS Command Dialog Panel

- The Sysplex field shows the name of the sysplex.
- The GRS Mode field shows the GRS mode of the target system. The mode can be either STAR or RING.
- The CMD field allows you to specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name, and press Enter. The following command codes are available:
 - C** Displays the online or offline status of one or more processors and any vector facilities, or ICRFs attached to those processors
 - E** Displays the timer synchronization mode and ETR ports
 - I** Displays IPL information
 - O** Displays IOS-related configuration information
 - S** Displays the number of megabytes of central and expanded storage assigned and available to the system

DISPXSYS

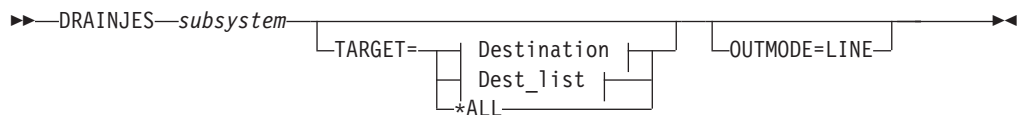
- D Displays the device number of one or more in-/outbound signalling paths that XCF can use and information about in-/outbound XCF signalling paths to this system
- T Displays detailed signalling path information for all coupling facility structures
 - The System field shows the name of the system.
 - The Status field shows the status of the system.
 - The Monitor Timestamp field shows the last time stamp recorded for status monitoring on this system.
 - The INTERVAL field shows the system failure detection interval in seconds. This interval is the time XCF allows to elapse without a status update before assuming that system failed.
 - The SSUM Action field shows the SSUM action. It can be one of the following:
 - ISOLATE
 - DEACTIVATE
 - RESET
 - PROMPT
 - N/A
 - The SSUM TIME field shows the SSUM interval as specified in the current SFM policy.
 - The SSUM WEIGHT field shows the SSUM weight specified in the current SFM policy. This weight is used in sysplex configurations after a signalling connectivity failure.

DRAINJES

Purpose

DRAINJES drains (halts) JES2 resources prior to JES2 shutdown. Specifically, DRAINJES issues commands to drain the initiators, syslog, offloader tasks, lines, printers, punches, and readers (depending on which resources are listed in the automation control file).

Syntax



Destination:



Dest_list:

Parameters

subsystem

Specifies the name of the JES2 subsystem whose resources you want to drain. If you are in full-screen mode and you do not specify a subsystem, a panel is displayed on which you can specify the subsystem. If you are in line mode an error message is displayed.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The DRAINJES command can only be used when SA OS/390 is initialized.

Usage

Normally, you do not need to issue this command because it is performed automatically as part of the SHUTDOWN processing. However, if SA OS/390 is unable to shut down a particular JES2 subsystem, you can use DRAINJES.

Examples

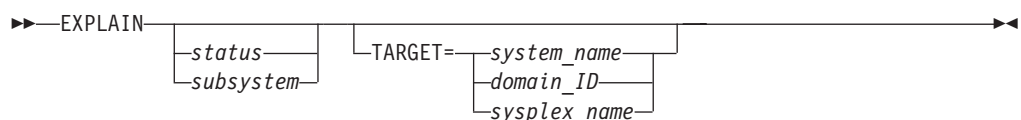
Assuming the JES2 subsystem name is JES2, type `drainjes jes2` to drain the JES2 resources.

EXPLAIN

Purpose

The EXPLAIN facility is a series of interlinked view panels that give descriptions of the automation statuses that SA OS/390 can put a subsystem into. Each status has its own panel that shows what the status means, how the subsystem might have got into the status, and how to get out of it.

Syntax



EXPLAIN

Parameters

If you do not specify any parameters, a menu panel is displayed giving a list of valid statuses and an explanation of the EXPLAIN command.

status

The status you want to see an explanation of.

subsystem

The name of the subsystem you are investigating. Its status is queried and an explanation of the automation agent status is displayed.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The EXPLAIN command can only be used when SA OS/390 is initialized.

Usage

Use EXPLAIN when you want information about an automation status.

Examples

If you type EXPLAIN UP, you see the following panel:

```
A0FXPUP                SA OS/390 - The UP Status Help                Page 1 of 2

There are several ways that a subsystem can get to UP status. These
include:

o An UP message is received for the subsystem. The only time this will
  not be honored is if SA OS/390 is shutting the subsystem down at the time.
o During initial status determination the subsystem's application monitor
  status was found to be ACTIVE. If it exploits MVS automatic restart
  management, then its status with this must also be AVAILABLE.
o SA OS/390 went to start the subsystem, but found it to be ACTIVE with an
  ARM status of AVAILABLE.
o An operator may use the SETSTATE to change a subsystem's automation status
  to UP (but only from ACTIVE, STARTED2, ZOMBIE, HALFDOWN or HALTED).

Enter a character for a description of the corresponding status.

  A ACTIVE   B INACTIVE  C STARTED2  D ZOMBIE   E AUTOTERM  F STOPPING
  G ABENDING H BREAKING  I HALTED   J ENDING

TO SEE YOUR KEY SETTINGS, ENTER 'DISPFK'
Action===>
```

Figure 41. UP Status Help Panel

Type the letter shown before the statuses shown at the bottom of the screen at the command prompt, and you are presented with an explanation of it. Pressing PF1 shows you all statuses for which EXPLAIN panels are available.

GWTRACE

Purpose

GWTRACE is used to enable and disable the GATEWAY debugging feature. When activated, all gateway requests are logged in the netlog through messages AOF665I and AOF666I.

If a notification operator is logged on with the debug message class (1), that operator also receives the trace messages.

The GWTRACE request can be routed to other domains.

Syntax



Parameters

If you do not specify any parameters, a panel is displayed upon which you enter parameters.

option

Specifies the trace option. This is either YES, NO, ON, or OFF.

todomain

Specifies the destination domain for the gateway trace. Defaults to the invoking domain.

Restrictions and Limitations

None.

Usage

This routine logs messages AOF665I or AOF666I to the netlog.

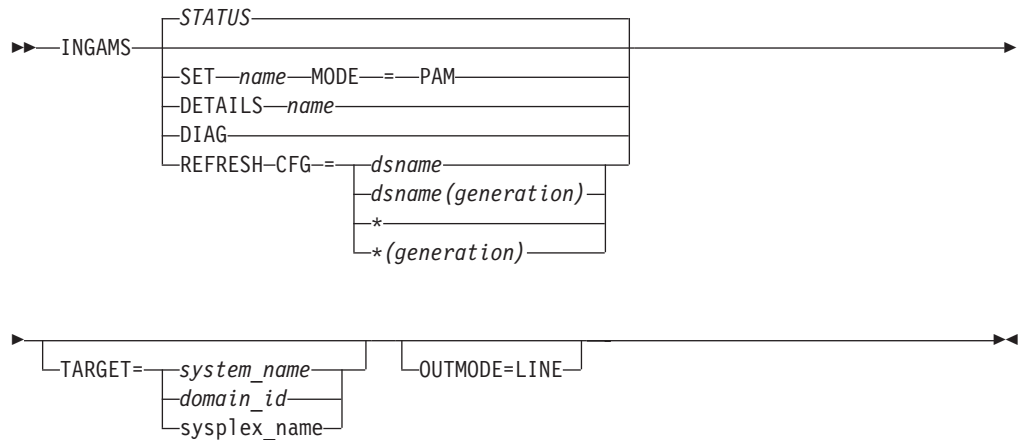
INGAMS

Purpose

The INGAMS command displays details about currently registered automation managers and automation agents, and lets you change the operation mode (PAM or SAM) of the automation managers. Note that it is only possible to make a secondary automation manager a primary one, not vice versa.

INGAMS also lets you dynamically refresh the definition data for an automation manager and the corresponding ACFs with the contents of a specified configuration data set. The consistency of the configuration data as used by the automation agent and the associated ACFs is maintained.

Syntax



Parameters

STATUS

Displays a list of all automation manager and automation agents in the sysplex registered to the same XCF group.

SET

Changes the operation mode of the specified automation manager.

DETAILS

Displays detailed information about the specified automation manager.

DIAG

Displays the diagnostic panel where you can either request that a snapshot of the current state image queue is to be written out or that recording of the inbound work items is to be started or stopped. The output file must be a sequential data set.

REFRESH

Updates an automation manager with the definition data stored in the specified configuration file. This also reloads the appropriate ACFs on the active automation agents.

CFG=

The name of a partitioned data set holding the configuration file member as well as the ACF fragments. The name can be a fully qualified data set name or generation data group name. An asterisk (*) can be used to indicate a reload of the previously used configuration file or a different generation of the previously used GDG.

dsname

Specifies a data set name.

dsname (generation)

Specifies the name of a generation data group (GDG) and the generation number (zero or signed integer) of a generation data set within the GDG.

name

Is the name of the automation manager.

MODE=PAM

Specifies the mode of operation. The mode can be:

PAM Primary automation manager

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

None.

Usage

The INGAMS command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

When using the DIAG parameter make sure that the data set for writing a snapshot or for starting recording is online and free before issuing a command. The data set must be used exclusively by the automation manager (DISP=OLD) for making snapshots or for recording.

Use a partitioned data set (PDS) or a partitioned data set extended (PDSE). The output file must be a sequential data set. The size of the data set should be defined according to the size specified in the snapshot size field under diagnostic info of the INGAMS panel.

Examples

If you type `ingams` a panel similar to the following is displayed:

```

INGKYAM0          SA OS/390 - Command Dialogs          Line 1    of 2
Domain ID = IPSNO  ----- INGAMS -----            Date = 03/02/00
Operator ID = AFRANCK          Sysplex = KEY1PLEX      Time = 15:48:30

Cmd:  A Change Mode  B Show Details  C Refresh Configuration  D Diagnostic

Cmd  System      Member      Role  Status  Sysplex  XCF-Group  Release
-----
KEY3  KEY3$$$$$2  PAM  READY  KEY1PLEX  INGXS2  V2R1M0
KEY3  KEY3        AGENT  READY  KEY1PLEX  INGXS2  V2R1M0

Command ==>
PF1=Help      PF2=End      PF3=Return   PF6=Roll
PF9=Refresh   PF12=Retrieve
    
```

Figure 42. INGAMS Command Dialog Panel 1

- The CMD field allows you to specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name, and press Enter. The following command codes are available:
 - A** Displays the change automation manager dialog panel, where you can modify the operation mode of the automation manager. You can make a secondary automation manager a primary one (SAM => PAM).
 - B** Displays additional information about the automation manager or automation agent. For an automation agent, the DISPSYS command is issued to show details about the agent and the environment the agent runs on.
 - C** Displays the refresh configuration data panel. You need to enter the name of the data set containing the automation control file fragments and the configuration members.
 - D** Displays the utility panel where you can perform the following diagnostic functions:
 - Write snapshot
 - Start/stop recording

For further information refer to *System Automation for OS/390 User's Guide*.

- The System field shows the name of the system where an instance of the automation manager or automation agent runs.
- The Member field shows the name of the agent or manager. The name must be unique within the XCF group. The member name for an automation manager is automatically generated and consists of the OS/390 system name plus a 1-character suffix running from 1 to 9. The OS/390 system name is padded with '\$' to create an 8-character system name before appending the suffix.

Note: The member name of an automation agent is equal to the OS/390 system name.

- The Role field shows the type of the system. It can be one of the following:

AGENT	An automation agent
PAM	The primary automation manager
SAM	The secondary automation manager. There can be more than one.

- The Status field shows the status of the member. It can be one of the following:
blank The status is unknown. This is always the case if you work with SA OS/390 V1R3.

NOT READY

The automation agent or manager is initializing

READY

The member is completely initialized

PENDING

Indicates that the automation manager is in the process of initializing as a primary automation manager (PAM)

SELECTED

The automation manager is selected to become the next primary automation manager (PAM)

STOPPING

The automation manager is terminating

REFRESH

Indicates that the automation manager performs a configuration refresh

- The Sysplex field shows the name of the sysplex.
- The XCF-Group field shows the name of the associated XCF-Group.
- The Release field shows the SA OS/390 Version and Release of the automation manager or automation agent.

The FIND/RFIND/SORT commands are supported. Refer to “Deciding the Format of the Command Output (Full-Screen only)” on page 13 for information.

Changing the Automation Manager’s Operation Mode

When you enter command code A for a secondary automation manager, a panel is displayed where you can specify the new mode of operation. Switching into primary mode is considered a directed takeover.

```

INGKYAM1          SA OS/390 - Command Dialogs
Domain ID = IPSFO  ----- INGAMS -----      Date = 10/25/99
Operator ID = NETOP1      Sysplex = KEY1PLEX      Time = 14:04:25

Specify or revise the following data:

Automation manager ==> KEY4$$$$3
New operation mode ==> PAM          PAM = primary automation manager

System            ==> KEY4          System name, domain id or sysplex name

Command ==>
PF1=Help      PF2=End      PF3=Return      PF6=Roll
              PF12=Retrieve
    
```

Figure 43. INGAMS Command Dialog Panel 2

Showing Details about the Automation Manager

When you enter command code B for an automation manager, a panel similar to the following is displayed:

```

INGKYAM3          SA OS/390 - Command Dialogs      Line 1 of 18
Domain ID = IPSFO  ----- INGAMS -----      Date = 12/10/99
Operator ID = NETOP1      Sysplex = KEY1PLEX      Time = 12:27:18

Automation Manager : KEY3$$$$1      running on system : KEY3
Operation mode     : PAM
Status            : READY
XCF-Groupname     : INGXSJ

Logic Deck ...
Release           : V2R1M0
Date built        : 3 Dec 1999
Time built        : 12:17:47
Last APAR         : NONE

Config dataset name : SATEST.TEST.IPUFM.PROD.ACF
Config member      : HSAZ997
                  Z999CLGC STRUCTURE 19991203152922
                  Z997CSCH SCHEDULE  19991209142557
                  Z997CRES STRUCTURE  19991209142557

Command ==>
PF1=Help      PF2=End      PF3=Return      PF6=Roll
              PF8=Forward  PF9=Refresh   PF12=Retrieve
    
```

Figure 44. INGAMS Command Dialog Panel 3

Refreshing the Configuration Data Sysplex-wide

When you enter command code C for an automation manager, a panel similar to the following panel is displayed

```

INGKYAM2                SA OS/390 - Command Dialogs
Domain ID = IPSFO      ----- INGAMS -----      Date = 12/10/99
Operator ID = NETOP1   Sysplex = KEY1PLEX          Time = 13:59:51

Specify or revise the following data:

Configuration data set name (* for current data set)

          *(-1)_____

System      ==> _____ System name, domain id or sysplex name

Command ==>
PF1=Help    PF2=End    PF3=Return

                                PF6=Ro11
                                PF12=Retrieve

```

Figure 45. INGAMS Command Dialog Panel 4

- In the System field specify the name of the system where the automation manager resides. Specifying this is only necessary if the automation manager is not within the local sysplex. You can specify either the system name, the domain, or the sysplex name.
- In the Configuration data set name field specify the name of the data set containing the automation manager configuration members. The name can be a fully qualified data set name or a generation data group name. You can use * to indicate a reload of the configuration from the data set that was used previously, or a different generation of the previously used GDG.

INGAUTO

Purpose

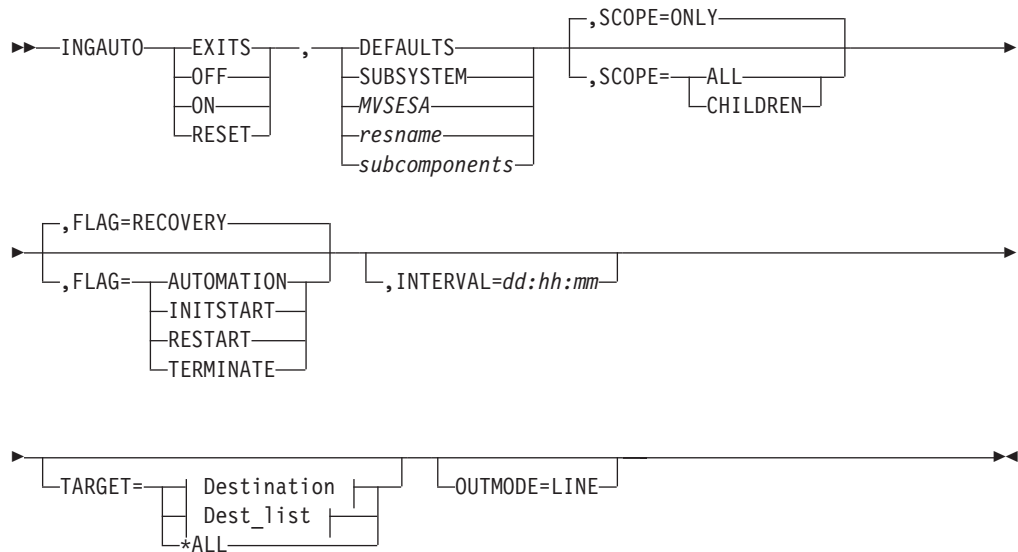
The INGAUTO command lets you turn the automation flags on or off for a specific resource, or for DEFAULTS, MVSESA or SUBSYSTEM for a specified time period after which they will automatically be turned on again. INGAUTO enables you to change a resource's assist mode settings.

Information for msys for Operations users

INGAUTO ON MVSESA.*function_qualifier* enables an msys for Operations function.

INGAUTO OFF MVSESA.*function_qualifier* disables an msys for Operations function.

Syntax



Destination:



Dest_list:



Parameters

If you do not specify a subsystem, a menu is displayed on which you can specify the subsystem.

EXITS

Enables user exits for the flag you specify.

OFF

Sets the automation flag you specify off.

ON

Sets the automation flag you specify on.

RESET

Resets the automation flag you specify to the values in your automation control file.

DEFAULTS

Specifies the value DEFAULTS. This sets automation flags for all resources that do not have their own flags defined.

SUBSYSTEM

Sets defaults for all subsystems.

MVSESA

Sets defaults for all MVS subcomponents.

rename

Specifies the name of a particular resource, for example, WTOBUF. You can specify any automated resource.

subcomponents

Specifies the subcomponents of the resource. Enter a period (.) between each subcomponent name.

SCOPE

Specifies whether to change automation for this resource and its dependent resources, dependent resources only, or this resource alone. Valid options are the following:

ONLY

Specifies this resource alone. This is the default.

ALL

Specifies this resource and its dependent resources.

CHILDREN

Specifies dependent resources only.

FLAG

Specifies the automation flags to set on, off, reset, or enable a user exit for, (depending on whether you specified INGAUTO ON, OFF, RESET or EXITS). Refer to *System Automation for OS/390 Customizing and Programming* for further information on automation flags. Valid options are the following:

AUTOMATION

This sets the Automation flag, which is the controlling flag. If you set the Automation flag OFF, SA OS/390 turns all automation off. If the Automation flag is ON, SA OS/390 checks the other flags.

INITSTART

Sets the Initstart flag.

START

Sets the Start flag.

RECOVERY

Sets the Recovery flag.

TERMINATE

Sets the Shutdown flag.

RESTART

Sets the Restart flag.

INTERVAL=dd:hh:mm

Specifies the period of time the flag will be changed for.

At the end of the interval, the flag is reset to the state defined in the automation control file.

If no interval is specified, the flag is changed indefinitely.

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

INGAUTO

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The INGAUTO command can only be used when SA OS/390 is initialized.

Usage

If the Automation flag is currently set to off, and you have changed one of the other flags, your change will not be effective until the Automation flag is set on. Occurrences will be detailed in the netlog.

If you have selected EXITS for an automation flag, and none have been specified in your automation control file, automation will be set to on. Occurrences will be detailed in the netlog.

SCOPE=ONLY is the only valid scope for DEFAULTS, resource type, and subcomponents. ALL and CHILDREN are not valid.

Make sure you specify the correct subcomponent name. Even if you specify a subcomponent that does not exist, the message FUNCTION SUCCESSFULLY COMPLETED will appear.

Examples

To turn all automation on in SA OS/390 for TSO, and for 2 hours only, type the following:

```
ingauto on,tso,flag=automation,interval=00:02:00
```

To turn all automation on for the WTOR buffer shortage recovery, type the following:

```
ingauto on,mvsesa.wto
```

INGCF

Purpose

The INGCF command comprises all the functions of SA OS/390 that deal with coupling facilities. It can be called in full mode and in line mode. If it is called in line mode, only the display functions are available..

INGCF contains several subcommands each of which will be described under a separate heading. They are:

- Drain
This subcommand serves to remove all allocated structures from the CF and to disconnect the CF from the systems of the sysplex.
- Enable
This subcommand serves to connect a CF with the systems of a sysplex and to populate it with structures.
- Path
This subcommand displays the sender paths of the target CF.
- Structure

With this subcommand, you can display detail information and rebuild or delete a selected structure on the target CF.

INGCF associates a status with every CF, and a condition with every structure (instance) that is allocated on the target CF; the structure condition is influenced by the release level of the system that allocated the structure. The subcommands of INGCF use the CF state and the structure conditions to determine which action can be performed in any given situation. In this way, the subcommands DRAIN and ENABLE can enforce a correct sequence of actions for complex tasks such as draining or restoring a CF.

You initiate an action through a PF key from a subcommand panel. When an action affects the sysplex configuration it must be confirmed before execution.

Authorizations

The actions you can initiate with the subcommands of INGCF depend on your authorizations. You can see your authorization type on the right upper corner of the subcommand panels. Note that the authorization types refer to the actual subcommand, and that your authorization type can be different for different subcommands.

The following authorization types exist:

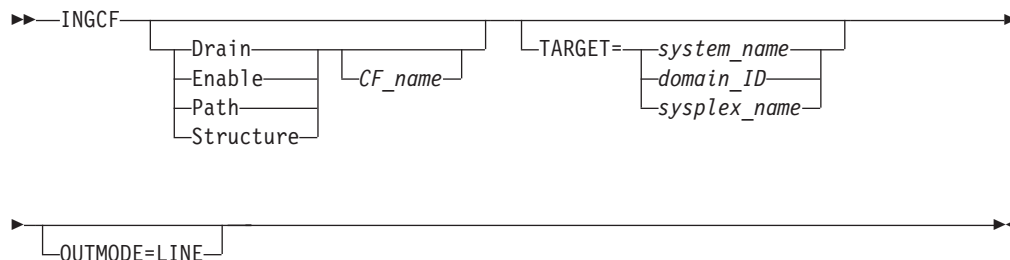
DISPLAY

You cannot initiate any action that affects the sysplex configuration.

ALL You can initiate all actions that can be initiated from the respective panel.

The authorization types refer to the actual panel. Thus, it is possible that you have, for example, authorization type ALL for the STRUCTURE subcommand, and authorization type DISPLAY for the DRAIN subcommand.

Syntax



Parameters

subcommand

The subcommands are:

Drain Prepares a CF for removal from the sysplex.

Enable
(Re)integrates a CF into a sysplex.

Path Displays the sender paths of a CF.

Structure

Offers manipulation of individual structures (detail information, rebuild, deletion).

CF_name

Name of the target CF for the specified subcommand. The default is a selection panel that shows all available coupling facilities of the sysplex.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and limitations

- The ENABLE and the PATH subcommands require that the active IODF be catalogued. Otherwise, sender path information cannot be retrieved in certain situations.
- INGCFCF ENABLE assumes that the receiver paths from the CF to the systems of the sysplex have been defined and activated. This requires a POR of the CPC on which the CF resides.

Coupling facility states

The status of a coupling facility can be as follows:

ACTIVATING

The CF is being activated and will become DRAINED shortly.

DEACTIVATING

The CF is being deactivated and will become INACTIVE shortly.

DRAINING

The coupling facility is being disconnected from the connected systems.

DRAINED

The coupling facility has no connection to any system and can be removed from the sysplex.

DRAINED NOSCLP

The coupling facility has no connection to any system, but cannot be removed from the sysplex because the SCLP interface is not available.

Note: This status is also displayed when the CF has been deactivated from the HMC (Hardware Management Console) but the XCF display commands still return the name of the CF.

ENABLING

The CF is being connected to the systems of the sysplex that use it.

FORCING

Allocated structures are being deleted from the coupling facility. This only happens with structures that have no active connectors, and with these only when they cannot be rebuilt by system-managed rebuild.

INACTIVE

The CF is not active.

INACTIVE NOSCLP

The CF is not active and cannot be activated because the SCLP interface is not available.

NORMAL

The coupling facility may have allocated structures and is connected to all systems.

NORMAL OFFLINE

The coupling facility may have allocated structures. At least one system has set all its sender paths to this CF to OFFLINE. XES will reject any rebuild request for this CF.

NOTINPOLICY

The CF is active but not defined in the active CFRM policy.

POPULATING

The CF is being populated with all those structures that have it on the first place in their preference list.

REBUILDING

Either all allocated structures that can be rebuilt are being removed from the CF by the XES rebuild process (initiated by the DRAIN subcommand), or one particular such structure is being removed (initiated by the STRUCTURE subcommand).

Structure conditions

The condition of an allocated structure can be:

Rebuild is not supported.

The structure can neither be rebuilt, nor can its deletion be forced.

The structure has at least one active connector that does not support user-managed rebuild, and at least one active connector that does not support system-managed rebuild.

System-managed processes not supported.

The structure cannot be rebuilt, nor can its deletion be forced.

System-managed rebuild, which is a system-managed process, is not possible for one of the following reasons:

- The structure was allocated from a system with OS/390 2.7 or below.
- The CFRM couple data sets have not been formatted to support system-managed processes (ITEM NAME(SMREBLD) NUMBER(1) was not specified.).

Note: In certain rare cases system-managed processes are not supported although the condition that is displayed on the DRAIN panel seems to indicate the contrary. Then, the rebuild will be initiated, but will fail with message IXC367I indicating that system-managed processes are not supported for the structure.

No alternate coupling facility defined or available.

The structure can neither be rebuilt, nor can its deletion be forced.

The structure has an active connector and supports rebuild but has no alternate coupling facility defined in its preference list, or the alternate CFs defined in the preference list are currently unavailable.

Insufficient space detected for rebuild.

The structure can or could not be rebuilt. Its deletion cannot be forced.

No alternate CF has enough space to rebuild the structure.

Preference list is empty.

The structure cannot be rebuilt at the moment since its preference list is currently empty. A possible reason for this is a pending policy change; for pending policy changes, see “P column” on page 115.

Structure is pending deallocation.

XES accepted a forced deletion of the structure but does the real deallocation later.

Note: This status can only occur when MVS APAR OW39404 has not been installed.

Structure is being rebuilt.

The structure is being rebuilt to another coupling facility.

Duplex rebuild is being stopped.

Two instances of the structure were maintained on different CFs. The application is being disconnected from that instance that is allocated on the target CF. After disconnecting, the instance is deleted.

No connection exists.

The structure cannot be rebuilt, but you can force its deletion.

The structure has no connections and cannot be rebuilt with system-managed rebuild.

No alternate CF for structure with no connections.

The structure cannot be rebuilt, but you can force its deletion.

The structure has no connections. It could be rebuilt with system-managed rebuild, but no alternate CF is defined in its preference list or available.

No alternate CF for structure with no active connections.

The structure cannot be rebuilt, but you can force its deletion.

The structure has only DISCONNECTING, FAILED, or FAILED-PERSISTENT connections. It could be rebuilt with system-managed rebuild, but no alternate CF is defined in its preference list or available.

The structure's initial size is less than its actual size.

The structure can be rebuilt, but this can lead to loss of data.

An initial size is specified for the structure in the active CFRM policy. This initial size was used for the allocation of the structure. Afterwards, the size of the structure was increased either by the application itself or an operator command. However, the structure will only be rebuilt with its initial size. Subsequently, INGC will expand the structure to its actual size again, but this will happen *after* the data have been transferred. To avoid a potential loss of data, the application has to change the initial size to the actual size.

No active connection exists.

The structure cannot be rebuilt, but you can force its deletion.

The structure has only DISCONNECTING, FAILED, or FAILED-PERSISTENT connections and cannot be rebuilt with system-managed rebuild.

Attention!

INGCF DRAIN deallocates structures with this condition as part of the REBUILD action (see “REBUILD (F10)” on page 105). INGCF STRUCTURE accepts a rebuild request for structures with this condition, but deallocates them (see “Rebuild (R)” on page 114).

No connections. System-managed rebuild supported.

The structure can be rebuilt.

The structure has no connections, but can be rebuilt with system-managed rebuild.

No active connections. System-managed rebuild supported.

The structure can be rebuilt with system-managed rebuild.

User-managed rebuild is not possible for the structure because it has only DISCONNECTING, FAILED, or FAILED-PERSISTENT connections.

System-managed rebuild is supported

The structure can be rebuilt.

The structure has active connectors. At least one active connector does not support user-managed rebuild, but all active connectors support system-managed rebuild.

Duplex rebuild is active.

The application is connected to two instances of the same structure on different coupling facilities.

[No condition]

When no condition is displayed, the structure can be rebuilt.

The structure has at least one active connection, and all its active connectors support user-managed rebuild.

Structure is awaiting rebuild.

The structure has been selected for rebuild but has not been processed yet.

Structure is currently allocated on *cf_name*.

The structure can be rebuilt on the target CF with the POPULATE action of the ENABLE subcommand. It is currently allocated on the *cf_name* CF, but the target CF precedes *cf_name* in the structure’s preference list. This condition is displayed only in the ENABLE command dialog.

Example

When you call INGCF without any parameters, a panel with all CFs of the sysplex will be displayed:

```

INGLX900          SA OS/390 - Command Dialogs          Line 1 of 3
Domain Id = IPSFO ----- INGC -----              Date = 02/23/01
Operator Id = SCHR                                     Time = 13:42:35

Sysplex . . . . . : KEY1PLEX          SM process level . : 9
-----
Cmds: D drain CF / E enable CF / P display sender paths / S display structures

  CF Name   Total Space  Free Space  Free%  Volatile  CF level
-----
- CF01      378112 K    257792 K  68.18   YES       9
- CF02      378112 K    308992 K  81.72   YES       9

Command ==>
F1=Help      F2=End          F3=Return      F6=Roll
              F9=Refresh      F12=Retrieve
    
```

Figure 46. INGC selection panel

Here, you specify a subcommand for a selected CF and press ENTER to call the panel of the respective subcommand.

DRAIN Subcommand

Purpose

The DRAIN subcommand of INGC facilitates the removal of a CF from the sysplex, for example, for maintenance purposes. With this option, you can perform the following sequence of tasks:

1. Display information for all allocated structures of the CF.
2. Rebuild all rebuildable structures on *another* CF, and delete instances of structures on the target CF that are being duplexed on another CF.

Notes:

- a. The scope of the structures that can be rebuilt depends on the release level of the sysplex members.
 - b. INGC DRAIN rebuilds structures one at a time (SETXCF START,REBUILD,STRNAME=), not globally (SETXCF START,REBUILD,CFNAME=), and always on a CF that is different from the target CF (LOCATION=OTHER).
 - c. Generally, you should be aware that it is XES that performs the actual rebuild. Not all of the factors that XES takes into account when allocating a structure are accessible to SA OS/390. Therefore, a rebuild request for a structure that should be rebuildable according to its condition can fail in certain rare cases.
3. Force the deletion of structures that have no active connectors and cannot be rebuilt.

Note that there are structures that you can neither rebuild nor delete with the force action. These include the structures that have at least one active connector and do not support rebuild. To remove such structures first disconnect all active connectors, and then delete the structure manually if it is persistent or has persistent connections.

4. Disconnect the CF from the systems with which it is connected

INGCF DRAIN ensures that these actions are performed in the correct order, as specified above.

Actions

The possible actions and the associated PF keys are:

REBUILD (F10)

Starts the rebuild of structures that can be rebuilt on *another* CF. Thus, a rebuild is only initiated for structures whose preference list contains more than one CF.

There are two methods for rebuild, user-managed and system-managed rebuild. User-managed rebuild is supported for all release levels. System-managed rebuild is only available with systems that have OS/390 2.8 or above; it must have been enabled by formatting the CFRM couple data sets with the specification

```
ITEM NAME(SMREBLD) NUMBER(1)
```

System-managed rebuild is only performed when the requirements for user-managed rebuild are not met. This applies, for example, to structures without active connectors.

The REBUILD action also deletes all structure instances on the target CF that are being duplexed on another CF.

Attention!

The REBUILD action *deallocates* structures with the condition 'No active connection exists.'. See "No active connection exists" on page 102.

FORCE (F5)

Forces the deallocation of structures with one of the following conditions:

- No connection exists.
- No alternate CF for structure with no active connections.
- No alternate CF for structure with no connections.

This action is only made available after all structures that can be rebuilt have been rebuilt.

DRAIN (F4)

Disconnects the coupling facility from its connected systems by setting the sender path(s) OFFLINE.

This action is only enabled after all structures of the target CF have been removed to another CF or deallocated. Note that structures that have active connectors but do not support rebuild cannot be removed with F10 or F5. They must be deallocated manually before execution of this step is enabled.

Note that these actions can only be performed when INGC F DRAIN is called in full mode. In line mode, only the display function is available.

To avoid performance degradation due to multiple rebuild processes, or unpredictable results due to multiple executions of an action, all actions are locked.

INGCF DRAIN

As a consequence, an action is rejected if any lock exists even if the action does not affect the action currently being performed. Because the action can take a long time it is also executed asynchronously on a dedicated autotask, preventing the operator from being blocked. To check progress, use the refresh function (F9).

Example

In the following example, a CF is drained in three steps:

1. All of its structures that can be rebuilt are rebuilt on another CF, and duplexing is stopped.
2. For all structures that have no active connector and cannot be rebuilt deletion is forced.
3. All systems that are connected with the CF are disconnected.

When you call INGCDF with the option DRAIN, you can specify the CF to be drained in your call, for example by entering INGCDF DRAIN CF01; in this case, the panel of Figure 47 will be displayed at once. If you do not specify a CF name, INGCDF presents a selection panel with all CFs that are defined in the sysplex. After selection of CF01, INGCDF displays the following panel:

```
INGLX901          SA OS/390 - Command Dialogs      Line 1 of 31
Domain Id = IPSFO  ----- INGCDF DRAIN -----      Date = 02/13/01
Operator Id = SCHR                                     Time = 07:01:00

Coupling Facility ==> CF01          Status . . . . . : NORMAL
Sysplex . . . . . ==> KEY1PLEX      Permission . . . . . : ALL
-----
Structure          Condition
-----
DFHXQLS_TESTTSQ1  No active connections. System-managed rebuild supported.
DSNG_LOCK1
DSNG_SCA          System-managed rebuild is supported.
ISGLÖCK
ISTGENERIC
IXCGRS
IXCPLX_PATH1
M7SG_LOCK1        *No alternate CF for structure with no active connections.
M7SGEMHQ          No active connections. System-managed rebuild supported.
M7SGMSGQ          No active connections. System-managed rebuild supported.
M7SGMSGQOV        No active connections. System-managed rebuild supported.

Command ==>
F1=Help          F2=End          F3=Return          F6=Roll
                  F8=Forward      F9=Refresh        F10=Rebuild      F12=Retrieve
```

Figure 47. DRAIN command dialog: panel before any action

The status of the CF (NORMAL) and the authorization type of the operator (ALL) are displayed on the right side of the panel header. The main part of the panel consists of a list containing the structures allocated in CF1 and their conditions. The conditions are classified by color and an asterisk. The asterisk signifies that a structure cannot be rebuilt.

The only action that is enabled is REBUILD with F10. Pressing F10 calls the following confirmation panel:

```

INGLX92R          SA OS/390 - Command Dialogs
Domain Id   = IPSFO   ----- INGCF DRAIN -----
Operator Id = SCHR
Date = 02/13/01
Time = 07:01:04

Coupling Facility . : CF01
Sysplex . . . . . : KEY1PLEX

                R E B U I L D Confirmation

The REBUILD process runs asynchronously on the next system in the sysplex that
has access to the CFRM couple data set and can perform all necessary actions.
Each structure that has no * indicator in front of its status is rebuilt to its
status accordingly. The structures are processed in sequence. Once started use
the refresh PF key for getting the current status of the process. When more
than one structure is being rebuilt a timeout occurred indicating that XCF is
very busy. But processing continues. A display without any structure or only
structures that cannot be rebuilt indicates a successful completion.

Command ==>
                F2=End          F3=Return          F10=Go          F6=Roll
                F11=Cancel     F12=Retrieve
    
```

Figure 48. DRAIN command dialog: confirmation panel for REBUILD

After F10 has been pressed and the rebuild has been completed the command dialog can be refreshed with F9. It now looks as follows:

```

INGLX901          SA OS/390 - Command Dialogs          Line 1 of 1
Domain Id   = IPSFO   ----- INGCF DRAIN -----          Date = 02/13/01
Operator Id = SCHR                                          Time = 07:53:36

Coupling Facility ==> CF01          Status . . . . . : NORMAL
Sysplex . . . . . ==> KEY1PLEX          Permission . . . . : ALL
-----
Structure          Condition
-----
M7SG_LOCK1        *No alternate CF for structure with no active connections.

Command ==>
F1=Help          F2=End          F3=Return          F5=Force          F6=Roll
F9=Refresh
    
```

Figure 49. DRAIN command dialog: panel after rebuild

One structure could not be rebuilt because no alternate CF is specified in its preference list. The REBUILD action is no longer available. Instead, the FORCE action (F5) is offered because the structure that could not be rebuilt has a condition that allows forcing the deallocation of the structure. Pressing F5 calls a confirmation panel similar to that for REBUILD. Pressing F10 on the confirmation

INGCF DRAIN

panel and refreshing the command dialog after the action has been completed results in the following panel:

```
INGLX901          SA OS/390 - Command Dialogs      Line
Domain Id   = IPSFO      ----- INGCF DRAIN -----      Date = 02/13/01
Operator Id = SCHR                               Time = 08:12:28

Coupling Facility ==> CF01          Status . . . . . : NORMAL
Sysplex . . . . . ==> KEY1PLEX      Permission . . . . . : ALL
-----
Structure      Condition
-----

Command ==>
F1=Help      F2=End      F3=Return      F4=Drain      F6=Roll
              F9=Refresh                                F12=Retrieve
```

Figure 50. DRAIN command dialog: panel after forcing

Now, no more structures are allocated in the CF, so that the CF can be released from the connections with the systems of the sysplex. Consequently, INGC F DRAIN enables the DRAIN action (F4). After completion of that action, the status of the CF changes to DRAINED, as shown on the following panel:

```
INGLX901          SA OS/390 - Command Dialogs      Line
Domain Id   = IPSFO      ----- INGCF DRAIN -----      Date = 02/13/01
Operator Id = SCHR                               Time = 08:12:32

Coupling Facility ==> CF01          Status . . . . . : DRAINED
Sysplex . . . . . ==> KEY1PLEX      Permission . . . . . : ALL
-----
Structure      Condition
-----

Command ==>
F1=Help      F2=End      F3=Return      F6=Roll
              F9=Refresh                                F12=Retrieve
```

Figure 51. DRAIN command dialog panel: panel after draining

Now that the CF has been released from all connections with the sysplex members, it can be inactivated. This must be done manually.

ENABLE Subcommand

Purpose

The ENABLE subcommand of the INGCDF command is intended to support the (re)integration of a CF into a sysplex. With this option, you can

1. Connect the systems of the sysplex with the coupling facility.
2. Switch to another CFRM policy if the target CF is not defined in the active policy and a suitable policy is available.
A suitable CFRM policy must contain:
 - A definition of the target CF
 - Appropriate definitions for every active CF and every allocated structure
3. Rebuild all structures on the target CF whose preference list starts with this CF, unless this is excluded by other requirements.

INGCF ENABLE ensures that these actions are performed in the correct order, as specified above.

Actions

The possible actions and the associated PF keys are:

ENABLE (F4)

Sets the sender path(s) of all systems of the sysplex to ONLINE. This action is enabled when the CF is active.

SWITCH (F5)

Switches to another CFRM policy when the target CF is not defined in the active CFRM policy and a suitable policy is available. When there is more than one suitable policy you can choose one of these from a selection panel.

A CFRM policy is suitable when it contains:

- A definition of the target CF
- Definitions for every active CF and every allocated structure

This action is only made available when the target CF is active, but not defined in the current CFRM policy.

POPULATE (F10)

Starts a rebuild process by which all structures that have the target CF at the beginning of their preference list but are currently allocated on another CF are allocated on the target CF.

This action requires that the CF be enabled, connected to all members of the sysplex, and defined in the current CFRM policy. The action is offered whenever INGCDF ENABLE detects that a structure is not allocated on the target CF although it is the preferred CF of that structure.

Note: When you have drained a CF with INGCDF DRAIN and then reintegrate it with INGCDF ENABLE, be aware that the set of structures that are allocated on the target CF after population can be different from the original set before the draining. Typically, this happens when the original set does not contain exactly those structures that have the target CF at the first position in their preference list.

INGCF ENABLE

Note that these actions can only be performed when INGC F ENABLE is called in full mode. In line mode, only the display function is available.

Example

In the following example, a CF that has already been activated is reintegrated into the sysplex in two steps:

1. The CF is connected to all systems of the sysplex.
2. All structures that have the target CF as the first CF in their preference list are allocated on the target CF.

When you call INGC F with the option ENABLE, you can specify the CF to be reintegrated in your call, for example by entering INGC F ENABLE CF02; in this case, the panel of Figure 52 will be displayed at once. If you do not specify a CF name, INGC F presents a selection panel with all CFs that are defined in the sysplex. After selection of CF02, INGC F displays the following panel:

```
INGLX901          SA OS/390 - Command Dialogs          Line
Domain Id = IPSF0 ----- INGC F ENABLE -----      Date = 02/20/01
Operator Id = SCHR                                         Time = 11:06:06

Coupling Facility ==> CF02          Status . . . . . : DRAINED
Sysplex . . . . . ==> KEY1PLEX      Permission . . . . : ALL
-----
Structure          Condition
-----
-----

Command ==>
F1=Help          F2=End          F3=Return      F4=Enable          F6=Roll
F9=Refresh                                     F12=Retrieve
```

Figure 52. ENABLE command dialog: panel before any action

The selected CF has already been activated manually, therefore its status, as shown on the right side of the panel header, is DRAINED. The authorization type of the operator (ALL) is also displayed on the right side of the panel header. The main part of the panel is empty because no structures are allocated in CF02. The only action that is activated is ENABLE with F4. Pressing F4 calls the following confirmation panel:

```

INGLX92E          SA OS/390 - Command Dialogs          Date = 02/20/01
Domain Id   = IPSFO          ----- INGCF ENABLE -----   Time = 11:06:20
Operator Id = SCHR

Coupling Facility . : CF02
Sysplex . . . . . : KEY1PLEX

                E N A B L E Confirmation

The ENABLE process runs asynchronously on the next system in the Sysplex that
has access to the CFRM couple data set. All sender paths of all system in the
sysplex are set to ONLINE. Once started use the refresh PF key for getting
the current status of the process. The status NORMAL indicates a successful
completion.

Command ==>
                F2=End          F3=Return          F6=Roll
                F10=Go         F11=Cancel   F12=Retrieve

```

Figure 53. Confirmation panel for ENABLE

After pressing F10 on the confirmation panel, the command dialog changes as follows:

```

INGLX901          SA OS/390 - Command Dialogs          Line 1 of 3
Domain Id   = IPSFO          ----- INGCF ENABLE -----   Date = 02/20/01
Operator Id = SCHR          Time = 11:06:39

Coupling Facility ==> CF02          Status . . . . . : NORMAL
Sysplex . . . . . ==> KEY1PLEX      Permission . . . . : ALL
-----
Structure      Condition
-----
GRPYCSQ_ADMIN  Structure is currently allocated in CF01.
GRPYHSAQUEUE   Structure is currently allocated in CF01.
HSA_LOG        Structure is currently allocated in CF01.

Command ==>
F1=Help      F2=End          F3=Return          F6=Roll
F9=Refresh   F10=Populate     F12=Retrieve

```

Figure 54. ENABLE command dialog: panel after enabling

The status has changed to NORMAL, and the action key that is offered is F10, for populating the CF. This implies that the target CF is defined in the active CFRM policy. If this were not the case, the new state would have been NOTINPOLICY, and if a suitable policy were available, the action key F5 for a policy switch would have been offered.

INGCF ENABLE

The structure list contains three entries with the condition 'Structure is currently allocated in CF01.'. These are the structures that are currently allocated in CF01, but have CF02 at the first position in their preference list.

Pressing F10 now populates the CF, and the refreshed panel will look as follows:

```
INGLX901          SA OS/390 - Command Dialogs      Line 1 of 3
Domain Id = IPSFO  ----- INGCF ENABLE -----      Date = 02/20/01
Operator Id = SCHR                                     Time = 11:17:35

Coupling Facility ==> CF02          Status . . . . . : NORMAL
Sysplex . . . . . ==> KEY1PLEX      Permission . . . . . : ALL
-----
Structure          Condition
-----
GRPYCSQ_ADMIN      System-managed rebuild is supported.
GRPYHSAQUEUE       System-managed rebuild is supported.
HSA_LOG

Command ==>
F1=Help           F2=End           F3=Return        F6=Ro11
                  F9=Refresh       F12=Retrieve
```

Figure 55. ENABLE command dialog panel: panel after populating

The POPULATE action is no longer available because all structures whose preference list starts with CF02 are now allocated in CF02.

PATH Subcommand

Purpose

The INGCF PATH subcommand displays the sender paths, that is, the paths from the connected systems to the specified coupling facility.

Example

```

INGLX903          SA OS/390 - Command Dialogs      Line 1   of 4
Domain Id   = IPSFO      ----- INGCF PATH -----      Date = 02/23/01
Operator ID = SCHR                               Time = 09:50:00

Coupling Facility ==> CF02
Sysplex . . . . . ==> KEY1PLEX
-----
System   CHPID  Physical          Logical  Type
-----
KEY1     85     ONLINE             ONLINE  CFS
KEY2     85     ONLINE             ONLINE  CFS
KEY3     85     ONLINE             ONLINE  CFS
KEY4     09     ONLINE             ONLINE  CFS

Command ==>
F1=Help      F2=End          F3=Return      F6=Roll
              F9=Refresh      F12=Retrieve

```

Figure 56. PATH subcommand dialog panel

- When you have called INGCF with the PATH parameter, the **Coupling Facility** field is an input field. In this case you can call the path list of another CF by specifying the name of the CF in this field and pressing the ENTER key.
- The **System** column contains the names of the systems that are connected to the target CF.
- The **CHPID** column shows the IDs of the sender channel paths.
- The **Physical** column shows the status of the sender channel paths.
- The **Logical** column shows the logical status of the paths to that CF.
- The **Type** column shows the type of the sender channel paths.

STRUCTURE Subcommand**Purpose**

The STRUCTURE subcommand of the INGCF displays the allocated structures of a coupling facility. You can initiate a rebuild or deallocation of a selected structure if the conditions for these actions are satisfied.

Actions

The possible actions and the associated codes are:

Display Details (D)

This action displays detail information about the structure.

Force (F)

This action forces the deallocation of the structure if it has one of the following conditions:

- No connection exists.
- No alternate CF for structure with no active connections.
- No alternate CF for structure with no connections.

INGCF STRUCTURE

When you try to force the deallocation of a structure that can be rebuilt, an error message is issued.

Rebuild (R)

Starts the rebuild of the selected structure on *another* CF. Thus, a rebuild is only initiated for structures whose preference list contains more than one CF.

There are two methods for rebuild, user-managed and system-managed rebuild. User-managed rebuild is supported for all release levels. System-managed rebuild is only available with systems that have OS/390 2.8 or above; it must have been enabled by formatting the CFRM couple data sets with the specification

```
ITEM NAME(SMREBLD) NUMBER(1)
```

System-managed rebuild is only performed when the requirements for user-managed rebuild are not met. This applies, for example, to structures without active connectors.

For structures that are being duplexed on another CF, the REBUILD action deletes the structure instance on the target CF.

Attention!

INGCF STRUCTURE accepts a rebuild request for structures with the condition 'No active connection exists.', but *deallocates* them. See "No active connection exists" on page 102.

Example

```
INGLX904          SA OS/390 - Command Dialogs      Line 1 of 3
Domain ID  = IPSFO      ----- INGC F STRUCTURE -----   Date = 02/23/01
Operator ID = SCHR                               Time = 10:08:37

Coupling Facility ==> CF02
Sysplex . . . . . ==> KEY1PLEX          Permission . . . . . : ALL
Include condition ==> YES (Yes/No - Condition retrieval takes longer)
-----
Cmds: D display details / F force / R rebuild

  Structure      P Condition
-----
_ GRPYCSQ_ADMIN  P System-managed rebuild is supported.
_ GRPYHSAQUEUE   P System-managed rebuild is supported.
_ HSA_LOG

Command ==>
F1=Help      F2=End      F3=Return      F6=Roll
              F9=Refresh      F12=Retrieve
```

Figure 57. STRUCTURE dialog panel

The panel fields have the following meaning:

INGCF STRUCTURE

- When you have called INGCf with the STR parameter, the **Coupling Facility** field is an input field. In this case you can call the structure list of another CF by specifying the name of the CF in this field and pressing the ENTER key.
- The **Include Condition** field is an input field. By entering Yes or No in this field you determine whether or not the conditions of the structures are displayed in the **Structure** column.
- The **Permission** field shows your authorization level. There are two possible values, ALL and DISPLAY. DISPLAY signifies that you can only use the display functions. ALL signifies that you can also rebuild and delete structures.
- You can specify an action code before every structure entry. The codes you can enter depend on your authorization level
- The **Structure** column shows the names of the structures.
- The letter P in the **P** column indicates that policy changes are pending for the structure.

A structure has policy changes pending when it was allocated at the time of a CFRM policy switch, and XES could not bring the switch into effect for that structure. One reason for a pending policy change is that the old and the new policy define the structure differently, for example, with different preference lists.

Note: You can resolve pending policy changes by rebuilding the structure. Because the rebuild action of INGCf STRUCTURE always results in moving the structure to another CF, you may prefer to issue the rebuild command from the command line as follows:

```
MVS SETXCF START,REBUILD,STRNAME=structure_name,LOCATION=NORMAL
```

Setting the LOCATION parameter to NORMAL has the effect that the structure is rebuilt in the first CF of the new preference list that fulfills all other requirements. In this case, the source and target CF can be identical.

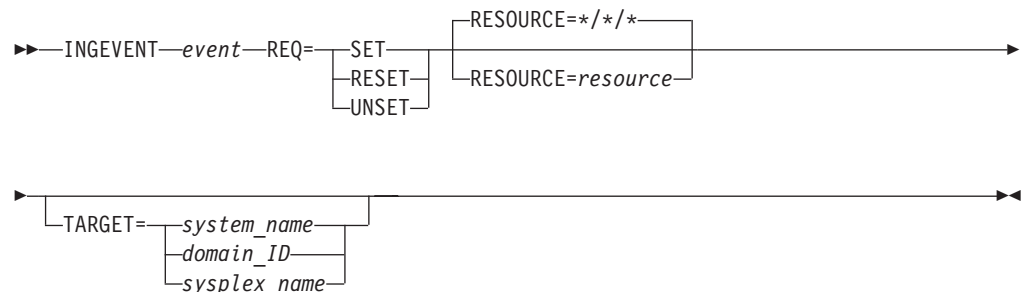
- The **Condition** column shows the status of the structures. You can switch on and off the display of the conditions through the **Include Condition** field.

INGEVENT

Purpose

The INGEVENT command sets or resets a particular event of all affected resources in a sysplex, or for the specified resources.

Syntax



INGEVENT

Parameters

event

Specifies the name of the event

REQ

Specifies the request to be performed. It can have the following values:

SET Sets the event for all resources having the event defined

RESET

Resets the event for all resources having the event defined

UNSET

Unsets the event for all resources having the event defined

RESOURCE

Specifies the name of the resource where INGEVENT should be effective. It can be abbreviated to RES. The format is *name/type[/system]*

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

Restrictions and Limitations

Wildcards are not supported.

Usage

The INGEVENT command operates sysplex-wide. For an overview refer to "Overview of Commands that Operate Sysplex-Wide" on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

To set an event for all resources that are linked to that event, type the following:

```
INGEVENT B000P100 REQ=SET
```

The command response is as follows:

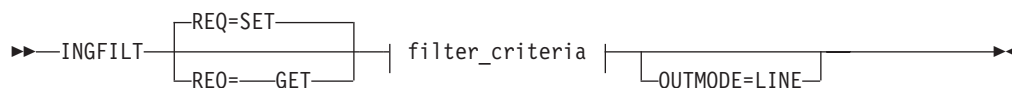
```
IPUFA    AOF442I SET EVENT B000P100 DONE FOR RESOURCE */*/ ON AOCPLX. -  
        FROM=AOCA  
IPUFA    AOF099I FUNCTION SUCCESSFULLY COMPLETED
```

INGFILT

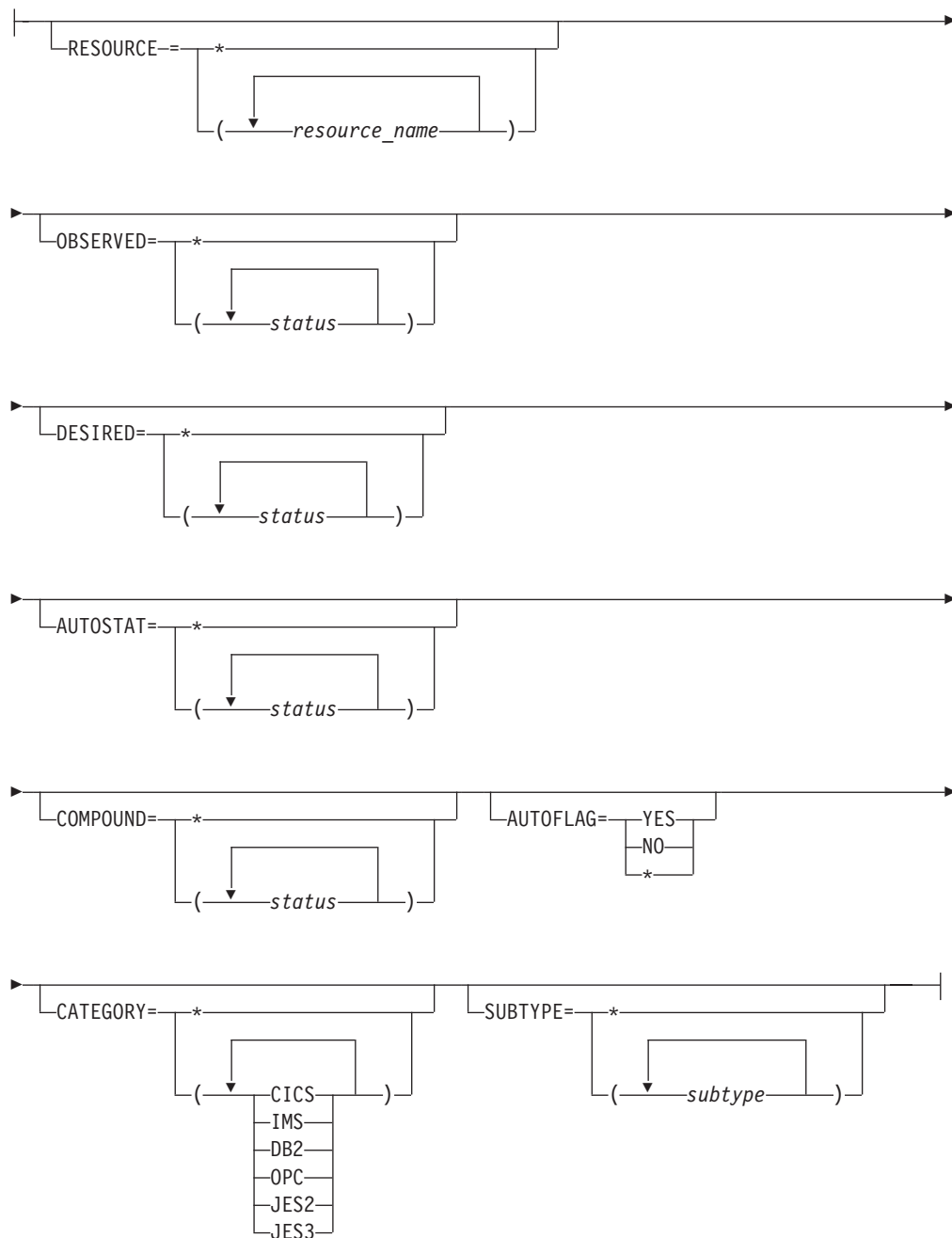
Purpose

The INGFILT command restricts the amount of information shown in the INGLIST display. Use INGFILT to set a default filter for the operator's logon. If an asterisk (*) is specified, then the filter is reset.

Syntax



filter_criteria:



Parameters

REQ
 Specifies the type of the request. The type can be:

INGFILT

- SET** Sets new filter settings. This is the default. If no filter parameter is specified when the command is invoked, the appropriate value of the current filter settings is taken.
- GET** Returns the current filter settings. Any filter parameter that is specified when the command is invoked will be added to the current filter settings.

filter_criteria

The filter criteria to be applied prior to displaying the data.

RESOURCE

Specifies the names of the resources to be displayed. The format is *name/type[/system]*. The resource names must be separated by a blank. Asterixes (*) can be used as wildcard characters.

OBSERVED

Specifies the observed statuses to be displayed. The statuses must be separated by a blank. It can be abbreviated, for example to AV for available. Also, you can specify an asterisk (*) to reset the current filter setting, for example, INGFILT OBSERVED=*.

DESIRED

Specifies the desired statuses to be displayed. The statuses must be separated by a blank. It can be abbreviated, for example to AV for available. Also, you can specify an asterisk (*) to reset the current filter setting, for example, INGFILT DESIRED=*.

AUTOSTAT

Specifies the automation status to be displayed. The statuses must be separated by a blank. It can be abbreviated, for example to ID for idle. Also, you can specify an asterisk (*) to reset the current filter setting, for example, INGFILT AUTOSTAT=*.

COMPOUND

Specifies the compound status. The statuses must be separated by a blank. It can be abbreviated, for example to SA for satisfactory. Also, you can specify an asterisk (*) to reset the current filter setting, for example, INGFILT COMPOUND=*.

AUTOFLAG

Specifies the automation flag to be displayed. It can be either **YES** or **NO** and can be abbreviated. Also, you can specify an asterisk (*) to reset the current filter setting, for example, INGFILT AUTOFLAG=*.

CATEGORY

Specifies the category that the resource belongs to. More than one value can be specified.

SUBTYPE

Specifies the subtype of the resource.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

None.

Usage

The INGFILT command can also be used when SA OS/390 is **not** initialized.

The INGFILT command lets you set filter options at operator logon from within the operator's initial clist.

Examples

If you type `ingfilt` a panel similar to the following is displayed:

```

INGKYFLT          SA OS/390 - Command Dialogs
Domain ID   = IPUFA   ----- INGFILT -----   Date = 07/24/00
Operator ID = NETOP1                                Time = 13:50:03

Specify or revise the filter criteria:

Resources...      format: name/type/system or *am*/*/*
  *

Observed Status ==> *
Desired Status  ==> *
Automation Status ==> *
Compound Status ==> *

Automation flag ==>                               Yes or No

Resource category ==> *
Resource subtype ==> *

Command ==>
PF1=Help  PF2=End  PF3=Return  PF4=Clear  PF5=Reset  PF6=Ro11
          PF9=Save                                PF12=Retrieve

```

Figure 58. INGFILT Command Dialog Panel

INGGROUP

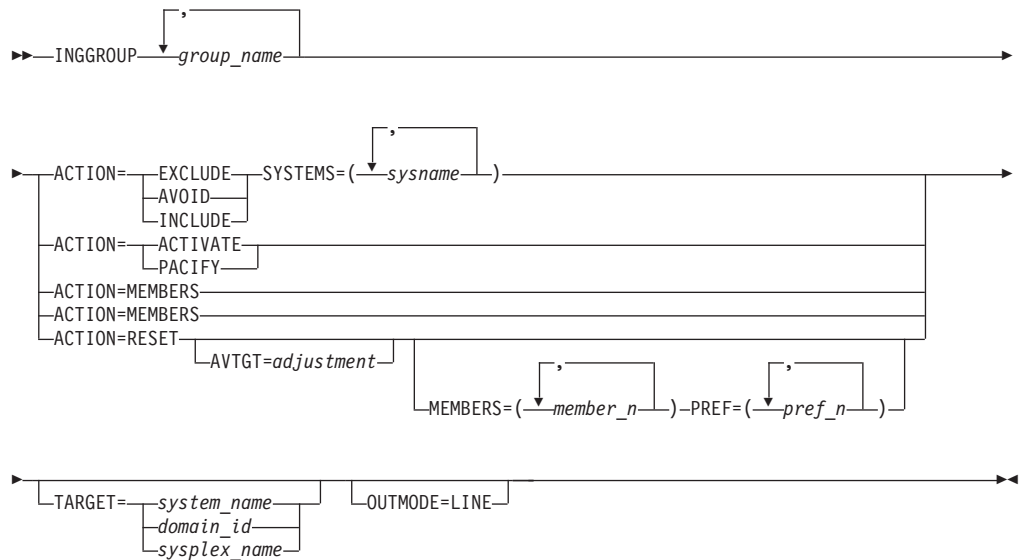
Purpose

The INGGROUP command displays the members of a group and their settings. INGGROUP can also be used to:

- Move an application from one system to another by terminating the application and starting it on a system of your choice
- Activate or deactivate a group
- Adjust the availability target (server group only)

INGGROUP

Syntax



Parameters

group_name

Is a list of application groups, possibly including wildcards that are to be the target of the command.

- For an ADJUST action specify only a single application group.
- For an AVOID/INCLUDE/EXCLUDE action, you may specify multiple application groups.
- For an ACTIVATE/PACIFY action, you may specify multiple application groups.
- For a MEMBERS action, you may specify only a single application group.

ACTION

Indicates that one wants to remove movable members from a system (EXCLUDE), prohibit the manager from activating movable members on a system (AVOID) or that one wishes to undo either of the other two actions (INCLUDE).

EXCLUDE

Removes resources immediately from the excluded systems. This acts to disruptively force resources from a system.

AVOID

No new resources will be moved to the system and those that are there will be removed as scheduled service outages permit. This would be used to gradually (and non-disruptively) remove resources from a system in preparation for (mainly to reduce the disruption from) an Exclude at a later point in time. Note, however, that if there is no other way to maintain/restore application availability that groups will choose to ignore avoidance policies.

INCLUDE

The movement of resources to the system depends on the relative

preferences of the resources on that system and on other systems. It is possible that the resources will not be moved to that system until the next scheduled service outage.

ACTIVATE

Changes the behavior of a group to active. If used on an already active group there is no effect. When a group becomes active it will distribute votes to all of its non-passive members reflecting its nature and goals. Making a group active may cause some of its members to be stopped or started.

PACIFY

Changes the behavior of a group to passive. If used on an already passive group there is no effect. When a group becomes passive, it withdraws all votes that it has propagated to its members. Making a group passive may cause some of its members to either start or stop, depending upon the votes that it had propagated.

ADJUST

Indicates that one wants to temporarily adjust a group's policy.

RESET

Causes to set the preference assigned to the members of the application group to its initial value. Applies only to MOVE and SERVER groups.

SYSTEMS

Is the list of systems to be excluded or included. If no groups are specified, then all application groups with resources upon these systems will be affected.

This parameter must be specified for INCLUDE, AVOID and EXCLUDE actions.

AVTGT

Specifies the availability target that is to be set for the group. The value, n, is a positive number. It specifies the number of group members that should be made available when the group has to be available.

You can also specify *, which resets the AVTGT parameter to the value that is specified in the policy database.

This parameter may only be specified on an ADJUST action.

MEMBERS

Specifies a list of group members, for which the preference value should be set. Wildcards may not be used.

This parameter may only be specified on an ADJUST action.

PREF

Specifies a preference value that is to be used for each specified member. The number of values specified should be the same as the number of members specified. Each preference is an integer value that replaces the member's current preference value. You can also specify *, which resets the PREF parameter to the value that is specified in the policy database.

Preference values are used to determine which members in the group are selected to make the group active.

This parameter may only be specified on an ADJUST action when a list of members has been specified.

INGGROUP

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

None.

Usage

The INGGROUP command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

To remove subsystems from the list of members that can be used, type the following:

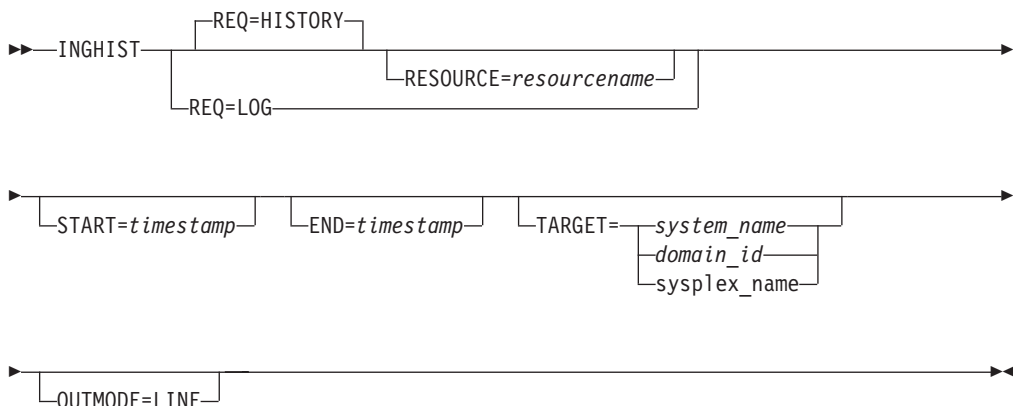
```
INGGROUP group1, TSO/APG ACTION=EXCLUDE
```

INGHIST

Purpose

The INGHIST command shows history information about the work item processed by the automation manager. It also lets you display messages that the manager issues to the system logger.

Syntax



Parameters

REQ

Specifies the request to be performed. It can have the following keywords:

HISTORY

Displays the workitem history. This is the default.

LOG Retrieves the messages written to the system logger by the automation manager.

RESOURCE

Specifies the name of the resource to be displayed. The format is *name/type[/system]*. The RESOURCE parameter can only be specified if REQ=HISTORY.

START

Is the start date, and optionally, end time for the display of the history data. The format is yyyy-mm-dd [hh:mm:ss]. If omitted, the history data from the last hour will be displayed, unless another limiting parameter (resource name) is specified. If you specify more than one value they must be enclosed by parentheses, or separated by a comma, for example, `inghist stdt000an1x start=(2000-03-10 08:00:00)` or `inghist stdt000an1x start=2000-03-10,08:00:00`.

END

Is the end date, and optionally, end time for the display of the history data. The format is yyyy-mm-dd [hh:mm:ss]. If you specify more than one value they must be enclosed by parentheses, or separated by a comma.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

To use INGHIST system operations does not have to be initialized.

Usage

The INGHIST command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

If you type `inghist resource=stdt000an1x/ap1/aoc7` a panel similar to the following will be displayed:

INGHIST

```
INGKYHI0          SA OS/390 - Command Dialogs          Line 1 of 15
Domain ID = IPUFM  ----- INGHIST -----             Date = 07/24/00
Operator ID = AFRANCK      Sysplex = AOC7PLEX          Time = 14:20:46

Start time ==>                format: yyyy-mm-dd hh:mm:ss
End time ==>                  Resource ==> STDT000ANIX/APL/AOC7

Cmd: + Expand workitem (e) - Collapse workitem (c)
Cmd Date      Time      Footprint
-----
2000-07-24 14:18:32 Termination processing for STDT000ANIX/APL/AOC7
                    completed
2000-07-24 14:18:30 Agent status for STDT000ANIX/APL/AOC7 = RESTART
2000-07-24 14:18:29 No PRESTART commands to issue
2000-07-24 14:18:29 Agent status for STDT000ANIX/APL/AOC7 = AUTODOWN
2000-07-24 14:18:27 Shutdown in progress
2000-07-24 14:18:25 Startup for STDT000ANIX/APL/AOC7 in progress
2000-07-24 14:18:24 Agent status for STDT000ANIX/APL/AOC7 = AUTOTERM
2000-07-24 14:18:23 Agent status for STDT000ANIX/APL/AOC7 = STARTED
2000-07-24 14:18:20 No SHUTDOWN commands to issue

Command ==>
PF1=Help      PF2=End      PF3=Return      PF6=Ro11
```

Figure 59. INGHIST Command Dialog Panel

The FIND/RFIND subcommands are supported. Refer to “Deciding the Format of the Command Output (Full-Screen only)” on page 13 for information.

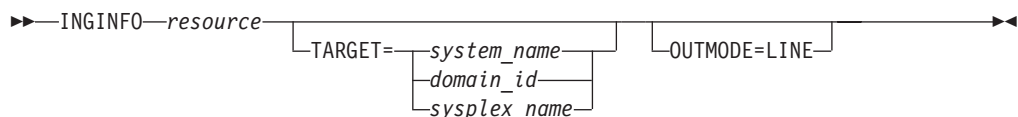
INGINFO

Purpose

INGINFO displays details about a particular group or resource from the automation manager point of view. The following information can be displayed:

- Resource statuses
- Dependency statuses
- Resource settings
- Relationships existing to other resources
- Requests and votes pending for the resource
- History information collected for the resource

Syntax



Parameters

resource

Specifies the name of the resource to be displayed. The format is *name/type/system*.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

None.

Usage

The INGINFO command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

If you type inginfo TPXA/APL/KEY3 a panel similar to the following is displayed:

```

INGKYIN0          SA OS/390 - Command Dialogs          Line 1   of 706
Domain ID   = IPSNO   ----- INGINFO -----          Date = 03/10/00
Operator ID = NETOP1          Sysplex = KEY1PLEX          Time = 19:18:05

Resource ==> TPXA/APL/KEY3          format: name/type/system
System      ==>          System name, domain ID or sysplex name

Resource      : TPXA/APL/KEY3
Description   : Simulated subsystem

Status...    :
Observed Status : AVAILABLE
Desired Status  : AVAILABLE
Automation Status : IDLE
Startable Status : YES
Compound Status : SATISFACTORY

Dependencies :
PreStart      : Satisfied
Start         : Satisfied

Command ==>
PF1=Help      PF2=End      PF3=Return   PF4=DISPINFO          PF6=Roll
              PF8=Forward  PF9=Refresh          PF12=Retrieve

```

Figure 60. INGINFO Command Dialog Panel

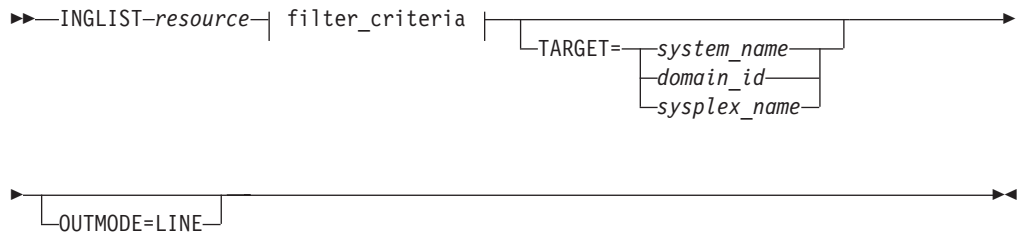
Press PF4 to toggle to the automation agent command DISPINFO (resource type APL).

INGLIST

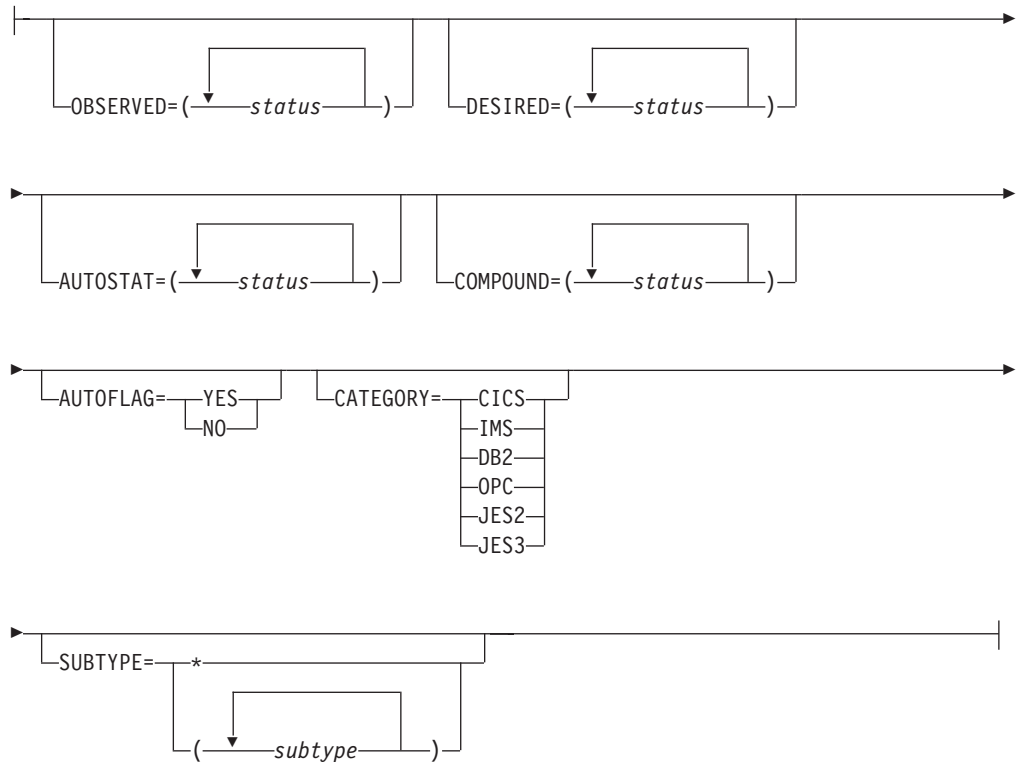
Purpose

The INGLIST command displays details about one or more resources.

Syntax



filter_criteria:



Parameters

resource

Specifies the name of the resource(s) to be displayed. The format is *name/type[system]*. It can be a list of names. The resource names must be separated by a blank. Asterixes (*) can be used as wildcard characters.

filter_criteria

The filter criteria to be applied prior to displaying the data. See also the related INGFLT command “INGFLT” on page 116 for further information. The following values can occur:

OBSERVED

Specifies the observed statuses to be displayed. The statuses must be separated by a blank. It can be abbreviated, for example to AV for available.

DESIRED

Specifies the desired statuses to be displayed. The statuses must be separated by a blank. It can be abbreviated, for example to AV for available.

AUTOSTAT

Specifies the automation status to be displayed. The statuses must be separated by a blank. It can be abbreviated, for example to ID for idle.

COMPOUND

Specifies the compound status. The statuses must be separated by a blank. It can be abbreviated, for example to SA for satisfactory.

AUTOFLAG

Specifies the automation flag to be displayed. It can be either **YES** or **NO** and can be abbreviated.

CATEGORY

Specifies the category that the resource belongs to. More than one value can be specified.

SUBTYPE

Specifies the subtype of the resource.

For further information about statuses, refer to *System Automation for OS/390 User's Guide*.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

None.

Usage

The INGLIST command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

If you type `inglist`, you see information on all automated resources:

```

INGKYST0          SA OS/390 - Command Dialogs          Line 1    of 383
Domain ID = IPSNO  ----- INGLIST -----          Date = 03/02/00
Operator ID = NETOP1      Sysplex = KEY1PLEX          Time = 16:13:19
CMD: A Update   B Start   C Stop   D INGREL5   E INGVOTE   F INGINFO
   G Members   H DISPTRG  I INGSCHED J INGGROUP           / scroll
CMD Name        Type System   Compound   Desired    Observed    Nature
-----
ALLOCAS        APL KEY1    INHIBITED  AVAILABLE  UNKNOWN
ALLOCAS        APL KEY2    INHIBITED  AVAILABLE  UNKNOWN
ALLOCAS        APL KEY3    SATISFACTORY AVAILABLE  AVAILABLE
ALLOCAS        APL KEY4    INHIBITED  AVAILABLE  UNKNOWN
AMCP           APL KEY1    INHIBITED  AVAILABLE  UNKNOWN
AMCP           APL KEY2    INHIBITED  AVAILABLE  UNKNOWN
AMCP           APL KEY3    PROBLEM    AVAILABLE  HARDDOWN
AMCP           APL KEY4    INHIBITED  AVAILABLE  UNKNOWN
ANTMAIN        APL KEY1    INHIBITED  AVAILABLE  UNKNOWN
ANTMAIN        APL KEY2    INHIBITED  AVAILABLE  UNKNOWN
ANTMAIN        APL KEY3    SATISFACTORY AVAILABLE  AVAILABLE
ANTMAIN        APL KEY4    INHIBITED  AVAILABLE  UNKNOWN
AOCAPPL        APL KEY1    INHIBITED  AVAILABLE  UNKNOWN

Command ==>
PF1=Help      PF2=End      PF3=Return   PF4=DISPSTAT PF5=Filters   PF6=Ro11
               PF8=Forward  PF9=Refresh  PF10=Previous PF11=Next    PF12=Retrieve

```

Figure 61. INGLIST Command Dialog Panel 1

Press PF10 and PF11 to display more information.

PF4 lets you toggle to the DISPSTAT command dialog, PF5 calls the INGfilt command dialog.

- The CMD field lets you specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name and press Enter. The following command codes are available:
 - A** Resets the status of the resource or application group (observed status, automation status). Sets or resets attributes assigned to the resource.
 - B** Start. Calls the INGREQ command dialog to make the resource available. Refer to “INGREQ” on page 148 for further information.
 - C** Stop. Calls the INGREQ command dialog to make the resource unavailable. Refer to “INGREQ” on page 148 for further information.
 - D** Displays the dependency information and its evaluation for the resource
 - E** Invokes the INGVOTE command, showing all requests currently present for the resource. Allows the operator to cancel a request.
 - F** Shows details about the resource by invoking the INGINFO command
 - G** Shows all members for the selected application group in a new window
 - H** Invokes the DISPTRG command to show the trigger definitions for the selected resource
 - I** Invokes the INGSCHED command showing the resource overrides that exist for the selected resource
 - J** Invokes the INGGROUP command
- The Name field shows the name of the resource.
- The Type field shows the type of the resource.
- The System field shows where the resource is defined.

- The Compound field shows the compound status of the resource. This is a summary of all statuses of the resource and provides a single value to check the status of a resource.
- The Desired field shows the status that the automation manager is trying to move the resource to. It can either be available or unavailable.
- The Nature field applies to group resources only and defines the type of the group. It can have the following values:

BASIC

Indicates that the group contains a number of different resources, all of which perform different roles to constitute a complete application.

MOVE

Indicates that the group contains alternate instances of the same resource

SERVER

Indicates that the group contains a number of readily interchangeable resources. The group has a target that tells the automation manager how many of them should be made available for the group to be available.

The SORT/FIND/RFIND subcommands are supported. Refer to “Deciding the Format of the Command Output (Full-Screen only)” on page 13 for information.

Setting the Status/Attribute of a Resource or Application Group

When you enter command code A for a resource, a panel similar to the following is displayed:

```

INGKYST1          SA OS/390 - Command Dialogs
Domain ID  = IPUFM  ----- INGLIST -----   Date = 07/24/00
Operator ID = NETOP1      Sysplex = AOC7PLEX      Time = 14:32:30

Resource . . : AGFG2/APL/AOC7
Description. : Simulated subsystem

Specify the action to be performed:

Action ==>      1. Set START Type
                  2. Set STOP  Type

                  3. Set Automation Flag NO
                  4. Set Hold Flag YES
                  5. Set Group failed flag      (Yes or No)

                  6. Set Observed Status
                  7. Set Automation Status

Command ==>
PF1=Help      PF2=End      PF3=Return
                                     PF6=Ro11
                                     PF12=Retrieve

```

Figure 62. INGLIST Command Dialog Panel 2

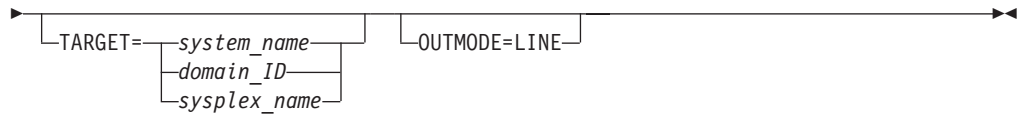
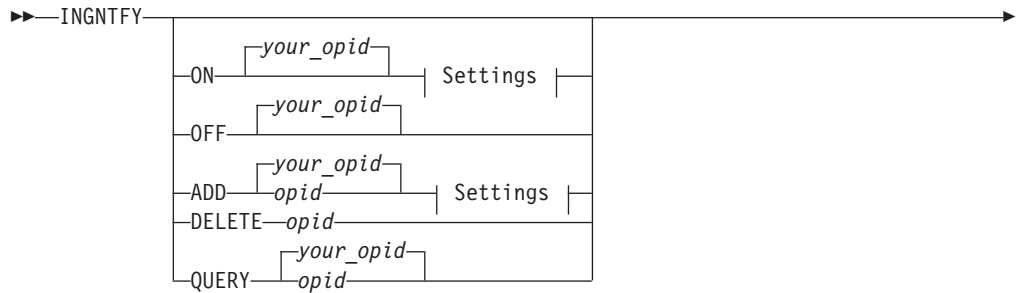
- The Resource field shows the name of the resource.
- The Description field shows descriptive information about the resource.
- The Action field shows the action to be performed.

INGNTFY

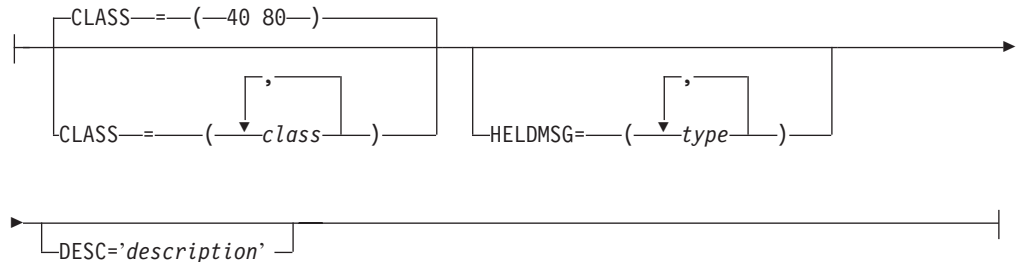
Purpose

INGNTFY adds, changes, or deletes notification operator settings.

Syntax



Settings:



Parameters

ON

Allows the operator who issues the command to receive notifications.

OFF

Turns off notifications for the operator who issues the command.

ADD

Adds the operator specified in *opid* to the list of notification operators, or changes the definition of the existing operator specified in *opid*.

Note: Use of the ADD function to change the definition of an existing operator completely deletes the old definition. It is necessary to respecify all message classes and held message types that you wish this operator to retain. This allows you to remove unwanted message classes and held message types from an existing operator.

DELETE

Removes the operator specified in *opid* from the list of notification operators.

QUERY

Displays information about the operator specified in *opid*.

opid

The ID of the operator to add, change, delete, or query.

your_opid

The ID of the operator issuing the command.

CLASS

The classes of messages the operator is to receive. Refer to *System Automation for OS/390 Messages and Codes* for information on which classes are valid. Up to ten comma-delimited classes, enclosed in parentheses, can be defined for an operator. The default classes are 40 + 80, unless defined otherwise in the automation control file.

DESC

An optional description of the operator. If the description contains blanks, commas, or other punctuation characters it must be enclosed in single quotation marks.

HELDMSG

The type or types of messages to hold on the operator's screen. If more than one type is specified, the types should be separated by commas and enclosed in parentheses. The types are:

Type	Meaning
A	Immediate Action
D	Immediate Decision
E	Eventual Action
I	Information
W	System Wait

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

For further details of message types and message notifications, refer to *System Automation for OS/390 Messages and Codes*.

Restrictions and Limitations

Any changes you make using the INGNTFY command are in effect only until the automation control file is reloaded.

The INGNTFY command can only be used when SA OS/390 is initialized.

Examples

To turn your messages off, type `ingntfy off`.

INGNTFY

To add notification operator Jim, assign him all messages in class 43, and hold Immediate Action type messages on his screen, type:

```
ingntfy add,jim,class=43,heldmsg=a
```

If you type `ingntfy`, a panel similar to the following is displayed:

```
AOFKAASN          SA OS/390 - Command Dialogs
Domain ID   = IPSNO  ----- INGNTFY -----   Date = 02/17/00
Operator ID = NETOP1                               Time = 15:52:54

Specify operator authority:
  Status/Action =>

Operator status:
  ON   - Set your notifications ON
  OFF  - Set your notifications OFF
  ADD  - Add or Modify an operator
  DELETE - Remove an operator
  QUERY - Look up an operator
Operator for ADD, DELETE or QUERY
Up to 10

Operator ID =>
Classes      =>
Description  =>

Held Messages - Information   =>   Immediate Action   =>
                Eventual Action =>   Immediate Decision =>
                System Wait    =>

System        =>           System name, domain ID or sysplex name

Command ==>
PF1=Help     PF2=End       PF3=Return
PF6=Roll     PF12=Retrieve
```

Figure 63. INGNTFY Command Dialog Panel

INGPLEX

Purpose

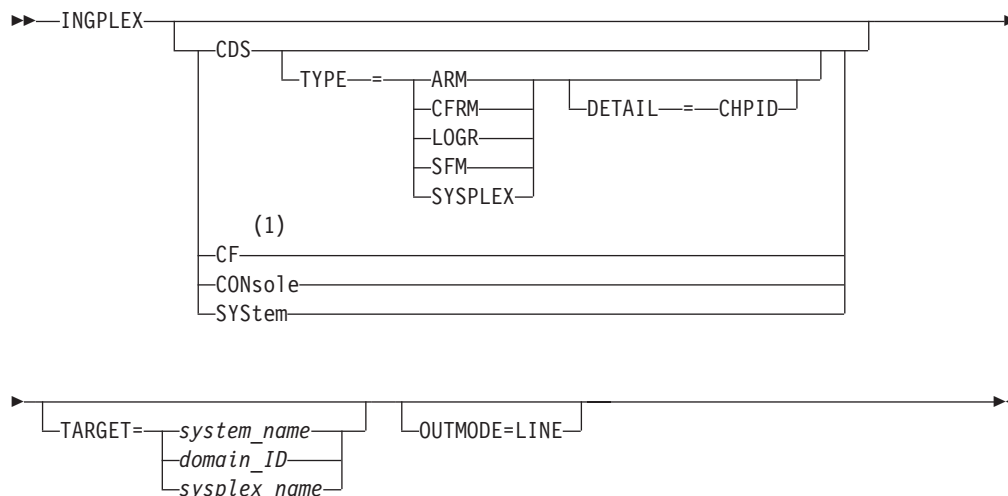
The INGPLEX command comprises all the sysplex-related functions of SA OS/390. It can be called in full mode and in line mode. If it is called in line mode, only the display functions are available.

INGPLEX contains several subcommands each of which will be described under a separate heading. They are:

- **SYStem**
This subcommand serves to display information about the systems of the sysplex.
- **CONsole**
This subcommand serves to display the consoles that are defined in the sysplex.
- **CF**
This subcommand is the INGCF command.
- **CDS**
With this subcommand, you can display information about the couple data sets of the sysplex and manipulate CDSs.

You initiate an action through an action code from a subcommand panel. Each action that affects the system configuration must be confirmed before it is executed.

Syntax



Notes:

- 1 For details see the INGCF command.

Parameters

subcommand

The subcommands are:

CDS Displays information about CDSs and supports replacement of the current alternate CDS by a new one as well as making the alternate CDS the new primary.

CF This is the INGCF command.

CONsole

Displays information about consoles.

SYStem

Displays information about a member system of the sysplex.

CDS_type

The type of CDS for which the CDS subcommand is called. Possible values are ARM, CFRM, LOGR, SFM, and SYSPLEX.

DETAIL=CHPID

If you specify this parameter with the CDS subcommand, the channel paths for the respective CDS type are displayed.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Example

When you call INGPLEX without specifying parameters, the following selection panel will be displayed:

```

INGLX000          SA OS/390 - Command Dialogs
Domain Id   = IPSFP      ----- INGPLEX -----          Date = 01/23/01
Operator Id = HIR3                                     Time = 17:48:58

Sysplex . . . . . : KEY1PLEX

Select the desired command:                               INGPLEX ...

  1 Display systems (including ETR & signalling paths)    SYStem
  2 Display consoles                                     CONSOLE
  3 Control coupling facilities                          CF
  4 Control couple data sets                             CDS

Command ==>
F1=Help      F2=End      F3=Return      F6=Ro11

```

Figure 64. INGPLEX selection panel

Here, you specify the number or the name of a subcommand and press ENTER to call the panel of the respective subcommand.

CDS Subcommand

Purpose

The CDS subcommand displays information about all the couple data sets in the system, including details of the respective policies, and allows the operator to:

- Switch from the primary to the alternate CDS
- Define a new alternate CDS
- Change the active policy (if applicable)

for every CDS type that is required by the implementation.

Actions are started by specifying an action code for a selected CDS type in the subcommand panel.

Actions

The possible actions and the associated codes are:

allocate alternate CDS (A)

This action replaces the current alternate CDS for a selected CDS type by a new one. In principle, you have two options how to do this:

- The alternate CDS is allocated automatically by SA OS/390.

This automatic allocation requires that spare volumes have been defined, and that one of these spare volumes is in fact available. For details, see *System Automation for OS/390 Defining Automation Policy*.

- You specify the data set that is to be used as the new alternate CDS.

If you specify your own data set, observe the following points:

- The data set must exist
- It must have been formatted with the XCF formatting tool
- It must be at least as large as the current primary CDS, which means that every value you have passed to the XCF formatting tool (for example, in the case of a sysplex CDS, the maximum number of systems supported) must be equal to or greater than the corresponding value of the primary CDS.

display CHPIDs (C)

This action displays information about the channel paths for the selected CDS type.

display CDS information (D)

This action displays detail information about the selected CDS type. This comprises the formatting parameters as well as the policies that are contained in the CDS, if applicable. When the CDSs of the selected type contain policies, the detail information panel provides further actions, namely:

display policy (D)

This action displays details about the selected policy.

display pending structures (P)

This action is only available for the CFRM couple data sets. A pending structure is produced by a switch of the CFRM policy when the structure was allocated at the time of the switch and, for example, the new policy defines the structure differently from the old policy or even not at all.

Note: You can resolve pending policy changes by rebuilding the structure. For this, you can use the rebuild action of INGCF STRUCTURE (see "STRUCTURE Subcommand" on page 113). Since, however, this action always results in moving the structure to *another* CF, you may prefer to issue the rebuild command from the msys for Operations command line as follows:

```
MVS SETXCF START,REBUILD,STRNAME=structure_name,LOCATION=NORMAL
```

Setting the LOCATION parameter to NORMAL has the effect that the structure is rebuilt in the first CF of the new preference list that fulfills all other requirements. In this case, the source and target CF can be identical.

start policy (S)

This action makes the selected policy the active policy.

The policy switch must be confirmed before it is executed.

switch alternate CDS to primary CDS (P)

This action makes the alternate CDS the primary. Since an alternate CDS is no longer available after the switch, SA OS/390 will present a confirmation panel before the action is performed. There, you can specify a new alternate. When CDS recovery is switched on and you do not supply your own alternate, SA OS/390 will try to allocate a new alternate CDS automatically. The special requirements for manual and automatic creation of the new alternate are the same as those for the replacement of the alternate (action code 'A'), respectively.

Examples

The first example illustrates the switch from the primary to the alternate CDS, the second a switch of the CFRM policy, and the third explains the channel path panel.

All three examples start with issuing INGPLEX CDS and pressing F8 on the CDS command dialog to scroll down the CDS list. This results in the following panel:

```

INGKX300          SA OS/390 - Command Dialogs      Line 7   of 18
Domain ID  = IPSFO  ----- INGPLEX CDS -----   Date = 03/01/01
Operator ID = SCHR   Sysplex = KEY1PLEX           Time = 10:08:10

System..: KEY3          Interval...: 86400          OPNotify: 86400
Maxmsg..: 999999       Cleanup....: 60          Retry...: 255
Classlen: 956          Max CFlevel: 9          COUPLExx: COUPLER1
SMREBLD.: 1           Max SMlevel: 9

Cmds: A allocate alternate CDS / C display CHPIDs
      D display CDS information / P switch alternate CDS to primary CDS

      Type      MS   Volume  Dev   Couple Dataset Name
      -----
      -  CFRM
        PRIMARY...: 16  KEY1SP  260B  SYS1.KEY1.PXESCDS
        ALTERNATE: 16  KEYUSR  261C  SYS1.KEY1.AXESCDS
      -  LOGR
        PRIMARY...: 8   KEY1SP  260B  SYS1.KEY1.PLOGCDS
        ALTERNATE: 8   KEYUSR  261C  SYS1.KEY1.ALOGCDS

Command ==>
F1=Help      F2=End      F3=Return   F6=Roll
PF7=Back     PF8=Forward F9=Refresh  F12=Retrieve
    
```

Figure 65. INGPLEX CDS dialog panel

The panel header contains sysplex-related information about the system on which the INGPLEX command was executed. The details are as follows:

- The **System** field shows the name of the system.
- The **Interval** field shows the system failure detection interval in seconds. This interval is the amount of time XCF lets elapse without a status update before assuming that the system failed.
- The **OPNotify** field shows the number of seconds that XCF waits before notifying the operator of a potential system problem.
- The **Maxmsg** field shows the default value for the maximum amount of kilobytes of message buffer space. This default value is used when MAXMSG is not specified on SETXCF START commands.
- The **Cleanup** field shows the number of seconds that XCF waits for cleanup of members.
- The **Retry** field shows the default value for the retry limit. This value is used when the REPLY keyword is not specified on SETXCF START commands.
- The **Classlen** field shows the default length (in bytes) of messages allowed for a transport class. This value is used when CLASSLEN is not specified on the SETXCF START CLASSDEF command.
- The **Max CFlevel** field shows the maximum CFLEVEL supported by this system. This system can connect to a coupling facility with a higher CFLEVEL than the value of **Max CFlevel** but would not be enabled to use any functions supported by the higher level coupling facility.

- The **COUPLExx** field shows the COUPLExx Parmlib member used for system ipl.
- The **SMRBLD** field shows whether (value 1) or not (value 0) system-managed rebuild has been activated in the CFRM couple dat set.
- The **Max SMlevel** field shows the maximum system-managed process level supported by this system.

The main part of the screen shows information about the primary and alternate CDSs for every CDS type. Scroll with F8 to display further entries. The **MS** column shows the maximum number of systems that are supported by the CDS.

Making an alternate CDS the primary CDS: In this example, the alternate LOGR couple data set is made the new primary CDS. A new alternate is automatically generated.

In order to switch the LOGR couple data set, enter P before LOGR on the panel displayed in Figure 65 on page 136, and press ENTER. INGPLEX CDS presents the following confirmation panel:

```

INGKX30A                SA OS/390 - Command Dialogs
Domain ID  = IPSFO      ----- INGPLEX CDS -----      Date = 03/01/01
Operator Id = SCHR          Sysplex = KEY1PLEX              Time = 10:08:13

                          SETXCF PSWITCH Confirmation

You are going to remove the LOGR  primary couple data set.
The alternate couple data set  SYS1.KEY1.ALOGCDS
becomes the primary as soon as you proceed with the GO function key.
Immediately after the switch, automation will try to allocate a new alternate
couple data set on one of the spare volumes defined during the customization.
If you want the automation to allocate your own alternate couple data set
complete the necessary information below.

Your alternate couple dataset...

Name  ==>

Volume ==>

Command ==>
          F2=End      F3=Return      F10=Go      F11=Cancel  F6=Ro11
                                     F12=Retrieve

```

Figure 66. Confirmation panel for switching from the current primary CDS to the alternate CDS

The main purpose of this panel is to determine how a new alternate CDS is to be created after the switch. You can either specify your own new alternate CDS or let SA OS/390 create it for you. When you specify the new alternate yourself, the data set must exist and must have been formatted with the XCF formatting tool. Automatic creation requires that spare volumes have been defined for LOGR couple data sets.

Simply pressing F10 causes SA OS/390 to generate the new alternate. After returning to the CDS command dialog, refreshing the panel, and scrolling down with F8, the panel looks as follows:

```

INGKX300          SA OS/390 - Command Dialogs      Line 7   of 18
Domain ID   = IPSFO      ----- INGPLEX CDS -----   Date = 03/01/01
Operator ID = SCHR          Sysplex = KEY1PLEX           Time = 10:08:25

System..: KEY3          Interval...: 86400          OPNotify: 86400
Maxmsg...: 999999      Cleanup....: 60          Retry...: 255
Classlen: 956          Max CFlevel: 9          COUPLExx: COUPLER1
SMREBLD.: 1           Max SMlevel: 9

Cmds: A allocate alternate CDS / C display CHPIDs
      D display CDS information / P switch alternate CDS to primary CDS

Type      MS   Volume  Dev   Couple Dataset Name
-----
-  CFRM
  PRIMARY...: 16  KEY1SP  260B  SYS1.KEY1.PXESCDS
  ALTERNATE: 16  KEYUSR  261C  SYS1.KEY1.AXESCDS
-  LOGR
  PRIMARY...: 8   KEYUSR  261C  SYS1.KEY1.ALOGCDS
  ALTERNATE: 8   AOCUSR  262B  AOC.CDS.TEST.LOGR.CDS02

Command ==>
F1=Help      F2=End      F3=Return      F6=Roll
PF7=Back     PF8=Forward  F9=Refresh     F12=Retrieve
    
```

Figure 67. INGPLEX CDS dialog panel after the switch

The previous alternate LOGR CDS is now the primary, and there is a new alternate, which was created by SA OS/390. See *System Automation for OS/390 Defining Automation Policy* for details.

Switching the CFRM policy: In this example, the active CFRM policy is switched.

Enter D before CFRM on the panel displayed in Figure 65 on page 136, and press ENTER. The following panel is displayed:

```

INGKX311          SA OS/390 - Command Dialogs      Line 1   of 5
Domain ID   = IPSFO      ----- INGPLEX CDS -----   Date = 03/01/01
Operator ID = SCHR          Sysplex = KEY1PLEX           Time = 10:13:13
                                CFRM Couple Data Set Information

Data Set Information
Volume Device FORMAT TOD          Data Set Name
-----
KEY1SP 260B 08/29/2000 08:51:30 SYS1.KEY1.PXESCDS
KEYUSR 261C 08/29/2000 08:47:42 SYS1.KEY1.AXESCDS
Control Card Information
MS POLICY CF STR CONNECT SMREBLD
-- -----
16      8  4  64      16      1
Policy Information
Cmds: D display policy / S start policy
Name      CF Str Date      Time      Userid
-----
- BZOEPOL ACTIVE 2 19 02/10/2001 10:05:47 BZOE
- HIRPOL   2 19 02/19/2001 19:45:57 HIR
- HIRPOL1  1  8 08/25/2000 09:20:04 HIR

Command ==>
F1=Help      F2=End      F3=Return      F6=Roll
PF8=Forward  F9=Refresh     F12=Retrieve
    
```

Figure 68. CFRM couple data set information panel before policy switch

The panel is divided into three sections. The uppermost part contains information about the the names and locations of the CDSs. The middle section displays the parameters that were used by the formatting tool of XCF for the allocation of the CDS. The **POLICY** field, for example, displays the maximum number of policies the CDS can contain. The lowest section shows information about the policies in the CDS, for example, how many CFs and structures are defined in every policy, and which policy is currently active.

In order to switch to the HIRPOL policy, enter S before this policy and press ENTER. INGPLEX CDS presents the following confirmation panel:

```

INGKX30C          SA OS/390 - Command Dialogs
Domain ID  = IPSFO  ----- INGPLEX CDS -----      Date = 03/01/01
Operator Id = SCHR          Sysplex = KEY1PLEX          Time = 10:13:17

                          SETXCF START  Confirmation

You are going to start a new CFRM   CDS policy named  HIRPOL   .

The current policy

      BZOEPOL

will be stopped as soon as you proceed with the GO function key,

Command ==>>
                F2=End      F3=Return      F10=Go      F11=Cancel  F6=Ro11
                                                F12=Retrieve

```

Figure 69. Confirmation panel for policy switch

After pressing F10, the **Couple Data Set Information** panel looks as follows

```

INGKX311          SA OS/390 - Command Dialogs      Line 1   of 5
Domain ID   = IPSFO      ----- INGPLEX CDS -----   Date = 03/01/01
Operator ID = SCHR          Sysplex = KEY1PLEX          Time = 10:13:45
                                CFRM Couple Data Set Information

Data Set Information
Volume Device FORMAT TOD          Data Set Name
-----
KEY1SP 260B 08/29/2000 08:51:30 SYS1.KEY1.PXESDCS
KEYUSR 261C 08/29/2000 08:47:42 SYS1.KEY1.AXESDCS
Control Card Information
MS POLICY CF STR CONNECT SMREBLD
-- -----
16      8  4  64      16      1
Policy Information
Cmnds: D display policy / S start policy / P display pending structures
Name      CF Str Date      Time      Userid
-----
_ BZOEPOL      2  19 02/10/2001 10:05:47 BZOE
_ HIRPOL ACTIVE  2  19 02/19/2001 19:45:57 HIR
_ HIRPOL1      1   8 08/25/2000 09:20:04 HIR

Command ==>>
F1=Help      F2=End      F3=Return      F6=Roll
              PF8=Forward  F9=Refresh      F12=Retrieve
  
```

Figure 70. CFRM couple data set information panel after policy switch

Now the HIRPOL policy is marked as active. Note that now the action code P for displaying pending structures is offered. This indicates that the policy switch has produced pending structures. You can display these structures when you enter P before the active policy. For more information, see “Display pending structures” on page 135.

Displaying the channel paths for a CDS type: In this example, the channel paths for the CFRM couple data sets are displayed.

Enter C before CFRM on the panel displayed in Figure 65 on page 136, and press ENTER. The following panel is displayed:


```

INGKX318                SA OS/390 - Command Dialogs                Line 1 of 4
Domain ID = IPSFO      ----- INGPLEX CDS -----                Date = 03/02/01
Operator ID = SCHR      Sysplex = KEY1PLEX                      Time = 08:05:46
                        CFRM Channel Path Information
System  T  DEVN  CHPIDs                                           SSID
-----  -  ----  -----
KEY1    P  260A  E4=+ E5=+ E2=+ E3=+                                           2600
        A  2610  E4=+ E5=+ E2=+ E3=+                                           2600
KEY2    P  260A  E4=+ E5=+ E2=+ E3=+                                           2600
        A  2610  E4=+ E5=+ E2=+ E3=+                                           2600
KEY3    P  260A  E4=+ E5=+ E2=+ E3=+                                           2600
        A  2610  E4=+ E5=+ E2=+ E3=+                                           2600
KEY4    P  260A  13=+ 22=+ 30=+ 94=+                                           2600
        A  2610  13=+ 22=+ 30=+ 94=+                                           2600

Command ==>
F1=Help      F2=End          F3=Return      F6=Roll
              F9=Refresh      F12=Retrieve

```

Figure 71. Channel path information for CFRM couple data sets

The individual columns show:

- The **System** column shows the name of the sysplex members.
- The **T** column (for 'type') indicates whether the CDS is the primary (value 'P') or alternate (value 'A').
- The **DEVN** displays the number of the device on which the CDS resides.
- The **CHIDs** column shows the status of the paths to the devices in the format *chpid=status_code*. The codes are those of the operating system. They have the following meaning:
 - + The path is logically and physically available and I/O on the path was successful.
 - * The path is physically, but not logically available. The subchannel's logical path indicator is off but I/O to the path is successful. You can use the command `VARY PATH (ddd,nn),ONLINE` to make channel path *nn* logically available to device *ddd*.
 - The path is neither logically nor physically available. The subchannel's logical and physical indicators are both off for this channel path. You can use the command `CONFIG CHP(nn),ONLINE` to make the channel path logically available to all devices connected to the channel.
 - & The device is reserved to another path. This indicator applies to devices with the dynamic pathing selection feature.
 - < The path is installed but not physically available. The start subchannel request received a condition code of 3.
 - > The device microcode has detected an error and will not allow I/O to complete on the path.
 - B** The path is unable to communicate. The device indicates that a busy or reserve condition exists on the path.
 - C** A controller error occurred while accessing the device.

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- D A device error occurred while accessing the device.
 - I Intervention is required; the device is not ready.
 - R The path is available and the device is reserved to this path/group. This only applies to devices with the dynamic pathing feature.
 - T A time out has occurred; there is no response from the device. The cause of the time out is undetermined and this condition is transient.
 - U A storage control unit or storage director error occurred while accessing the device.
 - X Unable to determine the failing unit.
- The **SSID** field displays the storage subsystem to which the device belongs.

SYStem Subcommand

Purpose

The SYSTEM subcommand displays the target sysplex name, its GRS mode and its member systems.

Actions

The following command codes are available:

- C Displays the online or offline status of one or more processors and any vector facilities, or ICRFs attached to those processors
- E Displays the timer synchronization mode and ETR ports
- I Displays IPL information
- O Displays IOS-related configuration information
- S Displays the number of megabytes of central and expanded storage assigned and available to the system
- D Displays the device number of one or more in-/outbound signalling paths that XCF can use and information about in-/outbound XCF signalling paths to this system
- T Displays detailed signalling path information for all coupling facility structures

Example

```

AOFKX100          SA OS/390 - Command Dialogs          Line 1   of 4
Domain ID = IPSFP  ----- INGPLEX SYSTEM -----      Date = 03/05/01
Operator ID = SCHR                                     Time = 09:44:37

Sysplex . . . . . : KEY1PLEX
GRS Mode . . . . . : STAR

Display more info: C CPU E ETR I IPL O IOS S STOR/ESTOR
Signalling Path : D device T structure

          Monitor
Cmd System  Status  Timestamp  INTERVAL  Action  SSUM  -----
-----  -----  -----  -----  -----  -----  -----  -----
-  KEY1     ACTIVE  09:44:34  86400     ISOLATE  50    50
-  KEY2     ACTIVE  09:44:35  86400     ISOLATE  50    15
-  KEY3     ACTIVE  09:44:34  86400     ISOLATE  50    15
-  KEY4     ACTIVE  09:44:36  86400     ISOLATE  50    15

Command ==>
F1=Help      F2=End          F3=Return      F6=Roll
              F9=Refresh      F12=Retrieve

```

Figure 72. INGPLEX SYSTEM dialog panel

- The **Sysplex** field shows the name of the sysplex.
- The **GRS Mode** field shows the GRS mode of the target system. The mode can be either STAR or RING.
- The **CMD** column allows you to specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name, and press ENTER.
- The **System** column shows the name of the system.
- The **Status** column shows the status of the system.
- The **Monitor Timestamp** column shows the last time stamp recorded for status monitoring on this system.
- The **INTERVAL** column shows the system failure detection interval in seconds. This interval is the time XCF allows to elapse without a status update before assuming that the system failed.

The last three columns contain configuration data of the SFM policy (if applicable).

- The SSUM Action field shows the SSUM action. It can be one of the following:
 - ISOLATE
 - DEACTIVATE
 - RESET
 - PROMPT
 - N/A
- The SSUM TIME field shows the SSUM interval as specified in the current SFM policy.
- The SSUM WEIGHT field shows the SSUM weight specified in the current SFM policy. This weight is used in sysplex reconfigurations after a signalling connectivity failure.

CONsole Subcommand

Purpose

The CONSOLE subcommand displays the following information for the target sysplex:

- The name of the master console
- WTO & WTOR buffer utilization
- Number of queued messages (replies) of various types
- Awaiting mounts
- Operator requests and list of consoles (name, status, authority, number of WTOR buffers, UD, device, system, ALTGRP, MSCOPE)

Use PF10 to see more columns of information.

Actions

The following command codes are available:

- D** Displays details for the console
- R** Displays the actual requests for the console

Example

```

INGLX400          SA OS/390 - Command Dialogs          Line 1 of 6
Domain Id = IPSFP  ----- INGPLEX CONSOLE -----      Date = 04/12/01
Operator Id = SCHR                                     Time = 10:36:26

Sysplex . . . . . : KEY1PLEX          Master Console . . . : --none--
Message Buffer Usage : 14 / 9999      Reply Buffer Usage . . : 14 / 99
Awaiting Replies . . : 14            Eventual Action . . . : 0
Immediate Action . . : 0             Awaiting Mounts . . . : 0
Critical Action . . . : 0            Operator Requests . . . : 0
-----

Cmds: D Details / R Requests

  Console  Status  AUTH  NBUF  UD  Device  System  ALTGRP  MSCOPE
  -----  -
MASTER    INACTIVE MASTER n/a   Y  -none- --none-- --none-- *ALL
MASTER1   INACTIVE ALL    n/a   N  -none- --none-- --none-- *ALL
03        INACTIVE MASTER n/a   N  -none- --none-- --none-- *ALL
04        INACTIVE MASTER n/a   N  -none- --none-- --none-- *ALL
05        INACTIVE MASTER n/a   N  -none- --none-- --none-- *ALL
06        INACTIVE MASTER n/a   N  -none- --none-- --none-- *ALL

Command ==>
F1=Help      F2=End      F3=Return   F6=Ro11
              F9=Refresh  F12=Retrieve
    
```

Figure 73. INGPLEX CONS dialog panel

- The **Sysplex** field shows the name of the sysplex.
- The **Message Buffer Usage** field shows the limit of the number of WTO message buffers allowed outstanding.
- The **Awaiting Replies** field shows a decimal number representing the number of messages awaiting replies.
- The **Immediate Action** field shows a decimal number representing the number of outstanding immediate action messages (with descriptor codes 1 or 2). If the number is greater than 99999, asterisks appear in this field.

- The **Critical Action** field shows a decimal number representing the number of outstanding critical eventual action messages (with descriptor code 11). If the number is greater than 99999, asterisks appear in this field.
- The **Master Console** field shows the name of the master console.
- The **Reply Buffer Usage** field shows the limit of the number of WTOR message buffers allowed outstanding. The maximum value of yyyy is specified by the RMAX parameter in the CONSOLxx parmlib member.
- The **Eventual Action** field shows a decimal number representing the number of outstanding eventual action messages (with descriptor code 3). If the number is greater than 99999, asterisks appear in this field.
- The **Awaiting Mounts** field shows a decimal number representing the number of outstanding mount requests.
- The **Operator Requests** field shows a decimal number representing the number of outstanding requests for operator intervention.
- The **CMD** column lets you specify the command codes shown on the panel. Type the appropriate letter next to the resource name, and press ENTER.
- The **Console** column shows the name of the console as specified in the CONSOLxx parmlib member.
- The **Status** field shows the status of the console. The following values can occur:

HARDCOPY

Hard-copy log. This condition will be indicated only when the console is active on the system where the command processes.

ACTIVE

Active console.

ACTIVE-P

In the process of becoming an active console. This condition will be indicated only when the console is active on the system where the command is processing.

MASTER

Master console

INACTIVE

Inactive console

INACT-P

In the process of becoming a non-active console. This condition will be indicated only when the console is active on the system where the command is processing.

PROB-DET

The active system console is in the problem determination mode. PD is indicated only for the system console.

SUBSYS

Subsystem-allocatable console

- The **AUTH** column shows which commands may be entered from this console. The following values can occur:

ALL Any INFO SYS, IQ or CONS command may be entered from this console.

CONS INFO commands and any commands from the console command group may be entered from this console.

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INFO Any command from the informational command group may be entered from this console.

IO INFO commands and any commands from the I/O Control command group may be entered from this console.

MASTER

The specified console is authorized to enter any operator command.

NONE

This console has no command authority.

SYS INFO commands and any commands from the system control command group may be entered from this console.

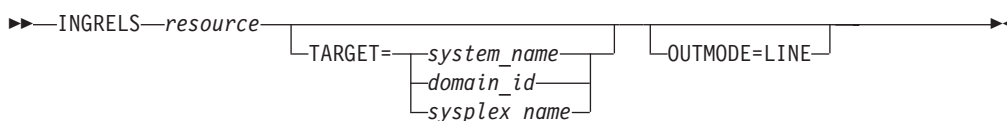
- The **NBUF** column shows the number of WTO message buffers currently queued to this console. If nnnn is greater than 9999, asterisks (***) appear in this field.
- The **UD** column shows whether this console is receiving messages with the UD attribute.
- The **Device** column shows the name of the console as specified in the CONSOLxx parmlib member. This console can be a subsystem allocatable console.
- The **System** column shows the device number of the active console.
- The **ALTGRP** column shows the alternate group defined for this console.
- The **MSCOPE** column lists the name of the system or systems from which this console is receiving unsolicited messages. Note that these systems might be different from the system where this console is physically attached.

INGRELS

Purpose

The INGRELS command shows the relationships that are defined for the given resource.

Syntax



Parameters

resource

Specifies the name of the resource to be displayed. The format is *name/type[/system]*.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

None.

Usage

The INGRELS command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

If you type `ingrels` and the name of a resource, a panel similar to the following is displayed.

```

INGKYRL0          SA OS/390 - Command Dialogs      Line 1   of 14
Domain ID   = IPUFA   ----- INGRELS -----      Date = 07/03/00
Operator ID = NETOP1      Sysplex = AOCPLX          Time = 14:04:51

Resource ==> HUGCF2APL4/APL/AOCB
System      ==>                System name, domain id or sysplex name

Name        Type System  Dir Relationship
-----
AOCB        SYG  AOCB   B  HasMember
           Cond: startDependency
           Cond: stopDependency
           Cond: extStart - UNSATISFIED
           Cond: extStop - UNSATISFIED
           Cond: extStopDelayed
           Cond: prestartDependency
           Cond: prestopDependency
           Cond: groupTriggerStartupInhibited - UNKNOWN
           Cond: groupTriggerShutdownInhibited - UNKNOWN
HUGCF2APL3  APL  AOCB   F  MakeAvailable/WhenAvailable

Command ==>
PF1=Help      PF2=End      PF3=Return   PF6=Ro11
               PF8=Forward  PF9=Refresh  PF12=Retrieve

```

Figure 74. INGRELS Command Dialog Panel

- The Name field shows the name of the resource that the specified resource has a relationship with. This is referred to as the relationship partner and is also called the supporting resource.
- The Type field shows the type of the resource.
- The System field shows the name of the system where the resource resides.
- The Dir field shows the direction of the relationships as seen from the specified resource.

F Forward. The relationship exists from the specified resource to the partner resource.

B Backward. The relationship exists from the partner resource to the specified resource.

INGRELS

- The Relationship field shows the name of the relationship that exists between the two resources. This defines the dependency that exists between the two resources. The status of all descendants will be considered for a relationship with strong chaining. For weak chaining only the direct descendants are checked. Weak is the default. Strong chaining causes SA OS/390 to check all relationships of the involved resources along the dependency graph.

If the relationship name contains 'active', this means that an attempt is made to bring the supporting resource in the required state to satisfy the dependency. Active is the default.

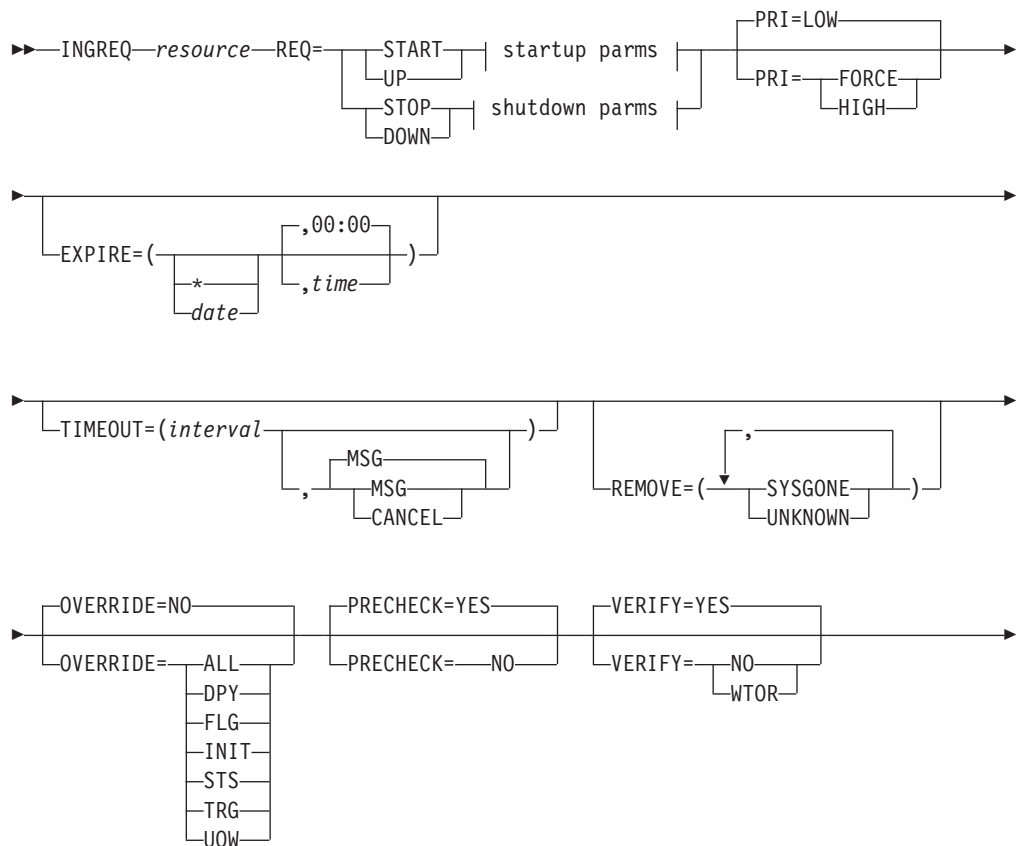
INGREQ

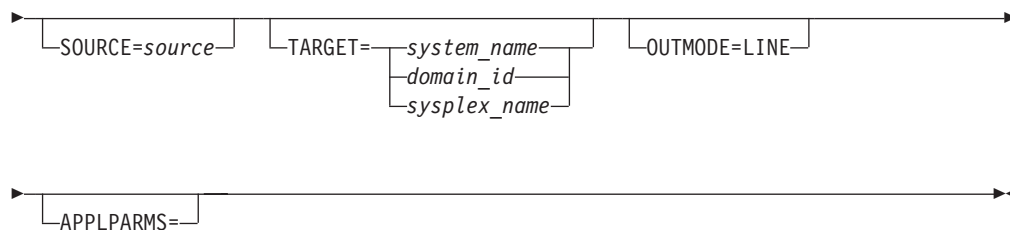
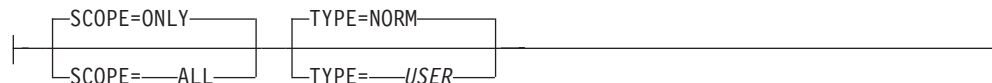
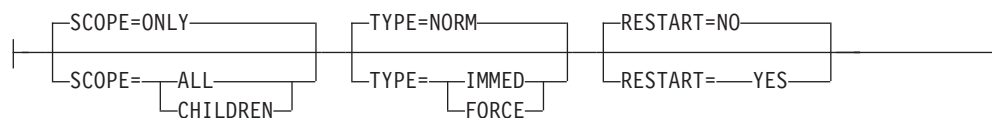
Purpose

The INGREQ command lets you:

- Initiate the shutdown process for a specific resource or group of resources
- Initiate the startup process for one or more resources

Syntax



**Startup parms:****Shutdown parms:**

Parameters

Resource

Specifies the name of the resource to be processed. The format is *name[/type[/system]]*. Wildcard is supported. If more than one resource matches the wildcard specification a selection panel will be displayed.

Note: You need not specify the full name of the resource. This applies to the system as well as to the type. If the resource name is unique within the name space of the automation manager, then the system name need not be specified. If the resource name is unique within the appropriate types, then the type need not be specified. A valid resource name could be, for example, CICSPROD.

REQ

Specifies the request to be carried out. This is either START or STOP. Alternatively you can use UP respectively DOWN.

PRI

Specifies the priority given to the request. It can be:

FORCE Takes precedence over requests posted with HIGH priority, for example, INGREQ=START PRI=FORCE overrules an INGREQ=STOP PRI=HIGH request.

HIGH High priority

LOW Low priority. This is the default.

EXPIRE

Specifies the expiry date and time of the request. The request is automatically removed when it expires. The date format is yyyy-mm-dd. The time format is hh:mm.

INGREQ

TIMEOUT

Specifies the interval used to check whether the request has been successfully completed. Either a message is issued, or the request is cancelled if the request has not been satisfied after that time. The format is mm.

MSG

Specifies that a message should be issued telling the notify operator that the request was not satisfied within the expected time interval. The default is to issue a message.

CANCEL

Specifies that the request should be cancelled.

REMOVE

Indicates the condition under which the request is automatically removed, regardless of whether the request is satisfied or not. If the specified condition matches the observed status of the resource, the request will be deleted.

SYSGONE

If the system where the automation agent runs leaves the sysplex, the observed status of all resources running on that system becomes SYSGONE.

UNKNOWN

If the automation agent stops, the observed status of all resources controlled by the automation agent becomes UNKNOWN.

OVERRIDE

Specifies the overrides to be considered for the request. These can be one or more of the following:

NO

Specifies that no override is done. For example, a resource will not be started unless its startup flag is set on and its trigger, if used, is satisfied. This is the default.

ALL

Sets the DPY, FLG, INIT, STS, TRG, and UOW, flags on. For startup this means that the resource is made available regardless of the automation flag settings, its trigger setting or the state of the start dependencies defined for the resource. For shutdown this means that the resource is made unavailable regardless of its automation flag settings, the trigger state and the state of the stop dependencies.

DPY

Causes to ignore the status of the relevant START/STOP dependencies that are defined for the resource.

Note: This parameter should only be used with STOP SCOPE=ONLY.

FLG

The appropriate automation flags will be ignored for the resource.

INIT

The current INITIAL start required status will be ignored for a CICS subsystem. There are certain conditions when CICS abends and an INITIAL start is required. CICS Automation will detect these conditions and perform the next start with type INITIAL. This override can be used to ignore the INITIAL start tests, for example, if the problem has been fixed externally.

STS

The current status of the resource will be ignored.

TRG

The current trigger settings will be ignored when determining whether or not the resource can be started or stopped.

UOW

The current Outstanding Unit of Work status will be ignored for a CICS subsystem. If there are Outstanding Units of Work for a CICS subsystem, CICS Automation will start (based on user-specified policy) the subsystem with type AUTO. This override can be used to ignore the UOW tests.

PRECHECK

Specifies whether or not the startup/shutdown process should prevalidate any actions before actually performing them. The value can be:

YES

Validation is performed for the entry resources. This is the default.

NO

Validation is not performed before the command is issued.

VERIFY

Specifies whether the startup/shutdown process should be verified. The following specifications are valid:

YES The list of affected resources is displayed before the startup/shutdown begins. The operator is prompted to verify the list.

WTOR

The list of affected resources is displayed before the startup/shutdown begins. The operator is prompted to verify the list via WTOR.

NO

No verification is performed. VERIFY is set to NO for AUTOTASKs. Otherwise it is set to YES.

The default depends on the type of task that the INGREQ command runs on.

SOURCE

Specifies the originator of the request. The default is OPERATOR for an OST and AUTOOPS for an autotask.

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

APPLPARMS

The content of APPLPARMS is put into the &EHKVAR1 variable. For further information refer to *System Automation for OS/390 User's Guide*.

SCOPE

Specifies whether the startup/shutdown affects a resource and/or its descendants. Valid options are:

ONLY

Specifies that only the specified resource is started or stopped. This is the default for startup.

ALL

Specifies that the resource and its descendants are started or stopped. This is the default for shutdown.

INGREQ

CHILDREN (shutdown only)

Specifies that only the descendants of the resource are stopped.

TYPE

Specifies the type of the startup/shutdown. Each type must be defined in the policy database. Valid options are:

NORM (startup/shutdown)

Specifies a normal startup/shutdown. This is the default.

IMMED (shutdown only)

Specifies an immediate shutdown.

FORCE (shutdown only)

Specifies a forced shutdown.

USER (startup only)

Specifies a user-defined startup type.

RESTART (shutdown only)

Specifies whether the resource should be restarted automatically when it has been shutdown completely. Valid options are:

NO

Specifies that no restart is performed. This is the default.

YES

Specifies that a restart is performed.

Restrictions and Limitations

To use the INGREQ command system operations must be initialized.

Usage

The INGREQ command operates sysplex-wide. For an overview refer to "Overview of Commands that Operate Sysplex-Wide" on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

If you type INGREQ a panel similar to the following is displayed:

```

INGKYRU0          SA OS/390 - Command Dialogs
Domain ID = IPUFA ----- INGREQ ----- Date = 07/06/00
Operator ID = AFRANCK                               Time = 13:19:53

Resource =>                                     format: name/type/system
System   =>                                     System name, domain ID or sysplex name

Request  =>                                     Request type (START, UP or STOP, DOWN)
Type     => NORM                               Type of processing (NORM/IMMED/FORCE/user) or ?
Scope   =>                                     Request scope (ONLY/CHILDREN/ALL)
Priority => LOW                                Priority of request (FORCE/HIGH/LOW)
Expire   =>                                     , Expiration date(yyyy-mm-dd), time(hh:mm)
Timeout => 0 / MSG                            Interval in minutes / Option (MSG/CANCEL)
AutoRemove =>                                Remove when (SYSGONE, UNKNOWN)
Restart  => NO                                 Restart resource after shutdown (YES/NO)
Override => NO                                 (ALL/NO/TRG/FLG/DPY/STS/UOW/INIT)
Verify   => YES                               Check affected resources (YES/NO/WTOR)
Precheck => YES                               Precheck for flags and passes (YES/NO)
Appl Parm =>

AOF710A VERIFY/REVISE INPUT AND THEN PRESS ENTER
Command ==>>
PF1=Help    PF2=End    PF3=Return
PF6=Roll    PF12=Retrieve

```

Figure 75. INGREQ Command Dialog Panel

- The Resource field shows the name of the resource to be processed. The format is *name/type[/system]*. Wildcard is supported.
- The System field shows the name of the system (system name, domain ID, or sysplex name) to which the command should be routed. Specifying this is only necessary if the resources are not part of the local sysplex.
- The Request field shows the request to be carried out. This is either START or STOP. Alternatively you can use UP, respectively DOWN.
- The Type field shows the type of the startup/shutdown. Valid shutdown types are NORM, IMMED and FORCE as well as any other type defined in the Policy database for the resource. Specify a questionmark (?) to display the list of defined startup types.
- The Scope field shows whether the startup/shutdown affects this resource and/or its descendants.
- The Priority field shows the priority given to the request.
- The Expire field shows the expiry date and time when the request will be removed.
- The Timeout field shows the time within which the request must complete. After this time interval either a message is issued, or the request is cancelled.
- The AutoRemove field shows the condition under which the request is automatically removed regardless of whether the request is satisfied or not.
- The Restart field shows whether the resource should be restarted automatically when it has been shutdown completely. This applies only when requesting a shutdown of a resource.
- The Override field shows the overrides to be considered for the request. The parameter can be used to bypass the conditions/settings that would otherwise prevent a resource(s) from starting or shutting down.
- The Verify field shows whether the startup/shutdown process should be verified. If YES or WTOR is entered, the list of affected resources is displayed before the startup/shutdown begins. You will be prompted to verify the list. IF

INGREQ

WTOR is specified, you will be prompted via a WTOR. If NO is entered, the startup/shutdown begins immediately. The default is YES.

- The Precheck field shows whether or not the startup/shutdown process should perform upfront validation.
- The Appl Parm's field shows modifications or parameters to the START or STOP request.

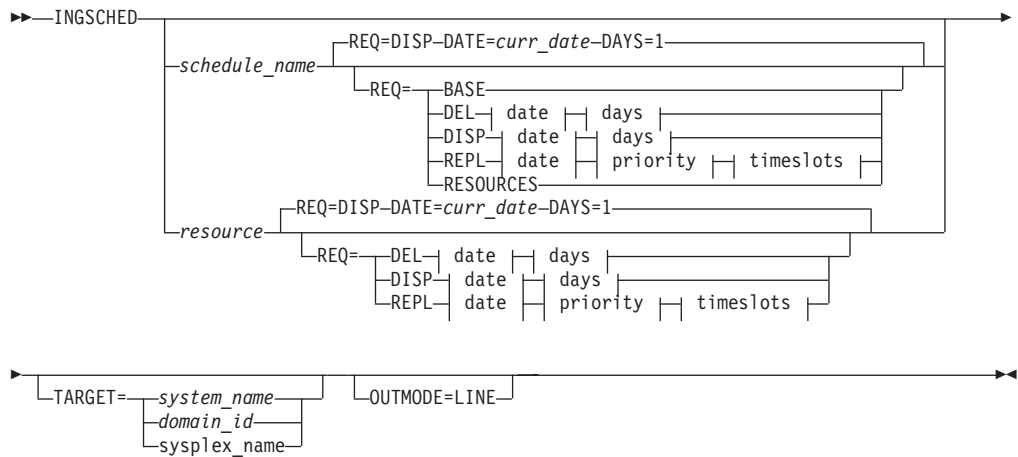
INGSCHED

Purpose

INGSCHED displays a list of all defined schedules (service periods). It lets you:

- Update the time slots (this is referred to as schedule override)
- Display the list of resources that are associated with the schedule
- Delete schedule or resource overrides

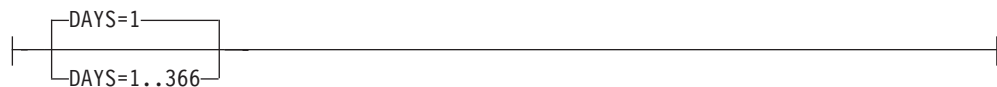
Syntax



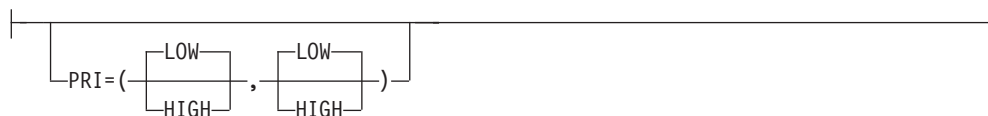
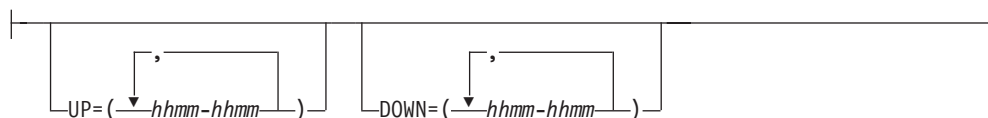
date:



days:



priority:

**timeslots:**

Parameters

schedule_name

Is the name of the schedule to be displayed.

resource

Specifies the resource for which the schedule overrides are to be displayed. The format is *name/type[/system]*

REQ

Specifies the request. The request can be:

BASE

Displays the base schedule information.

DEL

Deletes the overrides for the specified date.

DISP

Displays the base schedule, schedule override or resource overrides starting with the specified date.

REPL

Replaces the schedule or resource override with a new one.

RESOURCES

Displays the resources that use the specified schedule (service period).

DATE

Specifies the date in *yyyymmdd* format for which the delete or replace of the override should be done.

DAYS

Specifies the number of days for which the overrides should be displayed or deleted.

PRIORITY

Specifies the priority to be assigned to the override. The first value is the UP priority and the second value is the DOWN priority. Valid values are:

HIGH High priority

LOW Low priority

Both priorities are optional. The default is LOW. The priority values can be abbreviated.

UP

Specifies the UP start and stop times in the format *hhmm-hhmm*. Up to five time slots can be specified separated by a comma. The UP time slots define the time windows where the resource must or should be available. A priority of

INGSCHED

HIGH means that the resource must be available, while a priority of LOW means that the resource should be available.

DOWN

Specifies the DOWN start and stop times. The format is *hhmm-hhmm*. Up to five time slots can be specified separated by a comma. The DOWN time slots define the time window where the resource must/should be **Not** available (= unavailable). A priority of HIGH means that the resource must be unavailable, while a priority of LOW means that the resource should be unavailable. If you specify DOWN, specifying the UP priority becomes mandatory.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The INGSCHED command can only be used when system operations is initialized.

Usage

The INGSCHED command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

The automation agent as well as the automation manager verify each time slot being modified. Due to the delay between these verifications, a time slot of the current day that is still valid when the agent checks it, could be already invalid when the automation manager checks it. For example, the agent passes an override request to the manager at 10:59:59. The automation manager scheduler receives the request at 11:00:01 and rejects it because the starttime has already elapsed. This is indicated by return code 8 and reason code X'10C4' in message INGY1004. If this error occurs, you can fix it by correcting the time slot in error and reissuing the override.

Examples

The following panel is displayed:


```

INGKYSP0          SA 0S/390 - Command Dialogs      Line 1   of 3
Domain ID   = IPSNM   ----- INGSCHED -----      Date = 05/05/99
Operator ID = WAS                                           Time = 19:56:24

Cmd:  A Show Details  B Show Overrides  C Show Resources

Cmd Schedule  Description
-----
-  STD_SERV  Standard Service Period
-  TSOPLUS   Special service period for TSOPLUS
-  ONLINE    Schedule for CICS applications

Command ==>>
PF1=Help      PF2=End      PF3=Return    PF6=Roll
               PF8=Forward  PF9=Refresh   PF12=Retrieve

```

Figure 76. INGSCHED Command Dialog Panel 1

- The CMD field allows you to specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name and press Enter. The following command codes are available:
 - A** Show Details. Displays the service periods for the selected schedule without any override.
 - B** Show Overrides. Displays the overrides for the selected schedule starting with the current day for the next n days filling one panel.
 - C** Show Resources. Displays the list of resources/application groups that make use of the schedule. This can then be used to modify the service periods for the resource.
- The Schedule field shows the schedule (service period) defined in the sysplex.
- The Description field shows the description specified for the resource.

Showing Schedule Details

Overrides are shown in white.

The base time slots for a selected schedule are displayed when specifying command code A in front of the schedule. The following panel is displayed (note that INGSCHED REQUEST=BASE shows a similar panel):

```

INGKYSPI          SA OS/390 - Command Dialogs          Line 1 of 14
Domain ID = IPSFO ----- INGSCHED -----          Date = 10/25/99
Operator ID = NETOP1          Sysplex = KEY1PLEX          Time = 14:36:07

Schedule. . : SHIFT1          Weekday A.M. (06:00 - 11:59)

  Day    Pri  Strt/Stop  Strt/Stop  Strt/Stop  Strt/Stop  Strt/Stop
  ---    --  -----  -----  -----  -----  -----
MON  UP   H   0600-1159   -          -          -          -
    DN   H   0000-0559 1200-2400  -          -          -
TUE  UP   H   0600-1159   -          -          -          -
    DN   H   0000-0559 1200-2400  -          -          -
WED  UP   H   0600-1159   -          -          -          -
    DN   H   0000-0559 1200-2400  -          -          -
THU  UP   H   0600-1159   -          -          -          -
    DN   H   0000-0559 1200-2400  -          -          -
FRI  UP   H   0600-1159   -          -          -          -
    DN   H   0000-0559 1200-2400  -          -          -
SAT  UP   L   -          -          -          -          -
    DN   H   0000-2400  -          -          -          -
SUN  UP   L   -          -          -          -          -
    DN   H   0000-2400  -          -          -          -

Command ==>
PF1=Help      PF2=End          PF3=Return      PF6=Ro11
                PF9=Refresh          PF12=Retrieve
    
```

Figure 77. INGSCHED Command Dialog Panel 2

- The Schedule field shows the name of the schedule as defined in the sysplex.
- The Day field shows the day of the week.
- The Pri field shows the priority associated with the day of the week. It can have the following values:
 - H** High priority. The resource must be down/up.
 - L** Low priority. The resource should be down/up.
- The Strt/Stop field shows the begin and end times of the service window.

Showing Schedule Overrides

To display detailed information for a particular schedule, specify command code B in front of the schedule. The panel displayed then shows the start/stop times starting from the requested date. The default is starting from the current day. For each day, two rows are displayed.

- The first row (UP) shows the time slots when the associated resources should be up (available).
- The second row (DN) shows the time slots when the associated resources should be down (unavailable).

To modify the start/stop times for the various days, overtype them. Start/stop times that have been overwritten are shown in yellow. The overrides for a particular day can be removed with command code D, except for time slots that are affected by the current time. The time slots will then be restored to the original values.

```

INGKYSP2          SA OS/390 - Command Dialogs
Domain ID   = IPSFO   ----- INGSCHED -----   Date = 10/25/99
Operator ID = AFRANCK   Sysplex = KEY1PLEX           Time = 14:53:15

Schedule . . . : SHIFT1      Weekday A.M. (06:00 - 11:59)
Starting date => 10 / 25 / 1999   (mm/dd/yyyy)

C Date          Pri  Strt/Stop  Strt/Stop  Strt/Stop  Strt/Stop  Strt/Stop
-----
10/25/99 Mon UP  H  0600 1159
                   DN  H  0000 0559 1200 2400
10/26/99 Tue UP  H  0600 1159
                   DN  H  0000 0559 1200 2400
10/27/99 Wed UP  H  0600 1159
                   DN  H  0000 0559 1200 2400
10/28/99 Thu UP  H  0600 1159
                   DN  H  0000 0559 1200 2400
10/29/99 Fri UP  H  0600 1159
                   DN  H  0000 0559 1200 2400
10/30/99 Sat UP  L
                   DN  H  0000 2400
10/31/99 Sun UP  L
                   DN  H  0000 2400
11/01/99 Mon UP  H  0600 1159
                   DN  H  0000 0559 1200 2400
11/02/99 Tue UP  H  0600 1159
                   DN  H  0000 0559 1200 2400

Command ==>
PF1=Help      PF2=End      PF3=Return      PF6=Roll
PF7=Backward  PF8=Forward   PF9=Refresh     PF12=Retrieve

```

Figure 78. INGSCHED Command Dialog Panel 3

To delete individual overrides, blank out the appropriate time slot.

Showing Resources Related to a Schedule

A list of resources that use the selected schedule is displayed when specifying command code C in front of the schedule. A panel similar to the following is displayed.

INGSCHED

```
INGKYP3          SA OS/390 - Command Dialogs      Line 1   of 6
Domain ID   = IPSFO  ----- INGSCHED -----      Date = 10/25/99
Operator ID = NETOP1      Sysplex = KEY1PLEX      Time = 14:57:29

Schedule. . : SHIFT1      Weekday A.M. (06:00 - 11:59)

Cmd: S Show Overrides
Cmd Resource    Type  System  Description
-----
MSCSUBSYS      APL  KEY3   test application
MSCSUBSYS      APL  KEY4   test application
STD001AA00     APL  KEY1   A. M. shift (6:00 - 11:59)
STD001AA00     APL  KEY2   A. M. shift (6:00 - 11:59)
STD001AA00     APL  KEY3   A. M. shift (6:00 - 11:59)
STD001AA00     APL  KEY4   A. M. shift (6:00 - 11:59)

Command ==>
PF1=Help      PF2=End      PF3=Return   PF6=Ro11
               PF9=Refresh   PF12=Retrieve
```

Figure 79. INGSCHED Command Dialog Panel 4

- The Cmd field allows you to display specific information for each system. The following command code is available:
 - S** Shows overrides. Changes service periods for the resource group.
- The Resource field shows the name of the resource that uses the specified schedule.
- The Type field shows the type of the resource.
- The System field shows the name of the system that the resource resides on.
- The Description field shows the description specified for the resource.

The FIND/RFIND subcommands are supported. Refer to “Deciding the Format of the Command Output (Full-Screen only)” on page 13 for information.

Showing Resource Overrides

The following panel shows schedule overrides:

```

INGKYS P2          SA 0S/390 - Command Dialogs
Domain ID   = IPUFA ----- INGSCHED -----   Date = 07/04/00
Operator ID = NETOP1          Sysplex = AOCPLEX   Time  = 14:56:08

Resource . . . : STDT005AA00/APL/AOCA          Schedule . . . : SHIFT5
Starting date => 07 / 04 / 2000 (mm/dd/yyyy)

C Date          Pri  Strt/Stop  Strt/Stop  Strt/Stop  Strt/Stop  Strt/Stop
-----
07/04/00 Tue UP  L
                DN  H  0000 1900
07/05/00 Wed UP  L  1600 1800
                DN  H  1800 1900
07/06/00 Thu UP  L
                DN  H  0000 1900
07/07/00 Fri UP  L
                DN  H  0000 1900
07/08/00 Sat UP  L
                DN  H  0000 1900

A0F099I FUNCTION SUCCESSFULLY COMPLETED
Command ==>
PF1=Help      PF2=End      PF3=Return    PF6=Roll
PF7=Backward  PF8=Forward  PF9=Refresh   PF12=Retrieve

```

Figure 80. INGSCHED Command Dialog Panel 5

The panel shows the service windows currently defined for the resource. The service windows are determined as follows:

- Base service periods from the associated schedule, if any
- Override service periods from the associated schedule, if any
- Override service periods associated with the resource
- The Day field shows the day of the week.
- The Pri field shows the priority associated with the day of the week. It can have the following values:
 - H** High priority.
 - L** Low priority.
- The Strt/Stop fields show the begin and end times of the service window. For each day, two rows are displayed.
 - The first row (UP) shows the time slots when the associated resources must be up (available).
 - The second row (DN) shows the time slots where the associated resources must be down (unavailable).

Time slots that are overrides for the resource are shown in pink. Time slots defined for the base schedule are shown in green, while its overrides are shown in yellow. Time slots that are already passed cannot be deleted or overridden. To set an override, type over the appropriate time field.

INGSEND Using RMTCMD

Purpose

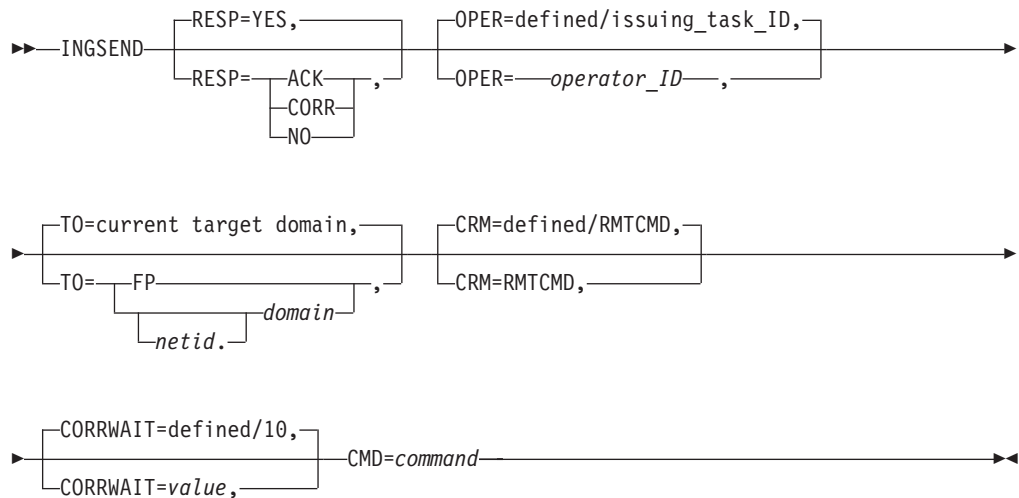
INGSEND routes commands to other domains using NetView RMTCMD.

INGSEND Using RMTCMD

INGSEND can use either gateways or NetView RMTCMD to send commands. See "INGSEND Using Gateway Sessions" on page 165 for information about INGSSEND using gateways.

Use the target parameter with the system operations commands if possible.

Syntax



Parameters

RESP

Specifies whether you want to receive an asynchronous response or acknowledgement when you issue the command. Valid options are:

ACK

If you use this option:

- A message is displayed on the operator's NCCF console stating whether or not the command executed successfully
- If the command executed successfully, message AOF672I will be displayed
- If the command executed but failed, message AOF671I will be displayed
- If the command could not be delivered to the target domain or RMTCMD autotask, or was delivered and failed to begin execution, the appropriate NetView RMTCMD message will be displayed to explain the failure.

NO

Specifies that you do not want to receive any output from the command.

YES

Specifies that you want the output from the command displayed on your NCCF console.

CORR

Specifies that you want the output from the command to be correlated back to the INGSSEND RESPONSE DISPLAY panel. See *Restrictions* on correlating command output.

OPER

Specifies the operator upon which to issue the command.

operator_ID can be defined using the customization dialog for each domain. If not defined, it will default to the issuing task ID.

Notes:

1. If operator alias GATOPER or BASEOPER is specified, the operator ID will default to the issuing task id.
2. If the orig.operid = target.operid in the OPER keyword, the command *will* be issued.

TO

Specifies the domain to which the command is being issued.

[netid].domain

Specifies the domain to which the command is being issued. It can be defined using the customization dialog. Netid is optional.

FP Specifies that the command is to be routed to the current focal point.

Notes:

1. When INGSSEND is issued on the current focal point, and TO=FP is specified, the command *will* be issued.
2. If this parameter (TO=...) is omitted, the current target domain (that is, the last domain you sent a command to) is used, if one is set. If none, error message AOF102I will be issued.

CRM

Specifies that the command routing mechanism to be used is the NetView RMTCMD command.

A default command routing mechanism can be predefined for each target system using the customization dialog. Refer to *System Automation for OS/390 User's Guide* for further information. If you do not predefine a command routing mechanism in this way, it will default to RMTCMD.

CORRWAIT

Specifies the CORRWAIT value (in seconds) to be used when INGSSEND uses NetView PIPES. The Corrrwait PIPE stage is necessary to trap asynchronous command output. A default for this value can be predefined for each target system, using the customization dialog. If not predefined, the default is 10 seconds. For more information on the use of this value, see discussion of the PIPE command in *NetView Operation*.

CMD

Specifies the command to be executed. The length of the command can be up to 213 characters.

Restrictions and Limitations

- The INGSSEND command will not execute under the primary POI task (PPT).
- INGSSEND uses the NetView PIPE command to trap the message output from the routed command. Not all commands are PIPE enabled, which means that the command may not be treated as requested in the RESP keyword. Some examples of commands that are not PIPE enabled are:
 - MVS commands on a NetView not exploiting EMCS
 - Commands that produce full screen output
 - A NetView command that is not PIPE enabled

INGSEND Using RMTCMD

For more information on RMTCMD and PIPE commands, see *NetView Operation*.

Usage

If the command you are issuing contains either a space, a comma, or a delimiter, you should delimit the command.

You can delimit the command you are sending with either single quotation marks, double quotation marks, or '/'. If you wish to include an occurrence of the delimiter character within the delimited string, then the character must be preceded by another delimiter character. The delimiter character must appear as the first character of the string after the 'CMD='. INGSEND sends the command defined by the start and end delimiter. Examples of INGSEND with commands that do use delimiters are included below.

Examples

```
"INGSEND RESP=ACK,TO=CNM01,CMD=START TASK=DSILOG"
```

Command START TASK=DSILOG will be routed with the following:

Keyword	Value	Reason
TO	CNM01	Specified
RESP	ACK	Specified
OPER	OPER4	Predefined
CRM	RMTCMD	Default

The following message will be issued to OPER2' NCCF console:

```
"AOF672I COMMAND (START TASK=DSILOG) WAS EXECUTED IN DOMAIN CNM01 BY A  
RMTCMD COMMAND FROM OPERATOR OPER2"
```

OPER4 is defined using the customization dialog. The above example does not use delimiters.

The following example does not use delimiters as far as INGSEND is concerned even though there are delimiter characters in it.

```
INGSEND RESP=ACK,TO=CNM01,CMD=MVS $D'RMF'
```

The following is correctly delimited.

```
INGSEND RESP=ACK,TO=CNM01,CMD='ACT CHP123'
```

The following example is also correctly delimited and contains the delimiter character within the delimiters. This command is equivalent to the second example.

```
INGSEND RESP=ACK,TO=CNM01,CMD='MVS $D'RMF'
```

The following example is also correctly delimited and is an alternative way to type the previous example.

```
INGSEND RESP=ACK,TO=CNM01,CMD=/MVS $D'RMF'/
```

The following example will be passed as correctly delimited but only 'MVS \$D' will be sent as the end delimiter follows the "D" thus defining the command.

```
INGSEND RESP=ACK,TO=CNM01,CMD='MVS $D'RMF' "
```


INGSEND Using Gateway Sessions

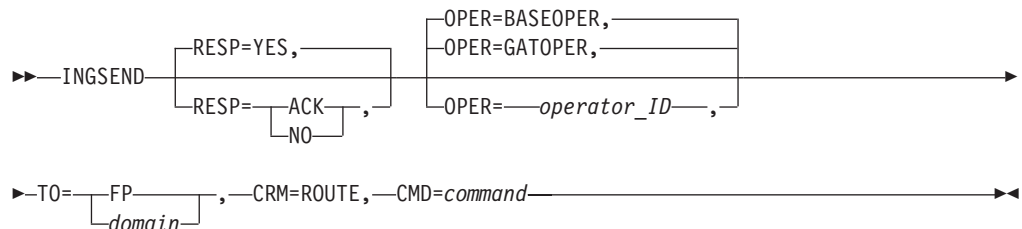
Purpose

INGSEND routes commands to other domains using gateway sessions.

INGSEND can use either gateways or NetView RMTCMD to send commands. See "INGSEND Using RMTCMD" on page 161 for information about INGSSEND using RMTCMD.

Use the target parameter with the system operations commands if possible.

Syntax



Parameters

RESP

Specifies whether you want to receive an asynchronous response or acknowledgement when you issue the command.

ACK

If you use this option:

- A message is displayed on the operator' NCCF console stating whether or not the command executed successfully
- If the command executed successfully, message AOF672I will be displayed
- If the command executed but failed, message AOF671I will be displayed

NO

Specifies that you do not want either a response or an acknowledgement.

YES

Specifies that you want the output from the command displayed on your NCCF console. This is the default.

OPER

Specifies the operator that issues this command. Do not specify the PPT.

GATOPER

Specifies the GATOPER operator on the target system. This is the default for a directly connected domain. This gives the fastest response.

BASEOPER

Specifies the BASEOPER operator on the target system. This is the default for an indirectly connected domain.

INGSEND Using Gateway Sessions

operator_ID

Specifies a particular operator ID. You can specify any SA OS/390 automation operator or human operator ID.

TO

Specifies the system to which the command is being issued.

domain

Specifies the system to which the command is being issued.

FP Specifies that the command is to be routed to the current automation focal point.

Note: When INGSSEND is issued on the current focal point, and TO=FP is specified, the command is **NOT** issued.

CRM=ROUTE

Specifies that the command routing mechanism to be used is the NetView ROUTE command.

A default command routing mechanism can be defined using the customization dialog. If you do not predefine a command routing mechanism in this way, it will default to RMTCMD.

CMD

Specifies the command to be executed on target system.

Restrictions and Limitations

Do not issue the NetView LOGOFF command. Do not issue commands that require a confirmation at the target system, for example SHUTSYS VERIFY=YES. For more information on commands that you can and cannot send to another system, refer to *NetView Customization: Writing Command Lists*.

Usage

You can enclose the command you are sending in either single or double quotation marks, or / (slash).

You can delimit the command you are sending with either single quotation marks, double quotation marks, or /. If you wish to include an occurrence of the delimiter character within the delimited string, then the character must be preceded by another delimiter character. The delimiter character must appear as the first character of the string after the 'CMD='. INGSSEND sends the command defined by the start and end delimiter. Examples of INGSSEND with commands that do use delimiters are included below.

Note: Before you send a command, check the status of the gateway session to the target system using the Operator Interface. Refer to *System Automation for OS/390 User's Guide* for further information.

Examples

```
"INGSEND TO=CNM01,CRM=ROUTE,CMD=D NET,APPLS"
```

Command D NET,APPLS will be routed with the following:

Keyword	Value	Reason
TO	CNM01	Specified
RESP	YES	Default

INGSEND Using Gateway Sessions

Keyword	Value	Reason
CRM	ROUTE	Specified
OPERID	GATOPER	Default for ROUTE

The above example does not use delimiters.

The following example does not use delimiters as far as INGSEND is concerned even though there are delimiter characters in it.

```
INGSEND RESP=ACK,TO=CNM01,CRM=ROUTE,CMD=MVS $D'RMF'
```

The following is correctly delimited.

```
INGSEND RESP=ACK,TO=CNM01,CRM=ROUTE,CMD='ACT CHP123'
```

The following example is also correctly delimited and contains the delimiter character within the delimiters. This command is equivalent to the second example.

```
INGSEND RESP=ACK,CRM=ROUTE,TO=CNM01,CMD='MVS $D'RMF'
```

The following example is also correctly delimited and is an alternative way to type the previous example.

```
INGSEND RESP=ACK,CRM=ROUTE,TO=CNM01,CMD=/MVS $D'RMF'/
```

The following example will be passed as correctly delimited but only 'MVS \$D' will be sent as the end delimiter follows the "D" thus defining the command.

```
INGSEND RESP=ACK,TO=CNM01,CRM=ROUTE,CMD='MVS $D'RMF' "
```

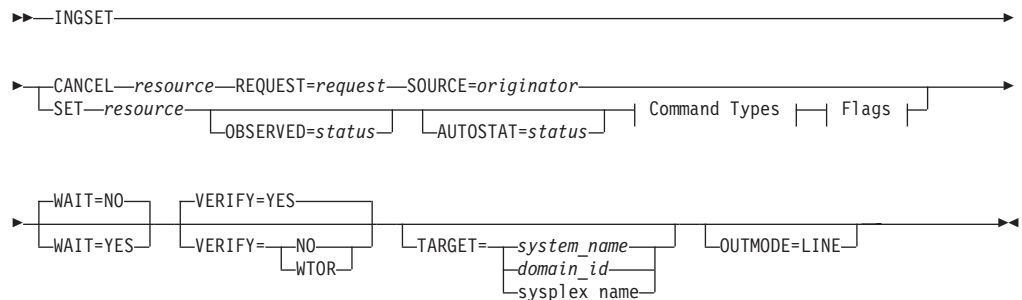
INGSET

Purpose

INGSET is a linemode command that is primarily used in automation clists. With the INGSET command you can:

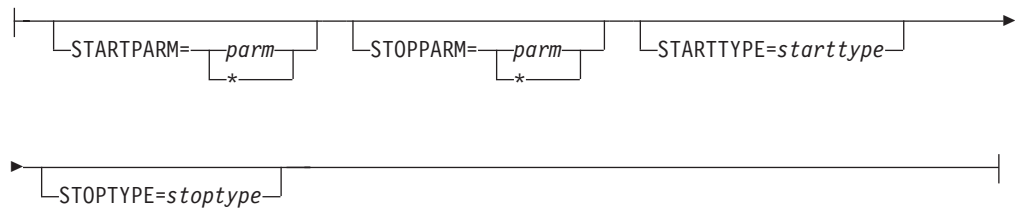
- Remove an operator's request
- Set a status attribute or automation flag for a resource or application group
- Clear or set the hold flag for a resource or application group
- Set or reset the Group failed flag
- Set the start or stop type for a resource

Syntax

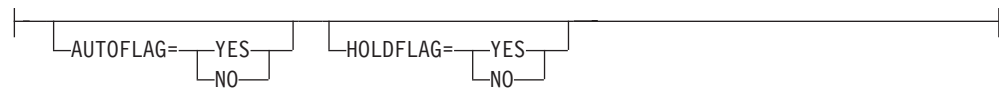


INGSET

Command Types:



Flags:



Parameters

CANCEL

Removes a request.

resource

Specifies the resource for which the request is to be cancelled.

SET

Sets one or more resource attributes. The following settings can be made:

- Observed status
- Automation status
- Automation flags
- Hold flag
- Group failed flag
- Start type for next startup
- Stop type for next shutdown

resource

Specifies the resource for which an attribute is to be set.

REQUEST

Causes the request to be cancelled. You can specify one of the following:

- MAKEAVAILABLE
- MAKEAVAILABLES
- MAKEUNAVAILABLE
- MAKEUNAVAILABLESC
- MAKEUNAVAILABLESO

SOURCE

Specifies the source of the request, for example OPERATOR, or AUTOOPS.

OBSERVED

Specifies that the observed status is to be displayed.

AUTOSTAT

Specifies that the automation status is to be displayed. It can be abbreviated, for example, to ID for idle.

WAIT

Specifies whether or not to wait until the request is complete.

VERIFY

Specifies whether cancelling the request is to be verified. The following specifications are valid:

YES The list of affected resources is displayed before the request is removed. The operator is prompted to verify the list.

WTOR

The list of affected resources is displayed before the request is removed. The operator is prompted to verify the list via WTOR.

NO No verification is performed. VERIFY is set to NO for AUTOTASKs. Otherwise it is set to YES.

The default depends on the type of task that the INGREQ command runs on.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

STARTPARM

Is the START parameter that is passed to the command.

STOPPARM

Is the STOP parameter that is passed to the command.

STARTTYPE

Specifies the type of commands to be issued for the resource’s next startup (as defined in the policy database).

STOPTYPE

Specifies the type of commands to be issued for the resource’s next shutdown.

AUTOFLAG

Specifies the automation flag. It can be either YES or NO. It can be abbreviated.

HOLDFLAG

Specifies that the resource is not to be started.

Return Codes

The following return codes can occur:

- 0 The request was processed successfully.
- 1 An error occurred while processing the request.
- 4 Exit requested.

Usage

Note that if you cancel a verification process of a list of affected resources, SA OS/390 may issue a slightly misleading message. Although the verification is cancelled, message A0F0991 Function successfully completed may be returned.

INGSET

Examples

To cancel a previously issued request to make a resource available, type the following:

```
INGSET CANCEL TSO/APL/KEY1 REQUEST=AVAILABLE SOURCE=OPERATOR
```

To set the starttype for the next startup of a JES2 resource to COLD, type the following:

```
INGSET SET JES2/APL/KEY1 STARTTYPE=COLD
```

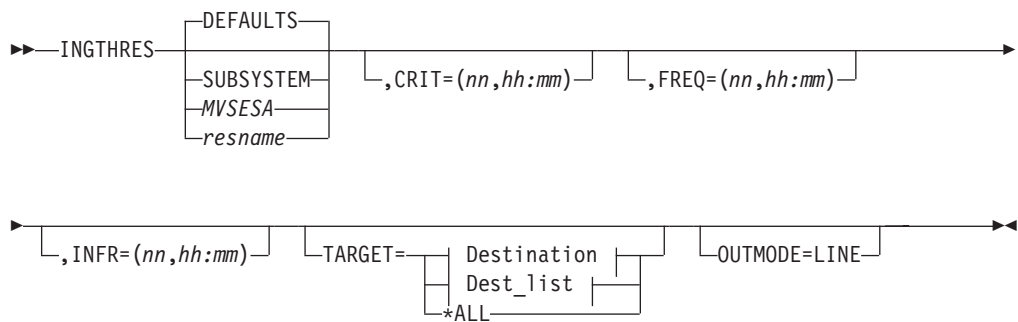
INGTHRES

Purpose

INGTHRES sets thresholds for a specific resource. It also sets the defaults for all MVS subcomponents, for all subsystems, or for MVSESA components.

Note: INGTHRES does not work for minor resources.

Syntax



Destination:



Dest_list:



Parameters

If you do not specify a subsystem, the INGTHRES panel is displayed.

DEFAULTS

Specifies DEFAULTS, which establishes default settings for all automated

resources. All automated resources that do not have their own threshold settings or that do not belong to a group that has its own settings take these defaults.

SUBSYSTEM

Sets defaults for all subsystems.

MVSESA

Sets defaults for all MVS subcomponents.

rename

Specifies a particular resource, such as WTOBUF. You can specify any automated resource.

CRIT

Specifies values for the critical threshold.

nn Specifies the number of errors before the threshold is reached. You can specify a maximum of 10.

hh:mm

Specifies the time span before the threshold is reached: hh = hours, mm = minutes.

FREQ

Specifies values for the frequent threshold.

nn Specifies the number of errors before the threshold is reached. You can specify a maximum of 10.

hh:mm

Specifies the time span before the threshold is reached: hh = hours, mm = minutes.

INFR

Specifies values for the infrequent threshold.

nn Specifies the number of errors before the threshold is reached. You can specify a maximum of 10.

hh:mm

Specifies the time span before the threshold is reached: hh = hours, mm = minutes.

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

Restrictions and Limitations

Note: The changes you make are in effect only until the next time the automation control file is loaded.

The INGTHRES command can only be used when SA OS/390 is initialized.

INGTHRES

Usage

SA OS/390 uses threshold settings to determine when to stop trying to recover a component or restart a subsystem. The primary use of thresholds is to track subsystem abends and to make sure that the abend and recovery cycle does not become an infinite loop.

When a threshold is crossed, SA OS/390 performs the action specified for that threshold in the automation control file. For components, this action is customer-defined—ask your SA OS/390 administrator. For subsystems, the following actions occur:

Threshold exceeded	What SA OS/390 does
Infrequent	Issues warning message
Frequent	Issues warning message
Critical	Stops Restart automation and issues a message to that effect

All three threshold values (CRIT, FREQ, and INFR) can be coded on one invocation of the command.

The Critical threshold should specify more errors or a shorter time than the Frequent and Infrequent thresholds.

Examples

To set defaults for all automated resources, type:

```
ingthres defaults,crit=(2,00:14),freq=(2,01:00),infr=(4,04:00)
```

To add or replace the critical threshold for the resource JES2, type:

```
ingthres jes2,crit=(2,02:00)
```

If you type `dispthrs jes2`, you see the following command dialog:


```

AOFKAASR          SA OS/390 - Command Dialogs
Domain ID   = IPUF9   ----- INGTHRES -----   Date = 12/17/97
Operator ID = NETOP1                               Time = 15:50:05

Specify thresholds and resource changes:

Resource   => JES2           Group or specific resource
System     => AOC9           System name, domain ID, sysplex name or *all

Critical   => 4   errors in 00:15   Time (HH:MM)
Frequent   => 2   errors in 00:30   Time (HH:MM)
Infrequent => 1   errors in 01:00   Time (HH:MM)

Pressing ENTER will set the THRESHOLD values

Command ==>
PF1=Help   PF2=End   PF3=Return   PF6=Ro11
    
```

Figure 81. Display of Threshold Settings for JES (DISPTHRS JES)

This panel shows the Critical threshold (4 errors in 15 minutes), the Frequent threshold (2 errors in 30 minutes), and the Infrequent threshold (1 error in 1 hour). If JES reaches the Critical threshold, Restart automation does not continue. If it crosses the Frequent or Infrequent threshold, a message is sent to notification operators to inform them of this.

INGTOPO

Purpose

The INGTOPO command collects SA OS/390 topology information from target systems and maintains structures of objects within RODM that correspond to it.

Syntax



Parameters

INIT

In INIT mode, INGTOPO builds or updates the SA OS/390 objects in RODM in accordance with the automation managers of all sysplexes defined in the INGTOPOF file. INIT is the mode which you must specify at the very first task of INGTOPO. In this case, you must also specify the name of the task under which the Topology Manager runs.

INGTOPO

You can call INGTOPO with INIT any time. INGTOPO then either rebuilds the SA OS/390 objects from scratch or just performs the necessary update operations. In the former case all event-based minor resources, for example, WTORS, that existed in RODM will be lost, since these minor resources do not exist within the automation manager and therefore cannot be built.

If you want to know about the result of your INGTOPO INIT request, look into message ING063I and check the return code that it contains.

task_name

Specifies the autotask that is used for status collection on the focal-point system.

plex

Specifies the sysplex.

REBUILD

In REBUILD mode, INGTOPO removes all SA OS/390 objects in RODM for the specified sysplex and rebuilds them from scratch. Note that after calling INGTOPO with REBUILD, all event-based minor resources, for example, WTORS, that existed in RODM for this sysplex will be lost, since these minor resources do not exist within the automation manager and therefore cannot be built.

SWEEP

All SA OS/390 topology manager objects in RODM are erased and all internal information is reset.

Restrictions and Limitations

To run the INGTOPO command the Multisystem Manager (MSM) must be active.

Usage

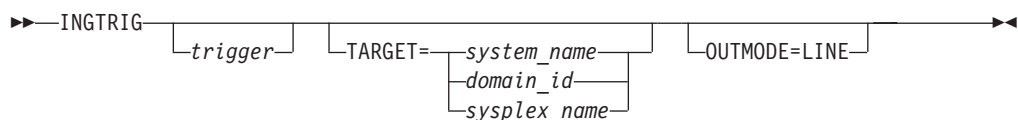
The INGTOPO command should be issued from the NetView that provides status updates to NMC.

INGTRIG

Purpose

INGTRIG shows all triggers that are defined and used by resources within the sysplex.

Syntax



Parameters

trigger

Specifies the name of the trigger for which the resource using the trigger should be displayed.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

Triggers of down-level systems cannot be shown.

Usage

The INGTRIG command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

If you type ingtrig a panel similar to the following is displayed.

```

INGKYTRO          SA OS/390 - Command Dialogs          Line 1 of 10
Domain ID = IPSFP ----- INGTRIG -----          Date = 10/26/99
Operator ID = NETOP1          Sysplex = KEY1PLEX          Time = 10:55:16

Cmd: S show associated resources

Cmd Trigger      Description
-----
BATCHSTP        Batch jobs B000P100,P200,P300
BATCHSTR        Batch jobs B000S100,S200,S300
MDOTRG13        Trigger3
MDOTRG1         Trigger1
MDOTRG2         Trigger2
MSCTRG1         scheduling test trigger 1
MSCTRG2         scheduling test trigger 2
TRIGGER6        Hourly window + batch controlled events
TRIGGER7        Command controlled events, No UNSET
TRIGGER8        Command controlled events, diff. unsets

Command ==>
PF1=Help      PF2=End      PF3=Return      PF6=Ro11
               PF9=Refresh      PF12=Retrieve

```

Figure 82. INGTRIG Command Dialog Panel 1

This panel shows all triggers that are defined within the scope of the automation manager.

- The CMD field allows you to display specific information for each system. The following command code is available:

S Show associated resources. Displays all resources that use the trigger.

INGTRIG

- The Trigger field shows the name of the trigger.
- The Description field is self-explanatory.

The FIND/RFIND and SORT subcommands are supported. Refer to “Deciding the Format of the Command Output (Full-Screen only)” on page 13 for information.

Showing Resources

Specify command code S in front of a trigger, or `ingtrig triggername` to display all resources that are associated with that selected trigger:

```
INGKYTRI          SA OS/390 - Command Dialogs      Line 1   of 4
Domain ID   = IPSFP   ----- INGTRIG -----      Date = 10/26/99
Operator ID = AFRANCK       Sysplex = KEY1PLEX          Time = 11:16:54

Trigger . . : TRIGGER6      Hourly window + batch controlled events

Cmd: S show trigger details
Cmd Resource   Type System   Description
-----
TRGG006AA10   APL  KEY1
TRGG006AA10   APL  KEY2
TRGG006AA10   APL  KEY3
TRGG006AA10   APL  KEY4

Command ==>
PF1=Help      PF2=End      PF3=Return   PF6=Ro11
               PF9=Refresh  PF12=Retrieve
```

Figure 83. INGTRIG Command Dialog Panel 2

- The Cmd field allows you to specify command codes to display specific information for the trigger. The following command code is available:
 - S Show trigger details. Initiates the DISPTRG command dialog for the selected resource.
- The Resource field shows the name of the resource.
- The Type field shows the type of the resource.
- The System field shows the name of the system where the resource resides.
- The Description field shows the description specified for the resource.

The FIND/RFIND and SORT subcommands are supported. Refer to “Deciding the Format of the Command Output (Full-Screen only)” on page 13 for information.

INGUSS

Purpose

The INGUSS command allows an automation procedure to send commands to OS/390 UNIX System Services.

Syntax



Parameters

JOBNAME=*jobname*

This is the MVS job name used for the newly created address space which runs the specified command. If you do not specify a job name, INGCUNIX is the default.

UNIX_command

This is the OS/390 UNIX command that is issued under the user ID of the resource this command belongs to. It is not possible to issue commands for other user IDs. It can be any OS/390 UNIX command or the name of a shell script (both fully qualified). The resource that issues this command must have an application type USS.

Restrictions and Limitations

The INGUSS command can be called only by another automation procedure or by a command processor. The common routine AOCQRY must be invoked first to set the necessary TGLOBALs.

Note: The INGUSS command can only be used if the primary JES is available. Therefore, OS/390 UNIX resources using INGUSS need a HASPARENT dependency to JES. Most of all OS/390 UNIX applications have this dependency. If you want to issue prestart commands, an additional PREPAVAILABLE dependency is necessary. This is because SA OS/390 does not create an address space without JES.

Usage

The following variables can be used to obtain data of the resource, if INGUSS is issued from the automation policy:

&SUBSPATH

The path statement of the resource. The resource must be a process.

&SUBSFILE

The filename of the resource. The resource must be a file.

&SUBSPORT

The port number of the resource. The resource must be a port.

&SUBSUSSJOB

The job name assigned to a process. The resource must be a process.

&SUBSAPPL

The application name.

SUBSASID

The address space ID of the address space the process runs in. The resource must be a process.

INGUSS

The information for &SUBSUSSJOB and &SUBSASID is refreshed with each monitoring cycle. If a process forks and gets a new job name (normally a digit is appended at the end of the original job name), SA OS/390 will detect the new job name after the next scheduled monitoring. This works only if SA OS/390 internal process monitoring is used.

When the resource becomes inactive, the values of &SUBSUSSJOB and &SUBSASID are cleared.

In addition, for process resources %PID% can be used to get the PID of a process. The command `INGUSS /bin/kill %PID%` results in determining the PID of the process defined by the path of the resource and replacing %PID% by the real value of the process ID.

When issuing a command, SA OS/390 switches to the users home directory and sets the following environment variables for the user the resource belongs to:

- HOME
- USER
- SHELL

The login shell uses these environment variables to detect which UNIX profiles to execute. If the started program should get the whole environment of the user as if this user was logged on, you must use a login shell as start command.

Recommendation:

When using INGUSS to start applications, IBM recommends to use the JOBNAME parameter in order to get a unique job name. For example,

```
INGUSS JOBNAME=&SUBSJOB UNIX_start_command
```

Otherwise, all applications started by SA OS/390 without this parameter will have the same job name INGCUNIX (if the application itself does not change the job name).

If the job name is not unique, specify job type MVS.

Examples

To start the inetd through a login shell, issue the following command:

```
INGUSS JOBNAME=INETD /bin/sh -L -c '/usr/sbin/inetd /etc/inetd.conf'
```

JOBNAME=INETD

this is optional, it assigns the MVS job name 'INETD' to the started process

/bin/sh

the shell

-L option for login shell

-c option to the shell to execute the following command:

```
'/usr/sbin/inetd /etc/inetd.conf'
```

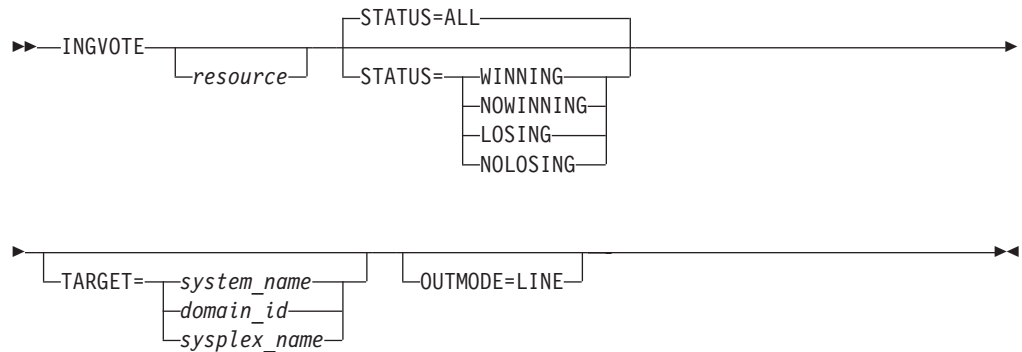
this is the command that is executed by the login shell

INGVOTE

Purpose

The INGVOTE command either displays all pending requests that were entered from the automation manager or it displays all pending votes that are present for a given resource.

Syntax



Parameters

resource

Specifies the resource to be displayed. The format is *name/type[/system]*. Wildcard is supported.

STATUS

Specifies whether to display the winning or losing requests or votes only. The default is ALL. The STATUS parameter can have the following values:

WINNING Displays the winning requests or votes only.

NOWINNING Displays the losing requests or votes only.

LOSING Displays the losing requests or votes only.

NOLOSING Displays the winning requests or votes only.

ALL Displays all winning and losing requests or votes. This is the default.

The values can be abbreviated.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

None.

Usage

The INGVOTE command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Automation manager commands are not supported on downlevel systems. Note that whenever an automation manager command is issued to a target system that is downlevel, the NetView error message DSI002I will not contain the name of the command that was issued but the name of the associated slave command.

Examples

If you type ingvote a panel similar to the following is displayed:

```

INGKYRQ2          SA OS/390 - Command Dialogs          Line 1   of 72
Domain ID   = IPUFA   ----- INGVOTE -----          Date = 07/04/00
Operator ID = NETOP1          Sysplex = AOCPLEX          Time = 15:42:32

Cmd: C Cancel request  K Kill request   S Show details   V Show votes
Cmd Name      Type System  Request Data
-----
  BNKNACHT    SVP          Req : MakeUnAvailable
              Org : SCHEDULE
              Pri : 01120000  Should Be Down - Schedule
              Stat: Winning/Unsatisfied

  BZOMSCMV    SVP          Req : MakeAvailable_Only
              Org : SCHEDULE
              Pri : 02140000  Must Be Up - Schedule
              Stat: Winning/Unsatisfied

  HOURLY      SVP          Req : MakeAvailable_Only
              Org : SCHEDULE
              Pri : 02140000  Must Be Up - Schedule
              Stat: Winning/Unsatisfied

  HUGDAY      SVP          Req : MakeAvailable_Only

Command ==>>
PF1=Help      PF2=End      PF3=Return   PF6=Ro11
               PF8=Forward  PF9=Refresh  PF12=Retrieve

```

Figure 84. INGVOTE Command Dialog Panel

- The CMD field allows you to specify command codes. To use one of the command codes shown, type the appropriate letter next to the resource name and press Enter. The following command codes are available:
 - C** Cancels the request
 - K** Cancels the request without showing the verification panel
 - S** Shows details about the request
 - V** Shows all the votes or requests that have been entered for that resource
- The Type field shows the type of the resource.
- The Name field shows the name of the resource that the request was made against.
- The Request Data field shows details about the request. Refer to the online help for further information.

The subcommands FIND/RFIND are supported. Refer to “Deciding the Format of the Command Output (Full-Screen only)” on page 13 for information.

JES2

Purpose

The JES2 command issues JES2 subsystem commands so that you get a full-screen response you can page through. This is in contrast to issuing JES2 commands on the SA OS/390 command line and watching the response roll off the screen.

Syntax

```
▶▶—JES2—jes2_command—▶▶
```

Parameters

jes2-command

Specifies any valid JES2 command name, including parameters.

Restrictions and Limitations

None.

Usage

Specify the operands using any valid JES2 command syntax.

See *JES2 Commands* for command and syntax definitions.

Examples

The DU command is used to display the status of all or specified local JES2 controlled non-direct access devices. If you type `jes2 du,all` you see a full-screen display similar to the following:

```
AOFK3GEN          SA OS/390 - Command Response Display    Page 1    of 1
Command:  MVS $ DU,ALL,L=Z
                MVS $ DU,ALL,L=Z
$HASP636 17.24.23 $DU,ALL
OFFLOAD1 DSN=SYS4.JES2.OFFLOAD1,STATUS=DRAINED,
          ARCHIVE=ONE
OFFLOAD2 DSN=SYS4.JES2.OFFLOAD2,STATUS=DRAINED,
          ARCHIVE=ONE

Action ==>
```

Figure 85. JES2 DU,ALL Display

In this example, the ALL operand displays detailed information about all local JES2 controlled devices, active remote devices, and internal readers. Note that the command line shows the actual JES2 command that was issued and not what you typed in.

This panel can also be displayed using the SHOWME command. See “SHOWME” on page 195 for more information.

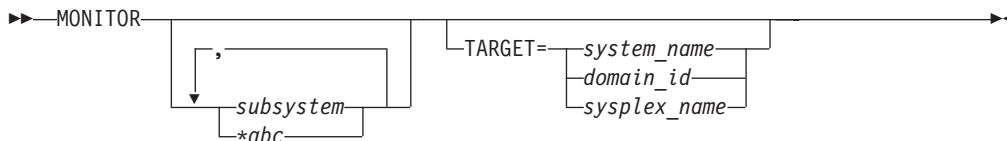
MONITOR

MONITOR

Purpose

The MONITOR command causes the SA OS/390 monitoring routine to be run.

Syntax



Parameters

subsystem

Is the name of the subsystem you want monitored. It can be a list of subsystems. The default is that all subsystems will be monitored.

**abc*

Has the effect of a filter to be applied for monitoring. Only resource names that match the filter criteria are monitored. Wildcard is supported. Valid specifications are, for example, **abc*, *abc**, or **abc**.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The MONITOR command can only be used when SA OS/390 is initialized.

The output of the MONITOR command is always in linemode.

Usage

MONITOR can be used whenever you want to validate your current automation agent status information.

Examples

To monitor TSO, VTAM and all subsystems that start with CICS, type the following:

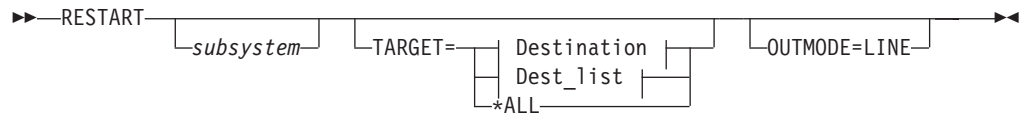
```
monitor TSO,VTAM,CICS*
```

RESTART

Purpose

The RESTART command examines a specified subsystem, or all subsystems defined to SA OS/390 on a particular system and sets the HOLD flag to No.

Syntax



Destination:



Dest_list:



Parameters

subsystem

Specifies the name of the subsystem to be allowed to start. If no subsystem name is specified, SA OS/390 attempts to restart all subsystems.

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The RESTART command can only be used when SA OS/390 is initialized.

Usage

The RESTART command can be used to enable the subsystems for start after the operator has replied NOSTART to the AOF603D reply.

RESYNC

Purpose

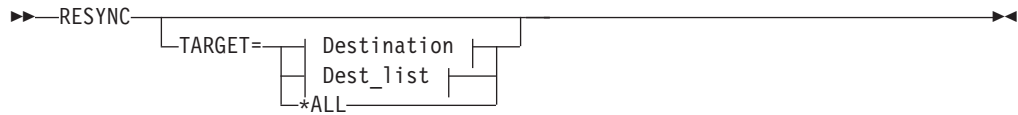
This command causes SA OS/390 to rerun its initial status determination routines. This will refresh the current status information for:

- Subsystems (as if at an automation control file reload)
- Outstanding replies
- SA OS/390-controlled gateway and monitor timers
- MVS console associations
- Sysplex timing

RESYNC

- Couple data sets
- Coupling facilities

Syntax



Destination:



Dest_list:



Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

- The RESYNC command can only be used when SA OS/390 is initialized.
- At the end of resynchronization, subsystems in a DOWN or RESTART status may be automatically (re)started.

Usage

This command should be used only when your statuses have gone out of synchronization with reality. Possible causes of this are SSI task failure or problems with your NetView automation table.

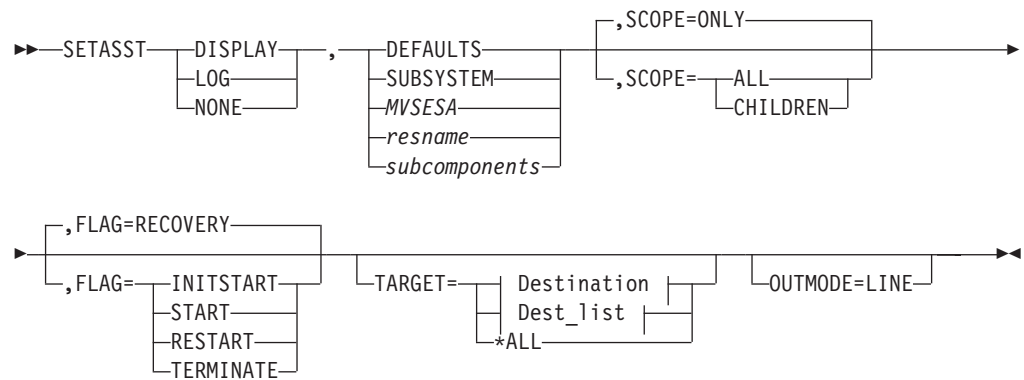
SETASST

Purpose

SETASST enables you to change a resource’s assist mode settings.

Syntax

SETASST



Destination:



Dest_list:



Parameters

DISPLAY

Changes the assist mode setting for the selected automation flag to Display. This sets assist mode interactively, which means that SA OS/390 sends a prompt to the SDF display whenever automation is triggered. This prompt tells you what the automation is intending to do, and you can decide whether or not to continue.

LOG

Changes the assist mode setting for the selected automation flag to log. This turns assist mode on in log mode, which means that SA OS/390 sends the assist mode prompt to the netlog. You can run the system as normal, and when an event occurs that would normally trigger automation, its details are written to the netlog.

NONE

Turns assist mode off for the selected automation flag.

DEFAULTS

Specifies the value DEFAULTS. This sets automation flags for all resources that do not have their own flags defined, or that do not belong to a group that has flags defined.

SUBSYSTEM

Sets defaults for all subsystems.

MVSESA

Sets defaults for all MVS subcomponents.

SETASST

resname

Specifies the name of a particular resource, for example, WTOBUF. You can specify any automated resource.

subcomponents

Specifies any subcomponents of the resource. Enter a period (.) between each subcomponent name.

SCOPE

Specifies whether to change this resource and its dependent resources, dependent resources only, or this resource alone.

ONLY

Specifies this resource alone. This is the default.

ALL

Specifies this resource and its dependent resources.

CHILDREN

Specifies dependent resources only.

FLAG

Specifies the automation flags to change the assist mode settings for, (depending on whether you specified Display, Log, or None). Refer to *System Automation for OS/390 Customizing and Programming* for further information on automation flags.

INITSTART

Changes the assist mode setting for the Initstart flag.

START

Changes the assist mode setting for the Start flag.

RECOVERY

Changes the assist mode setting for the Recovery flag.

TERMINATE

Changes the assist mode setting for the Shutdown flag.

RESTART

Changes the assist mode setting for the Restart flag.

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

Restrictions and Limitations

Do not activate SETASST DISPLAY mode for any resources until VTAM is active and you are able to log on to NetView. Doing so can result in situations where automation is unable to continue as you are unable to access SDF to respond to the ASSIST DISPLAY dialog.

The SETASST command can only be used when SA OS/390 is initialized.

Usage

SETASST is used as an alternative to updating and reloading the automation control file. SCOPE=ONLY is the only valid scope for DEFAULTS, resource type, and subcomponents. ALL and CHILDREN are not valid.

Examples

To turn the assist mode on in LOG mode for the TSO restart flag, type the following:

```
setasst log,tso,flag=restart
```

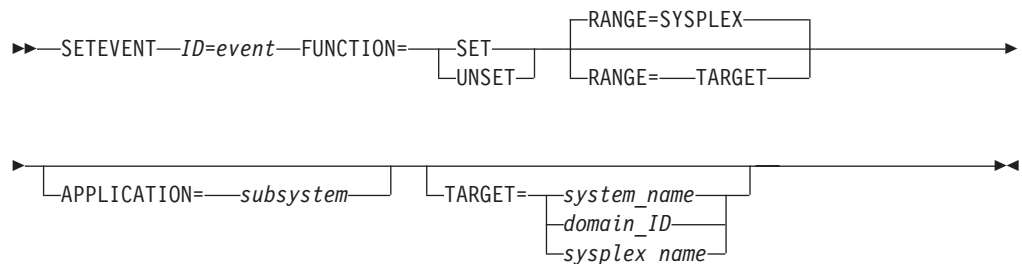
SETEVENT

Purpose

Sets or resets an event. It broadcasts a request to all systems in a sysplex where the function is performed locally.

The SETEVENT command exists for compatibility reasons. It is recommended that you use INGEVENT instead. For a description of the INGEVENT command refer to “INGEVENT” on page 115.

Syntax



Parameters

ID Specifies the name of the event.

FUNCTION

Specifies the function to be performed.

SET

Sets the event for all applications having the event defined and performs the trigger checking for these applications.

UNSET

Resets the event in all applications having the event defined.

RANGE

Limits the physical scope of the command.

SYSPLEX

The command is executed on all affected systems of the sysplex.

TARGET

The command is only executed on the system that is specified in the

SETEVENT

TARGET parameter. If the TARGET parameter specifies a sysplex name, then the RANGE parameter has no effect.

APPLICATION

Specifies the name of a subsystem. It limits the logical scope of the command.

TARGET

For information about the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9. Note that if you specify a sysplex name as a target, then this is translated to the next system that is available in the sysplex and the SETEVENT command will be processed there.

Restrictions and Limitations

The SETEVENT command can only be used when SA OS/390 is initialized.

SETEVENT is a linemode only command.

Usage

The SETEVENT command operates sysplex-wide. For an overview refer to “Overview of Commands that Operate Sysplex-Wide” on page 9.

Examples

To set an event, type the following:

```
SETEVENT ID=EVTSTART,FUNCTION=SET
```

The command response is as follows:

```
AOF442I SET EVENT EVTSTART DONE FOR ALL AFFECTED APPLICATIONS ON AOC9  
AOF099I FUNCTION SUCCESSFULLY COMPLETED
```


SETHOLD

Purpose

SETHOLD lets you select which AOF messages are held on your operator ID. This command is used by the INGNTFY command but can be invoked separately.

Syntax

```
▶▶| SETHOLD |-----▶▶
```

SETHOLD

```
|SETHOLD| Parameters |-----|
```

Parameters

```
|
| CONFIG
| AUTO
| i a e d w
|-----|
```

Parameters

CONFIG

Specifying this option changes your hold settings to match the settings specified for your operator ID in the automation control file. If your operator ID is not defined as a notification operator, no messages will be held.

AUTO

Specifying this option changes your hold settings to match the settings INGNTFY has defined currently for your operator ID. If your operator ID is not a notification operator or if its definition as a notification operator has been deleted, no messages will be held.

i a e d w

Each character specifies the hold setting for the corresponding type of message. If a Y is specified, messages of that type will be held, if any other character is specified, messages of that type will not be held. A character must be specified for each type.

Restrictions and Limitations

- The SETHOLD command is only useful on an OST task. If issued on an NNT or RMT task, the message holding flags in the remote domain will be ignored, as the automation table on the OST task will override whatever message attributes may have been specified in the remote domain.
- SETHOLD does not update the INGNTFY globals, so if you use it with anything other than the AUTO parameter, the hold settings shown by INGNTFY QUERY may not reflect reality.

SETHOLD

Usage

SA OS/390 issues SETHOLD at SA OS/390 initialization, when you log on to NetView interface, and when INGNTFY is used.

When you log on, an entry in the sample automation table (in member AOFMSGMS) will invoke SETHOLD AUTO for your operator ID. When INGNTFY is used to change an operator's HOLD settings, SETHOLD AUTO will be issued on the appropriate OST task after the global information has been updated.

A more efficient usage would be to modify your initial CLISTs to issue SETHOLD with specific settings and to not have any hold settings specified in the automation control file or through INGNTFY. If you choose to do this, you will need to remove the automation table entry for the OST (in member AOFMSGMS) and set the AOFLOCALHOLD advanced automation option to 1. Doing this will stop INGNTFY from using EXCMD to issue SETHOLD AUTO, which can disrupt the hold settings specified from your profiles.

Note that the attributes for held messages are defined as automation table synonyms in the AOFMSGSY member.

It is recommended that you do not hold information messages as SA OS/390 can generate quite a few of them. If you do hold them, use the CLRHELD command to remove them. You may wish to modify the attributes for held information messages (held in the AOFMSGSY ACF member) so that held information messages will not actually be held.

Examples

To hold the messages that INGNTFY says you should have held, type SETHOLD AUTO. Messages will be held according to the task INGNTFY setting.

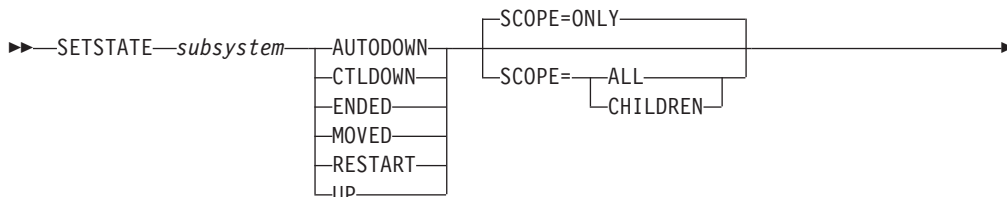
To hold all but information message, type SETHOLD N Y Y Y Y. All AOF messages, except informational ones, will be held.

SETSTATE

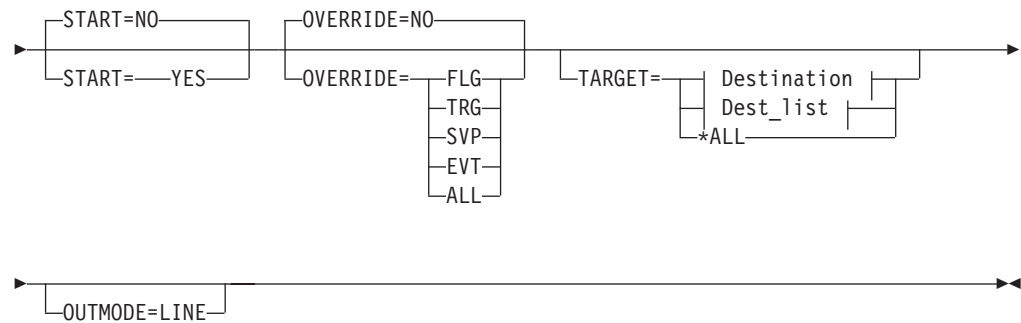
Purpose

SETSTATE changes the agent automation status of a given subsystem.

Syntax



SETSTATE



Destination:



Dest_list:



Parameters

subsystem

Specifies the subsystem whose status (or whose dependent resource's status) you want to change. You can also specify the subsystem's job name.

AUTODOWN

Changes the status from CTLDOWN, STOPPED, BROKEN, MOVED or FALLBACK to AUTODOWN. It is primarily used to return the resource to automation control after the operator has fixed the problem.

CTLDOWN

Changes the status to CTLDOWN so that the subsystem cannot be started by automation.

ENDED

Changes the status to ENDED

MOVED

The effect of this parameter depends on how the subsystem is defined.

- If the subsystem does not have any secondary system associations, the effect of the MOVED operand is the same as the effect of the CTLDOWN operand: the status of the subsystem is changed to CTLDOWN.
- If the subsystem does have secondary system associations:
 - If the command is issued on one of the subsystem's primary systems, the subsystem's status is changed to MOVED
 - If the command is issued on one of the subsystem's secondary systems, the subsystem's status is changed to FALLBACK.

SETSTATE

RESTART

Changes the status to RESTART so that the subsystem can be restarted. Specify this if your Initstart flag is set to No.

UP

Changes the status to UP/RUNNING if the subsystem's UPMSG has been missed. This can only be used when:

- SCOPE=ONLY
- The application monitor status of the subsystem is ACTIVE
- If the subsystem is enabled for automatic restart management, its automatic restart management status must be AVAILABLE or AVAILABLE-TO

Note: For transient subsystems, UP becomes RUNNING.

SCOPE

Specifies what is affected by this command:

ONLY Changes the status of this resource only. This is the default.

ALL Changes the status of this resource and its dependent resources.

CHILDREN

Changes the status of the dependent resources only.

OVERRIDE

Specifies the overrides to be considered for the request. It can be one of the following:

NO Specifies that no override will be done. This is the default.

FLG The appropriate automation flags will be ignored for the resource.

TRG The current trigger settings will be ignored.

SVP The service period will be ignored.

EVT The startup/shutdown conditions will be ignored.

ALL Sets the FLG, TRG, SVP, and EVT overrides on.

START

Specifies whether the resource is started with the INGREQ command after the status has been updated.

NO

No request is sent to the automation manager. The automation agent status is updated. This is the default.

YES

A default start request is sent to the automation manager.

TARGET

For information on the TARGET parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to "Additional Parameters for System Operations Commands" on page 9.

Restrictions and Limitations

The SETSTATE command will not execute under the primary POI task (PPT).

The SETSTATE command can only be used when SA OS/390 is initialized.

Usage

Use SETSTATE to:

SETSTATE

- Tell SA OS/390 to resume handling an application after a manual operator shutdown or after any other event that causes an application to go to a non-automatable status (for example STOPPED, CTLDOWN, BROKEN, ACTIVE)
- Prevent automation from restarting an application if you specify CTLDOWN
- Inform SA OS/390 that an application that has been shut down is going to be moved to another system.
- The SETSTATE command is translated into an INGREQ command with a priority of HIGH. Because INGREQ commands entered by the operator are persistent, it may be necessary to manually remove the associated vote before subsequent requests are activated.

Examples

If you type setstate TSO a panel similar to the following is displayed:

```
AOFKAST                SA OS/390 - Command Dialogs
Domain ID = IPSNO      ----- SETSTATE -----      Date = 07/19/00
Operator ID = NETOP1                                     Time = 18:53:29

Specify subsystem and new state:

Subsystem => TSO      Subsystem to be processed
System   =>          System name, domain ID, sysplex name or *ALL
State    => auttdown  Put subsystem in the following state:
                        (RESTART / AUTODOWN / CTLDOWN / UP / ENDED /
                        MOVED)

Scope    => ONLY     Change state for:
                        ONLY   - only this subsystem
                        CHILDREN - only dependant subsystems
                        ALL    - resource and dependants

Start    => NO       Start or restart subsystem now (YES/NO)
Override => NO       Override(Start=YES) (NO/FLG/TRG/SVP/EVT/ALL)

Command ==>
PF1=Help   PF2=End   PF3=Return   PF6=Ro11
```

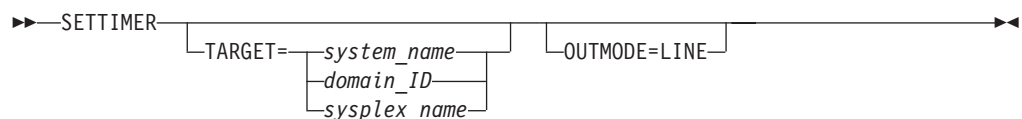
Figure 86. SETSTATE Command Dialog Panel

SETTIMER

Purpose

SETTIMER displays all scheduled timers. You can also add, change, or delete timers.

Syntax



SETTIMER

Parameters

TARGET

For information on the TARGET parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

OUTMODE

For information on the OUTMODE parameter, refer to “Additional Parameters for System Operations Commands” on page 9.

Restrictions and Limitations

The SETTIMER command can only be used when SA OS/390 is initialized.

Usage

For instructions on how to add, change, or delete timers, refer to *System Automation for OS/390 User's Guide*.

Examples

When you type settimer you see a panel similar to the following:

```
AOFKATI                SA OS/390 - Command Dialogs                Line 1 of 16
Domain ID = IPSNO      ----- SETTIMER -----                Date = 02/17/00
Operator ID = NETOP1   System = KEY3                            Time = 16:06:40
Enter ADD on the COMMAND line to create a new timer entry
or use CMD selections A add, C change, or D delete to modify existing timers.
CMD TIMER-ID  SCHEDULED TIME  TYPE  TASK  SAVE  CTUP  INTERVAL
-----
AOFGATE      02/17/00 16:16:04  EVERY  PPT   NO   NO   00:15:00
Command:     AOFRASC D GATOPER AOFRIIGT
AOFMON       02/17/00 16:16:04  EVERY  PPT   NO   NO   00:30:00
Command:     AOFRASC D MONOPER MONITOR $SYSTEM
AOFCCON      02/17/00 16:52:04  EVERY  PPT   NO   NO   00:59:00
Command:     AOFRASC D SYSOPER MVS D C
AOFI0001     02/17/00 18:00:00  AT     PPT   NO   NO
Command:     AOFRASC D MONOPER AOFRASAF AOF?0007 MVSESA,OPTION=RESET
WRITELOG     02/17/00 23:59:00  EVERY  AUTREC NO   NO   DAILY
Command:     MVS W
SYS000001    02/18/00 00:01:00  CHRON  PPT   NO   NO   001 00:00:00
Command:     CHRON AT=00.01.00 EVERY=( ) RECOVERY=AUTOLGN COMMAND='PURGE

Command ==>
PF1=Help      PF2=End      PF3=Return   PF6=Ro11
               PF8=Forward  PF9=Refresh  PF12=Retrieve
```

Figure 87. Display of Scheduled Timers (SETTIMER)

- The CMD field allows you to specify whether you want to add, change, or delete a timer. Valid values are:
 - A** Add a new timer with the same values as the one selected
 - C** Change an existing timer
 - D** Delete a timer
- The Timer-ID field shows the name assigned to the timer.
- The Scheduled time field shows the next scheduled day and time that this timer is set to expire.
- The Type field shows the type of timer. There are three types:
 - At** Set to occur at the specified date and time. Occurs only once.

- Every** Set to occur at the time intervals indicated in the Interval field, or at a specific time each day or week.
- After** Set to occur only after the elapsed time that was specified when the timer was scheduled. For example, if at 12:00, you specify 2 hours, the timer will expire at 14:00.
- The Task field shows the operator under which the timer runs. This could be a primary programmed operator interface task (PPT), an automation operator, or a human operator.
 - The Save field specifies whether or not the timer is to be saved to an external file. This allows the timer to be restored after a NetView outage. This applies to timers created using either the customization dialog or the operator interface. Valid values are Yes, No, GMT, or local. The default is Yes.
 - The CTUP field specifies whether or not to activate the timer if it occurs at a time when NetView is down. Valid values are Yes or No. If CTUP is set to Yes, the command specified in the timer definition is issued when NetView is restarted, if the timer expired while NetView was down.
The field can only be set to Yes if:
 - This is an At type timer (it occurs once at a specific time and date).
 - The timer was created using the customization dialog.
 - The Save field is set to Yes
 - The Interval field is only valid for Every type timers. It indicates the time intervals at which the timer is set to occur. For example, a value of 00:30:00 means that the timer will issue the command specified every 30 minutes.
 - The Command field specifies the command to be issued when this timer expires.

SHOWME

Purpose

SHOWME issues a command and then displays the response on a full-screen panel that can be paged through.

Syntax

```

  >>—SHOWME—┌──────────┴──────────>>
                └──command──┘
  
```

Parameters

command

The command for which you want to see the response. If you do not specify a command, you will be prompted for one when the Command Response Display panel is displayed.

Restrictions and Limitations

None.

Usage

You can display the response to commands on a new panel, or append the response to previous responses by placing a + before the command.

SHOWME

Pressing PF9 reissues the command currently displayed.

To page through the responses, use PF8 to take you to the next page, and PF7 to take you to the previous page. By overtyping the current page number and pressing enter, you can move to a specific page.

Examples

The commands shown in the examples are entered on the command line of the Command Response Display panel.

Example 1: MVS D A,ALL (then pressing Enter) displays the response to the command MVS D A, ALL and clears the panel of any responses currently displayed.

Example 2: +MVS D A,ALL (then pressing Enter) displays the response to the command MVS D A,ALL and appends it to the responses currently displayed.

Example 3: Pressing PF9 reissues the current command and displays the response. Any currently displayed commands are cleared from the panel.

Example 4: +MVS D A,ALL (then pressing PF9) reissues the command MVS D A,ALL and appends the response to the currently displayed responses.

@DS (MVS DEVSERV)

Purpose

The @DS command issues the MVS system command DEVSERV so that you receive a full-screen response you can page through and request help for. This is in contrast to issuing the MVS DEVSERV command on the SA OS/390 command line and watching the response roll off the screen.

The DEVSERV command displays the status of DASD and tape devices. The command displays information such as: the logical mode, the volume serial label and the number of data sets allocated, the channel path ID, and the status of the path. The command produces a one-time display of status at the time you enter the command.

Syntax



Note: The MVS primary operand is automatically generated by the @DS command and should not be specified by the user. Look at the examples for more detail.

Parameters

mvs-suboperand

Specifies one or more suboperands. Place a comma between suboperands.

Restrictions and Limitations

None.

Usage

- Specify the operands using any valid MVS DEVSERV command syntax. See the *MVS/ESA System Commands* manual for command and syntax definitions.
- The primary operand and several of the suboperands are:

{PATHS } {P }

The primary operand: the system is to display the status of specified devices.

{ddd }

The device number, in hexadecimal, for which the system is to display the information.

{nn }

The number of devices for which the system is to display the information, in ascending order beginning with the device you specify. If you do not code nn, the system displays information about the one device you specify; or if that device does not exist, the system displays the next device.

{ONLINE } {OFFLINE }

The system is to display information about only those devices that are either ONLINE or OFFLINE. If you do not specify ONLINE or OFFLINE, the system displays information about both online and offline devices.

Examples

If you type @ds,300 you see a full-screen display similar to the following:

```

AOFR3GEN                SA OS/390 - Command Response Display      Page 1   of 1
Command:  MVS DS P,,300
MVS DS P,,300
IEE459I 11.56.12 DEVSERV PATHS 120
UNIT DTYPE M CNT VOLSER  CHPid=PATH STATUS
-----
300,3380 ,A,090,RACF01,03=+
***** SYMBOL DEFINITIONS *****
A = ALLOCATED                + = PATH AVAILABLE

Action ==>
PF1=Help  PF2=End           PF3=Return
PF6=Roll                                     PF9=Refresh  PF12=Retrieve

```

Figure 88. @DS,300 Display

In this example, the DEVSERV primary operand, P, was generated automatically.

This panel can also be displayed using the SHOWME command. See “SHOWME” on page 195 for more information.

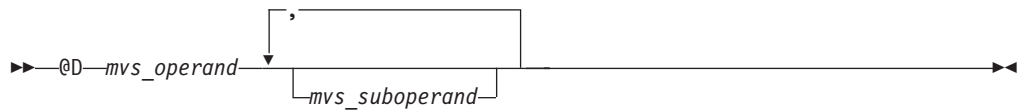
@D (MVS DISPLAY)

Purpose

The @D command issues the MVS system command DISPLAY so that you receive a full-screen response you can page through. This is in contrast to issuing the MVS DISPLAY command on the SA OS/390 command line and watching the response roll off the screen.

The MVS DISPLAY command displays information about the operating system, the jobs and application programs that are running, the processor, devices that are online and offline, real and extended storage, and the time of day. The command produces a one-time display of status at the time you enter the command.

Syntax



Parameters

mvs-operand

Specifies the MVS DISPLAY command primary operand.

mvs-suboperand

Specifies one or more suboperands that are specific to the primary operand. Place a comma between suboperands.

Restrictions and Limitations

None.

Usage

- Specify operands using any valid MVS DISPLAY command syntax. See *MVS/ESA System Commands* for command and syntax definitions.
- Some of the primary operands are:
 - ASM** Information about the page and swap data sets currently in use by the system.
 - M** System configuration information.
 - DMN** Domain information.

Several other primary operands are shown in the examples.

- Use the @D command with the following formats to issue selected MVS DISPLAY commands without concern for command and syntax conventions:

@D ALC [xxx [nnn]]

issues MVS D U, ,ALLOC, .xxx, nnn. The system displays allocation information for any specified devices. The default for nnn is one device.

@D DASD [xxx[nnn]]

issues MVS D U,DASD,xxx,,nnn. The system displays DASD unit status information. The first parameter (xxx) can be specified as either ONLINE or OFFLINE; the default is ONLINE. The default for nnn is 40 devices.

@D MPF

issues MVS D MPF. The system displays information about message processing and presentation such as: which messages are being suppressed by MPF, which action messages are not being retained by the action message retention facility, and which user exits receive control for selected messages.

Examples

If you type @d u,dasd,onl ine,,40 you see a full-screen display similar to the following:

```

AOFK3GEN          SA OS/390 - Command Response Display   Page 1   of 3
Command:  MVS D U,DASD,ONLINE,,40
                MVS D U,DASD,ONLINE,,40
IEE457I 18.04.28 UNIT STATUS 048
UNIT TYPE STATUS      VOLSER      VOLSTATE
0200 3390 A           MVSLIB      PRIV/RSDNT
020A 3390 0           610D04      PRIV/RSDNT
020B 3390 0           422974      PRIV/RSDNT
020E 3390 A           MVSTGT      PRIV/RSDNT
0210 3390 0           RESMVS      PRIV/RSDNT
0212 3390 0           420974      PRIV/RSDNT
0215 3390 0           522RES      PRIV/RSDNT
0217 3390 0           HSMB00      PRIV/RSDNT
0219 3390 0           MVSDLB      PRIV/RSDNT
021C 3390 A           MVSTG3      PRIV/RSDNT
021E 3390 0           MVSDL2      PRIV/RSDNT
0222 3390 0           MVSDOC      PRIV/RSDNT
0227 3390 0           HSMB01      PRIV/RSDNT
0230 3390 0           MVSLB2      PRIV/RSDNT
0238 3390 0           HSMM01      PRIV/RSDNT

Action ==>
          PF1= Help   PF2=End       PF3=Return
          PF6= Roll   PF8=Forward   PF9=Refresh   PF12=Retrieve
    
```

Figure 89. @D U,DASD,ONLINE,,40 Display

In this example, the system only displays information about those devices of the specified device type (DASD) that are online. The request was for unit status information for 40 devices.

If the selected MVS DISPLAY command @d dasd had been issued, the resulting display would be the same.

If you type @d a,all you see a full-screen display similar to the following:

@D

```
AOFK3GEN          SA OS/390 - Command Response Display   Page 1   of 27
Command:  MVS D A,ALL
                                MVS D A,ALL
IEE115I 18.06.00 1997.314 ACTIVITY 050
JOBS    M/S    TS USERS  SYSAS  INITS  ACTIVE/MAX VTAM  OAS
00000  00020  00000  00024  00024  00000/00020  00000
*MASTER* *MASTER*      NSW *
                                A=0001 PER=NO SMC=000
                                PGN=N/A DMN=N/A AFF=NONE
                                CT=00.31.06 ET=00106.58
                                WUID=STC09517 USERID=+MASTER+
                                WKL=SYSTEM SCL=SYSTEM P=1
                                RGP=N/A SRVR=NO QSC=NO
PCAUTH  PCAUTH          NSW *
                                A=0002 PER=NO SMC=000
                                PGN=N/A DMN=N/A AFF=NONE
                                CT=000.110S ET=00106.58
                                WKL=SYSTEM SCL=SYSSTC P=1
                                RGP=N/A SRVR=NO QSC=NO
RASP    RASP           NSW *
                                A=0003 PER=NO SMC=000
                                PGN=N/A DMN=N/A AFF=NONE
                                CT=000.041S ET=00106.58

Action ==>
          PF1= Help  PF2=End      PF3=Return
          PF6= Roll  PF8=Forward  PF9=Refresh  PF12=Retrieve
```

Figure 90. @D A,ALL Display

As a result of the primary operand (A) in this example, the system displays overview information about system activity such as: the number of active batch jobs, the number of started tasks, the number of logged-on time-sharing users, and the number of active system address spaces. The ALL operand provides detailed information about all active units of work. You can scroll the six pages of information.

These panels can also be displayed using the SHOWME command. See “SHOWME” on page 195 for more information.

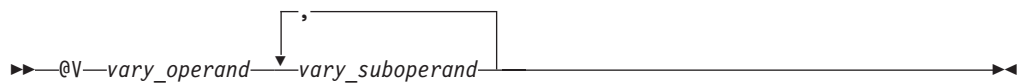
@V (MVS VARY)

Purpose

The @V command issues the MVS system command VARY so that you get a full-screen response you can page through and get help on.

The MVS VARY command places a secondary device online or offline. The command provides a one-time display of status at the time you enter the command.

Syntax



Parameters

vary-operand

Specifies the MVS VARY command primary operand. Place a comma between suboperands.

vary-suboperand

Specifies one or more VARY suboperands. Place a comma between suboperands.

Usage

- Specify the operands using any valid MVS VARY command syntax. See the *MVS/ESA System Commands* manual for command and syntax definitions.
- Some of the primary operands are:

devnum

The device numbers of the console or consoles to move online or offline.

O-unit

The device number of an output device.

Several other primary operands are discussed in *MVS/ESA System Commands*.

Examples

If you type @V 01C0,CONSOLE, you see a panel similar to the following:

```

AOFK3GEN          SA OS/390 - Command Response Display   Page 1   of 1
Command:  MVS V 01C0,CONSOLE
                MVS V 01C0,CONSOLE
IEE889I 11.04.57  CONSOLE DISPLAY 363
MSG: CURR=1  LIM=1500  RPLY:CURR=1  LIM=10  SYS=AOC9  PFK=09
CONSOLE/ALT  ID  ----- SPECIFICATIONS -----
MASTER/MASTER1  01  COND=M      AUTH=MASTER      NBUF=0  UD=Y
01C0             AREA=Z      MFORM=T,J
AOC9             DEL=R      RTME=1      RNUM=19  SEG=25  CON=N
                USE=FC  LEVEL=ALL      PFKTAB=PFKTAB09
                ROUTCDE=ALL
                MONITOR=JOBNAMES

Action ==>>
          PF1= Help  PF2=End      PF3=Return
          PF6= Roll  PF9=Refresh  PF12=Retrieve
    
```

Figure 91. @V 01C0,CONSOLE Display

This panel can also be displayed using the SHOWME command. See “SHOWME” on page 195 for more information.

@V

Part 3. SA OS/390 I/O Operations Commands

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This part describes SA OS/390 I/O operations commands in detail—their purpose, their format, and specifics of how to use them.

For general information about the SA OS/390 commands, refer to *System Automation for OS/390 User's Guide*.

I/O Operations Commands

Using I/O Operations Commands

You can issue I/O operations commands by entering the command through:

- ISPF dialogs
- The operator console

Not all commands can be issued in both ways. For detailed information about where the commands can be used and about the authorization levels they require, refer to “Appendix B. General Considerations for I/O Operations Commands” on page 425.

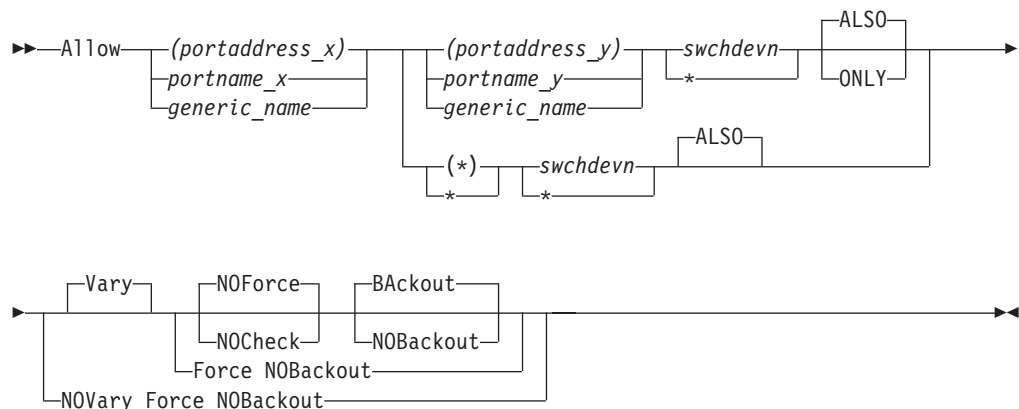
ALLOW

Purpose

Use the ALLOW command to define a dynamic connection between ports on one switch or on all the switches allocated to the issuing I/O operations.

You can allow the dynamic connections that are shown in the following syntax diagram. With the ALLOW command, you can, for example, define partitions within a system to facilitate maintenance. For information on the reciprocal command, refer to “PROHIBIT” on page 231.

Syntax



Parameters

(portaddress_x) | portname_x | generic_name

Specifies the target port by its port address (enclosed in parentheses), by its individual port name, or by a generic port name. For a discussion, see “Port Switching Commands” on page 420.

(portaddress_y) | portname_y | generic_name | (*) | *

Specifies one of the following: the port address of a second port (enclosed in parentheses), the port name of a second port, a generic port name, all other

ALLOW

port addresses (* enclosed in parentheses), or all other port names (* not enclosed in parentheses). For a discussion, see “Port Switching Commands” on page 420.

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) that are allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

Options

ALSO | ONLY

ALSO (default) specifies that the ports affected by the command will connect dynamically to each other, regardless of whether they connect dynamically to other ports on the same switch.

ONLY specifies that the ports affected by the command will connect dynamically to each other, but each port is disallowed a dynamic connection to any other port on the switch.

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BAckout | NOBAckout see “Making Connectivity Changes” on page 414.

Usage

- If you specify an individual or generic port name, all the switches involved must have at least 1 port implemented with an applicable port name.
- If you specify the same port in both operands and do not specify a generic name, the command will fail because I/O operations will not allow that port to have a dynamic connection with itself.
- If you specify 1 or 2 generic names and at least 1 port in each operand is unique and valid, the command will succeed. I/O operations will allow the valid dynamic connections and disallow a port to connect to itself.
- Although you cannot use the ONLY option and specify either all port addresses (*) or all port names *, you can specify a generic port name. Assume, for example, that all the ports on switch 100 are named and the names start with F: FC1, FC2, FC3, and so on. Although you cannot specify A * * 100, you can specify A F* F* 100.
- When you specify the ONLY option, all paths to the specified ports are varied offline. The dynamic path between the two ports is varied online.
- If a parallel channel and CV converter are involved, you should consider the information provided in “A Parallel Channel in Block (BL) Mode” on page 420.

Examples

In the following example, port *FB* is allowed to have a dynamic connection only with port *D6* on switch 100. The dynamic connections that port *FB* had with other ports are now prohibited.

```
A (FB) (D6) 100 ONLY
IHVC0001 ALLOW      command successful
```

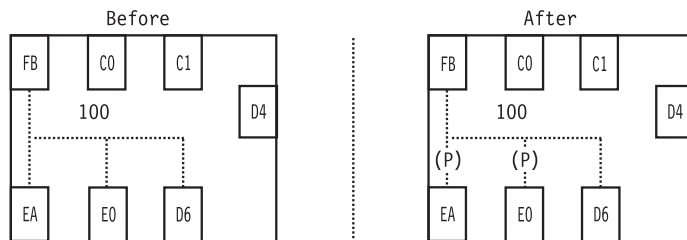


Figure 92. ALLOW Command - Sample 1

In the following example of using a generic port name, all the ports whose port names start with the characters *HB.CHP_39* are allowed to have dynamic connections with ports that begin with *CU.* on switch 200.

```
ALLOW HB.CHP_39 CU.* 200
IHVC0001 ALLOW      command successful
```

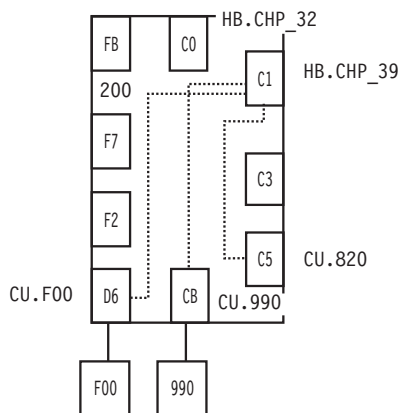


Figure 93. ALLOW Command - Sample 2

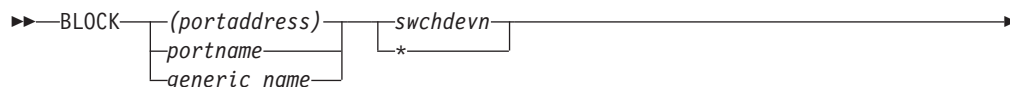
BLOCK

Purpose

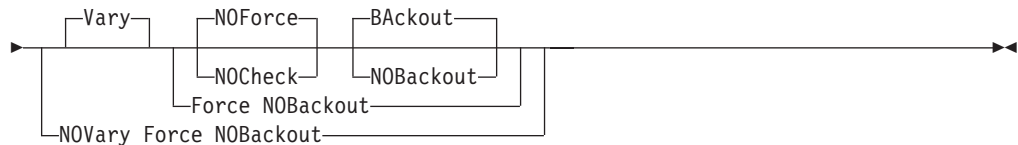
Use the BLOCK command to prevent data transfer through the specified port on one or on all the switches allocated to the issuing I/O operations.

See “UNBLOCK” on page 245 for information on the reciprocal command.

Syntax



BLOCK



Parameters

(portaddress) | portname | generic_name

Specifies the ports to be blocked by an individual port address, by an individual port name, or by a generic port name. For a discussion, see “Port Switching Commands” on page 420.

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BAckout | NOBackout see “Making Connectivity Changes” on page 414.

Usage

- If a CVC CHPID is involved, “An ESCON-in-Converted-Mode (CVC) Path” on page 417 provides more information.
- If a parallel CHPID is involved, “A Parallel Channel in Block (BL) Mode” on page 420 provides more information.

Examples

```
B (D6) 100
IHVC000I BLOCK      command successful
```

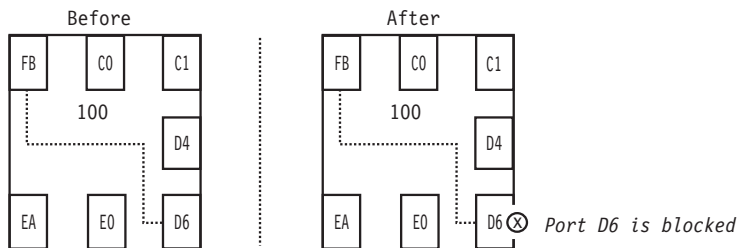


Figure 94. BLOCK Command - Sample 1

In the following example of using a generic port name, all ports whose port names start with the characters CU.F* are blocked on all the switches allocated to the issuing I/O operations.

```
B CU.F* *
IHVC000I BLOCK      command successful
```

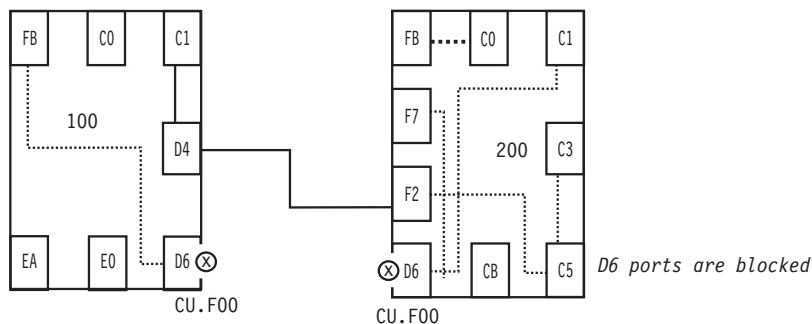


Figure 95. BLOCK Command - Sample 2

CHAIN

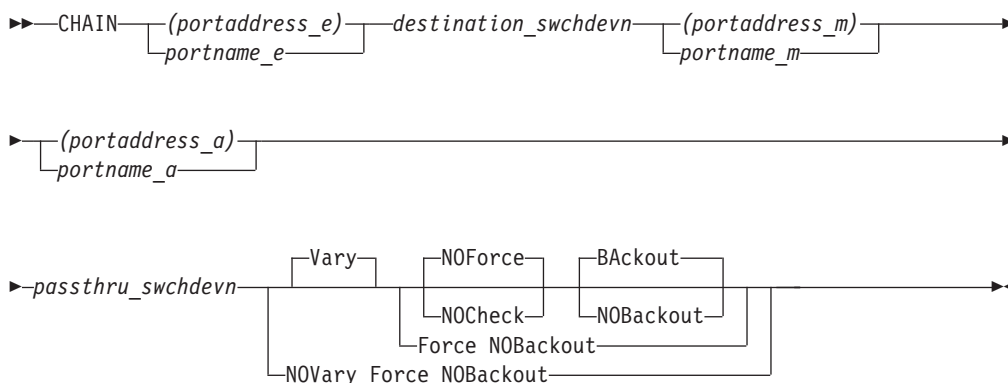
Purpose

Use the CHAIN command to define a chain in a chained path that traverses two switches that are physically linked to each other.

One switch acts as a fiber repeater and is called the passthru switch. Two ports in the chain are statically connected to each other in the passthru switch. The other switch is called the destination switch because the chain “ends” in that switch.

For more information, see “Chain and Unchain a Switchable Path” on page 408. See “UNCHAIN” on page 246 for the reciprocal command.

Syntax



Parameters

(portaddress_e) | portname_e

Specifies the port ending the chain on the destination switch by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

destination_swchdevn

Specifies the device number of the destination switch, which is the switch that ends the chain. For a discussion, see “Switch Identifiers” on page 407.

CHAIN

(portaddress_m) | portname_m

Specifies middle port by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

(portaddress_a) | portname_a

Specifies the port to which the CHPID or control unit is physically attached to the beginning of the chained path by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

passthru_swchdevn

Specifies the device number of the passthru switch, which is the switch that has the static connection between ports *a* and *m*. For a discussion, see “Switch Identifiers” on page 407.

Options

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BAckout | NOBackout see “Making Connectivity Changes” on page 414.

Usage

- Additional steps may be required. See “Chain and Unchain a Switchable Path” on page 408.
- If you need to define a chain, consider entering the Chain command when I/O operations is started so that the program can take the definition into account for all vary path processing.
- Chaining can add complexity to I/O operations’ vary path processing. See “Chain and Unchain a Switchable Path” on page 408 for more information.

Examples

```
CHAIN (F2) 200 (D4) (C1) 100  
IHVC000I CHAIN      command successful
```

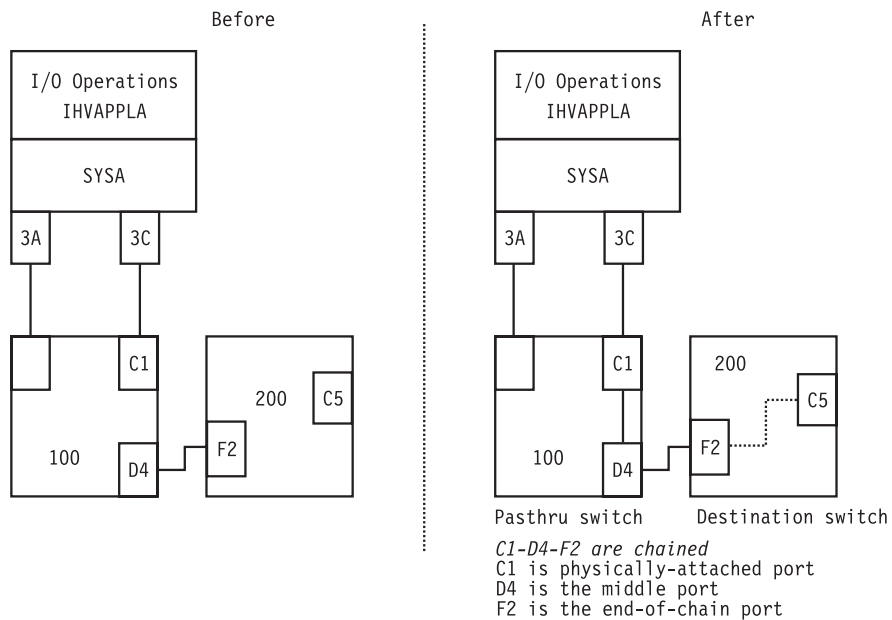


Figure 96. CHAIN Command - Sample 1

```
CHAIN (E0) 100 (D6) (CB) 200
IHVC000I CHAIN          command successful
```

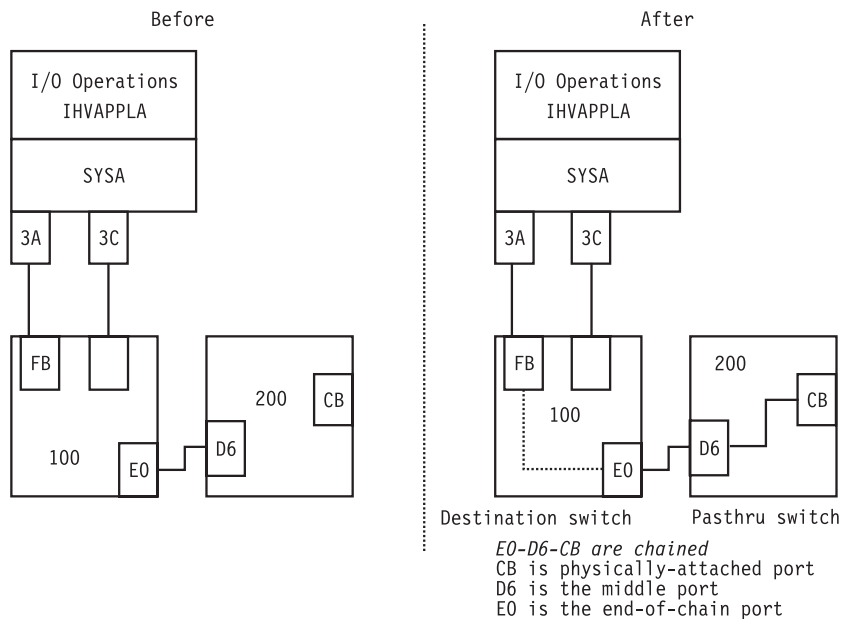


Figure 97. CHAIN Command - Sample 2

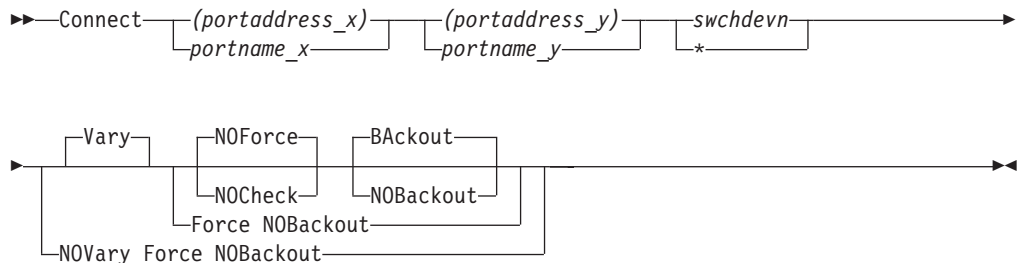
CONNECT

Purpose

Use the CONNECT command to establish a static, or dedicated, connection between two ports on the same switch or those same two ports on all switches allocated to the issuing I/O operations.

See “DISCONNECT” on page 213 for the reciprocal command.

Syntax



Parameters

(portaddress_x) | portname_x

Specifies one target port on the switch by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

(portaddress_y) | portname_y

Specifies the other target port by its port address or by its port name. For a discussion, see “Port Switching Commands” on page 420.

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

Options

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BBackout | NOBackout see “Making Connectivity Changes” on page 414.

Usage

The two ports on the passthru switch of a chain are implicitly connected by the Chain command. Under some circumstances, however, you will need to enter the Connect command in addition to the Chain command. See “Chain and Unchain a Switchable Path” on page 408 for more information.

Examples

In the following example, ports *C0* and *D6* become statically connected. In the hierarchy of port attributes, a static connection overrides a dynamic connection. Therefore, port *EA* cannot communicate with port *C0* as long as the latter remains statically connected.

See “Port Switching Commands” on page 420 for more information.

```
C (FB) (D6) 100
IHVC000I CONNECT    command successful
```

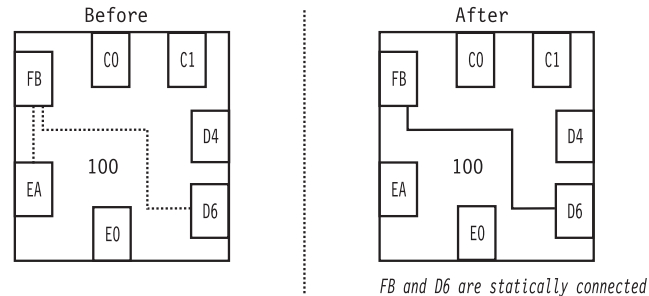


Figure 98. CONNECT Command - Sample

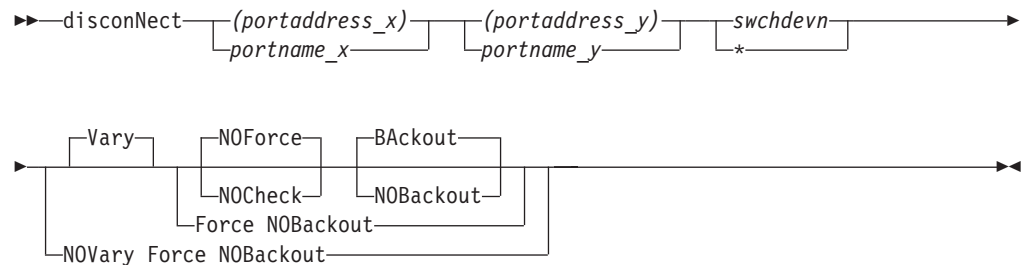
DISCONNECT

Purpose

Use the DISCONNECT command to cancel the definition of a static, or dedicated, connection between two ports on the same switch or those same two ports on all switches allocated to the issuing I/O operations.

See “CONNECT” on page 212 for the reciprocal command.

Syntax



Parameters

(portaddress_x) | portname_x

Specifies one target port on the switch by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

(portaddress_y) | portname_y

Specifies the other target port by its port address or by its port name.

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

DISCONNECT

Options

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BAckout | NOBackout see “Making Connectivity Changes” on page 414.

Usage

If a CVC CHPID is involved, “An ESCON-in-Converted-Mode (CVC) Path” on page 417 provides more information.

Examples

```
N (FB) (D6) 100
IHVC000I DISCONNECT command successful
```

DISPLAY CHP

Purpose

Use the DISPLAY CHP command to display data about one or about all the channel path identifiers (CHPIDs) online to the operating system (host) image on which the issuing I/O operations is running.

Syntax

```
→—DISPLAY CHP—chpid—→
                *
```

Parameters

chpid

Specifies a single channel path identifier (CHPID)

* All CHPIDs known to the issuing I/O operations

Usage

For more information on the data displayed, see the page references under the fields:

```
IHVC824I
IHVC825I   CHP   SWCH          PORT
IHVC826I   CHP TYPE  DEVN LSN PORT H B C P PORT NAME
A      B C  D E F  G      H
```

- A** Message
- B** Channel path ID (see “Channel Types” on page 412)
- C** Channel type (see “Channel Types” on page 412)
- D** Switch device number (see “Switch Identifiers” on page 407)
- E** Logical switch number (see “Logical Switch Number (LSN)” on page 408)
- F** Port address (see “Port Addresses” on page 422)
- G** Port status codes (see “Switch Port Hardware Status on a Display Command” on page 418)
- H** Port name (see “Using Port Names as a Tool in Switching Commands” on page 417)

Examples

```

D C 3C
IHVC815I
IHVC816I          CHP      SWCH          PORT
                  TYPE      DEVN LSN PORT H B C P  PORT NAME
IHVC817I 3C      CNC_S    0200 02  F2  C   C   P   HA.CHP_3C
IHVC818I CHAINED TO: 0100 01  D4  C   C1  LINK.200
IHVC82E1 D4 CONNECTED TO:      C1  C   D4  HA.CHP_3C
    
```

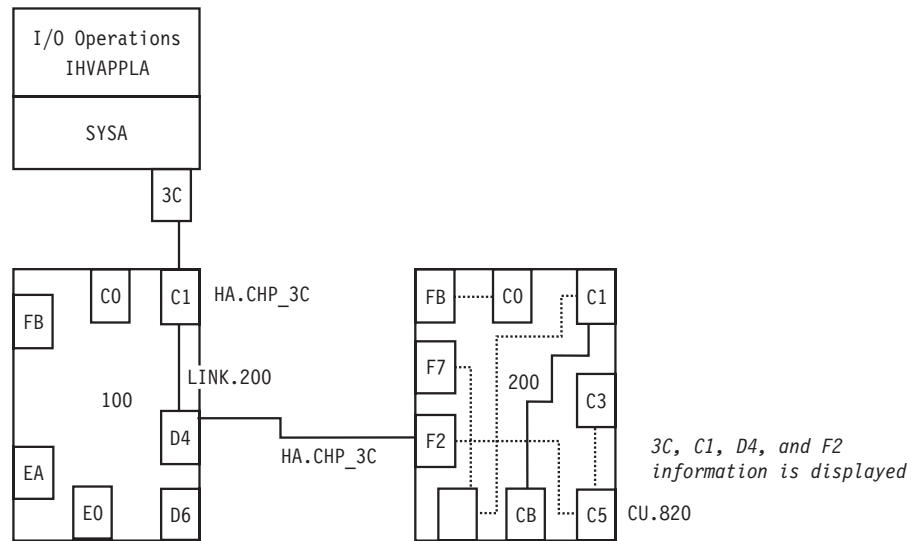


Figure 99. DISPLAY CHP Command - Sample 1

```

D C 3A
IHVC815I
IHVC816I          CHP      SWCH          PORT
                  TYPE      DEVN LSN PORT H B C P  PORT NAME
IHVC817I 3A      CNC_S    0100 01  FB   C   P   HA.CHP_3A
    
```

DISPLAY DEVICE

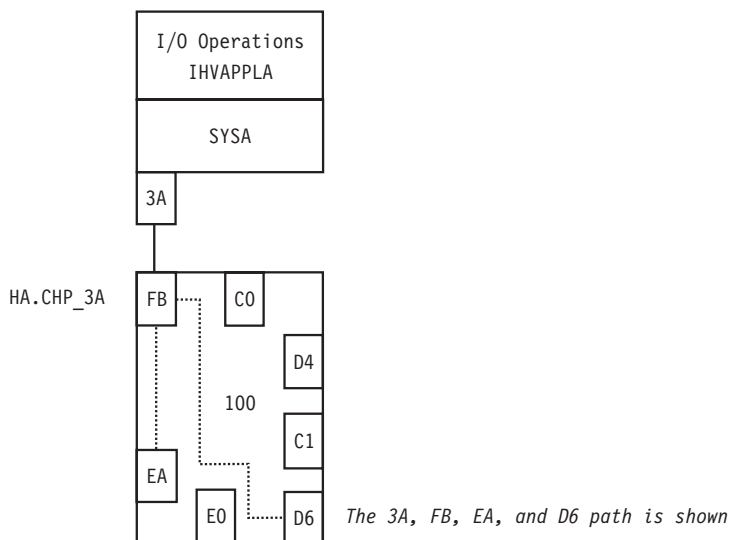


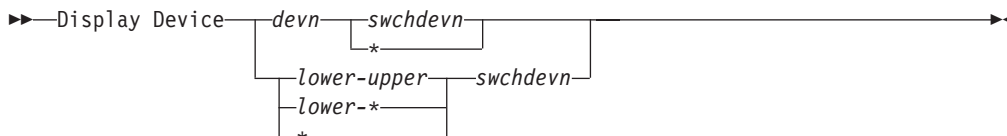
Figure 100. DISPLAY CHP Command - Sample 2

DISPLAY DEVICE

Purpose

Use the DISPLAY DEVICE command to display data about one, a range, or all the devices connected to one or all the switches that are allocated to the issuing I/O operations.

Syntax



Parameters

devn

A specific device number

lower-upper

The range of device numbers from the *lower* limit, followed by a hyphen - and the *upper* limit

lower-*

The range of device numbers from the *lower* limit, followed by a hyphen - and an asterisk (* not enclosed in parentheses) to indicate the highest number.

* All the device numbers (* not enclosed in parentheses)

swchdevn

Specifies one switch allocated to the issuing I/O operations

* All switches allocated to the issuing I/O operations. For a discussion, see "Switch Identifiers" on page 407.

Usage

For more information on the displayed output, see the page references under the fields.

```

IHVC824I
IHVC825I          CHP  SWCH          PORT
IHVC826I DEVN CHP TYPE  DEVN LSN PORT H B C P PORT NAME
A           B C   D E F   G           H
    
```

- A** Message
- B** Channel path ID (see “Channel Types” on page 412)
- C** Channel type (see “Channel Types” on page 412)
- D** Switch device number (see “Switch Identifiers” on page 407)
- E** Logical switch number (see “Logical Switch Number (LSN)” on page 408)
- F** Port address (see “Port Addresses” on page 422)
- G** Port status codes (see “Switch Port Hardware Status on a Display Command” on page 418)
- H** Port name (see “Using Port Names as a Tool in Switching Commands” on page 417)

Examples

```

D D F01 *
IHVC824I
IHVC825I          CHP  SWCH          PORT
IHVC826I DEVN CHP TYPE  DEVN LSN PORT H B C P PORT NAME
IHVC827I 0F01 3A  CNC_S 0100 01  FB          HA.CHP_3A
IHVC82AI CNTL UNIT DATA:0100 01  D6          CU.F00
IHVC827I      3D  CNC_S 0200 02  F7          HA.CHP_3D
IHVC82AI CNTL UNIT DATA:0200 02  D6          CU.F00
    
```

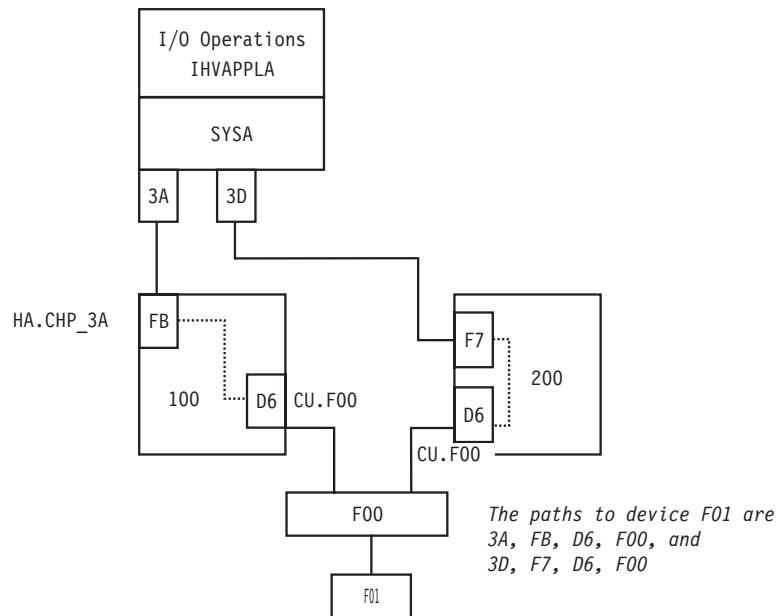


Figure 101. DISPLAY DEVICE Command - Sample

DISPLAY HOST

Purpose

Use the DISPLAY HOST command to display status about the specified I/O operations(host).

See “DISPLAY RESULTS” on page 223 for the related command, and “Processing a Vary Path Request” on page 422 for more information.

Syntax



Parameters

vtamname | *

Specifies one or all I/O operations hosts known to the issuing I/O operations.

vtamname

Specifies an I/O operations by its VTAM application name (VTAM ID). If the issuing I/O operations has no valid VTAM application name, the VTAM name is not available, or VTAM is not available, you can specify THIS-SYS for the issuing I/O operations

*** (asterisk)**

Specifies all the I/O operations known to the issuing I/O operations.

For a discussion, see “Switching Commands” on page 421.

swchdevn

Specifies one switch allocated to the issuing I/O operations. If you do not specify a switch device number, the issuing I/O operations displays status about all its participating hosts. For a discussion, see “Switch Identifiers” on page 407.

Usage

- See the following example for the type of data displayed.
- If the DISPLAY RESULTS, LOGREC, SYNC SWITCH, or WRITE command is entered, the data that could be displayed by DISPLAY HOST is refreshed.
- For more information on the displayed output, see the page reference under the fields:

```
IHVC803I THIS HOST:  vtamname
IHVC804I VTAMNAME LEVEL  PHYSICAL IDENTIFIER      SYSPLEX  SYSTEM
A          B
```

A
B

Message
VTAM name (see “VTAM Application Name” on page 423)

```

IHVC805I THE FOLLOWING SWCHS ARE ATTACHED:
IHVC806I SWCH
IHVC807I DEVN LSN UNIQUE ID
A B C D
    
```

- A** Message
- B** Switch device number (see "Switch Identifiers" on page 407)
- C** Logical switch number (see "Logical Switch Number (LSN)" on page 408)
- D** Switch ID number (see "Switch Unique Identifier" on page 422)

Examples

```

D H IHVAPPLA
IHVC803I THIS HOST: IHVAPPLA SYSPLEX: SYSPLEX1 SYSTEM: SYSTEM12
IHVC804I VTAMNAME LEVEL PHYSICAL IDENTIFIER SYSPLEX SYSTEM
IHVC80CI IHVAPPLA V1 R3 00309020JIBM00000000070054 SYSPLEX1 SYSTEM12
IHVC537I VTAM communication is initialized on this host
IHVC805I THE FOLLOWING SWCHS ARE ATTACHED:
IHVC806I SWCH
IHVC807I DEVN LSN UNIQUE ID
IHVC80AI 0100 01 009032002IBM01000000034893
IHVC80AI 0200 02 009032002IBM02000000093622
    
```

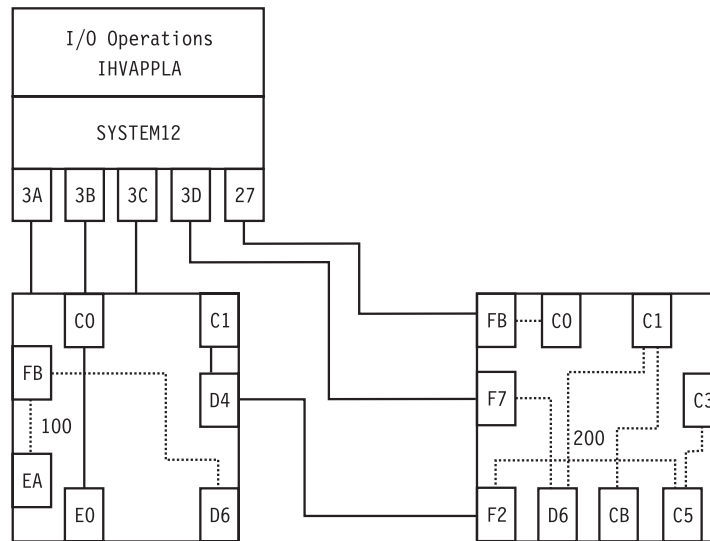


Figure 102. DISPLAY HOST Command - Sample 1

```

D H *
IHVC803I THIS HOST: IHVAPPLA SYSPLEX: SYSPLEX1 SYSTEM: SYSTEM12
IHVC804I VTAMNAME LEVEL PHYSICAL IDENTIFIER SYSPLEX SYSTEM
IHVC80CI IHVAPPLA V1 R3 00309020JIBM00000000070054 SYSPLEX1 SYSTEM12
IHVC537I VTAM communication is initialized on this host
IHVC80CI IHVAPPLB V1 R3 003090000IBM01000138586566 SYSPLEX1 SYSTEM13
IHVC535I VTAM session established with this host
IHVC884I Sysplex systems not associated with a VTAM name detected:
IHVC885I SYSPLEX SYSTEMS-----|
IHVC886I SYSPLEX1 SYSTEM14, , , ,
    
```

DISPLAY NAME

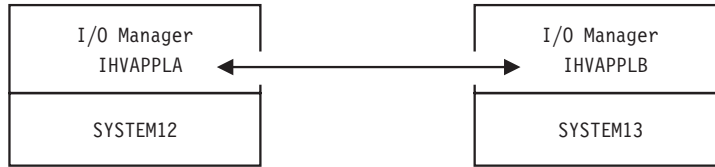


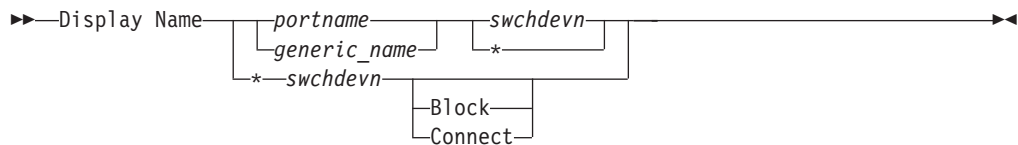
Figure 103. DISPLAY HOST Command - Sample 2

DISPLAY NAME

Purpose

Use the DISPLAY NAME command to display data about the implemented ports on a switch to which port names have been assigned. (See “WRITE” on page 249 for the command used to assign port names.)

Syntax



Parameters

portname | generic_name | *

Specifies that data be displayed about a specifically named port, all ports with the specified generic logical port name, or all named addressable ports (* not enclosed in parentheses). If you specify * in this operand, you cannot specify * in the next operand, but you can specify Block or Connect as options. For a discussion, see “Port Switching Commands” on page 420.

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations. If you specify *, you must specify either an individual or a generic port name, but not all port names. For a discussion, see “Switch Identifiers” on page 407.

Options

Block | Connect

Specifies that data be displayed only about those named ports that are blocked or statically connected to another port. If you specify this option, you must also specify * for all port names.

Usage

For more information on the displayed output, see the page references under the fields.

I/O Manager		SWCH		PORT		STATUS		I/O	
IHVC844I		DEVN		LSN		H B C		P DEF	
IHVC845I		PORT NAME							
A	B	C	D	E	F	G			
IHVC846I									

- A** Message
- B** Port name (see “Using Port Names as a Tool in Switching Commands” on page 417)
- C** Switch device number (see “Switch Identifiers” on page 407)
- D** Logical switch number (see “Logical Switch Number (LSN)” on page 408)
- E** Port address (see “Port Addresses” on page 422)
- F** Port status codes (see “Switch Port Hardware Status on a Display Command” on page 418)
- G** I/O definition (see “Switch Ports” on page 416)

Examples

```

D N * 100
IHVC844I
IHVC845I
IHVC846I PORT NAME          SWCH      LSN      PORT      PORT      I/O
                                DEVN      LSN      PORT      H B C P DEF
IHVC847I HA.CHP_88.CVC      0100     01     C0         E0 P CH
IHVC847I HA.CHP_3C         0100     01     C1         D4 P
IHVC847I LINK.200          0100     01     D4         C  C1 P
IHVC847I CU.F00            0100     01     D6         P CU
IHVC847I CU.B20.9034       0100     01     E0         C0 P CU
IHVC847I CU.190            0100     01     EA         P CU
IHVC847I HA.CHP_3A         0100     01     FB         P CH
    
```

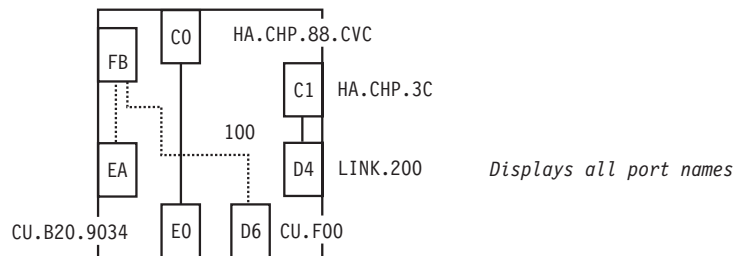


Figure 104. DISPLAY NAME Command - Sample 1

```

D N CU.F00 *
IHVC844I
IHVC845I
IHVC846I PORT NAME          SWCH      LSN      PORT      PORT      I/O
                                DEVN      LSN      PORT      H B C P DEF
IHVC847I CU.F00            0100     01     D6         P CU
IHVC847I CU.F00            0200     02     D6         CU
    
```

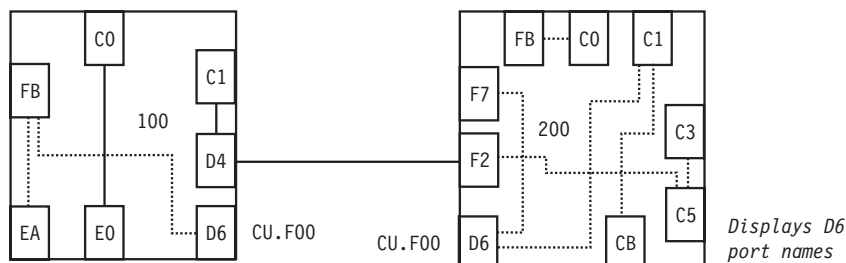


Figure 105. DISPLAY NAME Command - Sample 2

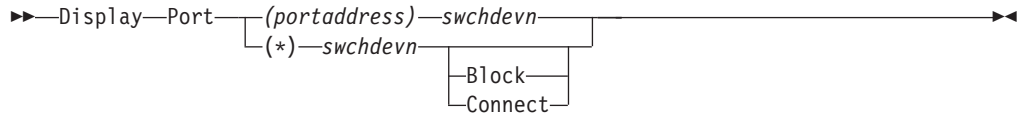
DISPLAY PORT

DISPLAY PORT

Purpose

Use the DISPLAY PORT command to display data about one or all the ports that are implemented and installed on the specified switch.

Syntax



Parameters

(portaddress) | (*)

Specifies that data should be displayed about one addressable port or all (* enclosed in parentheses) the addressable ports. For a discussion, see “Port Addresses” on page 422.

swchdevn

Specifies the switch device number on which the port is located. The switch must be allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

Options

Block | Connect

Specifies that you want data displayed about only those ports that are blocked or statically connected. (If a port is both blocked and statically connected, it would be listed if either alternative is chosen.) If you specify this option, you must specify all addressable ports as an operand (* enclosed in parentheses).

Usage

Unlike the Display Name command, Display Port can apply to only one switch at a time.

For more information on the displayed output, see the page references under the fields:

IHVC844I					PORT				
IHVC845I			SWCH		STATUS		I/O		
IHVC846I	PORT NAME		DEVN	LSN	PORT	H B C	P DEF		
A	B		C	D	E	F	G		

- A** Message
- B** Port name (see “Using Port Names as a Tool in Switching Commands” on page 417)
- C** Switch device number (see “Switch Identifiers” on page 407)
- D** Logical switch number (see “Logical Switch Number (LSN)” on page 408)
- E** Port address (see “Port Addresses” on page 422)
- F** Port status codes (see “Switch Port Hardware Status on a Display Command” on page 418)
- G** I/O definition (see “Switch Ports” on page 416)

IHVC849I ALLOW/PROHIBIT MASK FOR THIS PORT:

A **B**

A Message

B Allow or prohibit mask (see “Allow | Prohibit Mask of a Port” on page 416)

Examples

```

D P (D6) 100
IHVC844I
IHVC845I
IHVC846I PORT NAME
IHVC847I CU.F00
                                SWCH
                                DEVN  LSN  PORT  H B C P DEF
                                0100  01   D6
                                PORT STATUS I/O
                                H B C P DEF
                                P CU

IHVC849I ALLOW/PROHIBIT MASK FOR THIS PORT:
IHVC84AI  A/P  PORT  PORT NAME  I/O DEF
IHVC84BI  A   C0   HA.CHP_88.CVC  CH
IHVC84BI  P   C1   HA.CHP_3C    CH
IHVC84BI  A   C2
IHVC84BI  A   C3
IHVC84BI  A   C4
:
IHVC84BI  A   FB   HA.CHP_3A    CH
IHVC84BI  A   FE
    
```

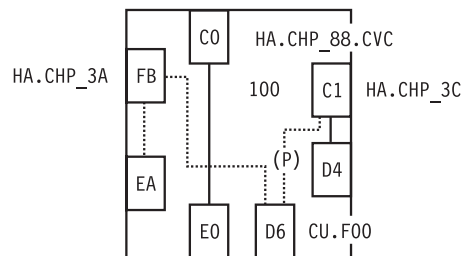


Figure 106. DISPLAY PORT Command - Sample

DISPLAY RESULTS

Purpose

Use the DISPLAY RESULTS command to display the results of the issuing I/O operations’ most recently processed connectivity (except REMOVE and RESTORE Dev), LOGREC, SYNC SWITCH, or WRITE command. Especially in cases in which one or more vary path requests failed, the DISPLAY RESULTS command is a useful tool to help you analyze the resulting configuration status.

For related commands, see “DISPLAY HOST” on page 218 and “DISPLAY VARY” on page 228.

Syntax

►►—Display Results—◄◄

DISPLAY RESULTS

Usage

- In addition to displaying data about its most recently processed connectivity command (except Remove and Restore Dev), the issuing I/O operations displays any subsequent command up to the next connectivity, Logrec, Sync Switch, or Write command.
- To review any additional failed vary path requests resulting from the same command, use the “DISPLAY VARY” on page 228.
- For more information on the displayed output fields, see the page references under the fields:

```
IHVC803I THIS HOST: vtamname  SYSPLEX:          SYSTEM:
IHVC808I VTAMNAME
IHVC80BI vtamname1
IHVC505I   No failures detected by this host
IHVC808I VTAMNAME
IHVC80BI vtamname2
IHVC525I   This host has been RESET off
IHVC500I SWCH DEVN LSN UNIQUE ID                STATUS      CODE
A      B      C      D
```

- A** Message
- B** Switch number (see “Switch Identifiers” on page 407)
- C** Device number (see “Logical Switch Number (LSN)” on page 408)
- D** Logical switch number (see 407)

Examples

Example 1

As shown in the figure below, a chain has been defined, so that ports *CB* and *D6* are statically connected on the pass-thru switch 200.

A user entered N (*D6*) (*CB*) 200 and the command failed.

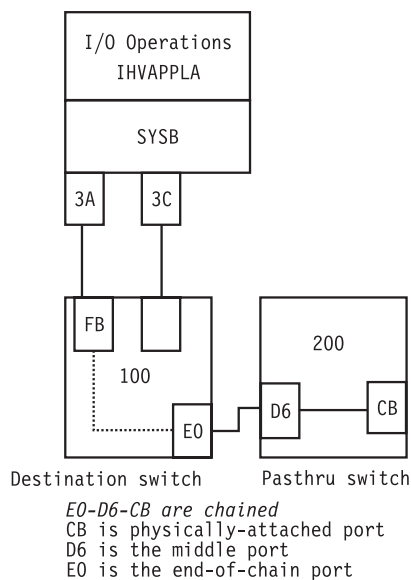


Figure 107. DISPLAY RESULTS Command - Scenario 1.

The user then entered the DISPLAY RESULTS command to analyze the cause of failure.

DISPLAY RESULTS

```

D R
IHVC803I THIS HOST: IHVAPPLA  SYSPLEX: SYSPLEX1  SYSTEM: SYSTEM12
IHVC808I VTAMNAME  SYSPLEX  SYSTEM
IHVC80BI IHVAPPLA  SYSPLEX1  SYSTEM66
IHVC505I   No failures detected by this host
IHVC808I VTAMNAME  SYSPLEX  SYSTEM
IHVC80BI IHVAPPLB  SYSPLEX1  SYSTEM22
IHVC505I   No failures detected by this host
IHVC500I SWCH DEVN LSN UNIQUE ID                STATUS      CODE
IHVC501I  0100  01  009032002IBM01000000034893  OPERATIONAL  00
IHVC520I   Command not sent to this SWCH
IHVC500I SWCH DEVN LSN UNIQUE ID                STATUS      CODE
IHVC501I  0200  02  009032002IBM02000000093622  OPERATIONAL  00
IHVC906I   Cannot DISCONNECT CHAINED port D6
IHVC906I   Cannot DISCONNECT CHAINED port CB
  
```

Example 2

The user tried to Block (C3) 200 NOF.

The command fails because an operational CV converter is attached to port C3.

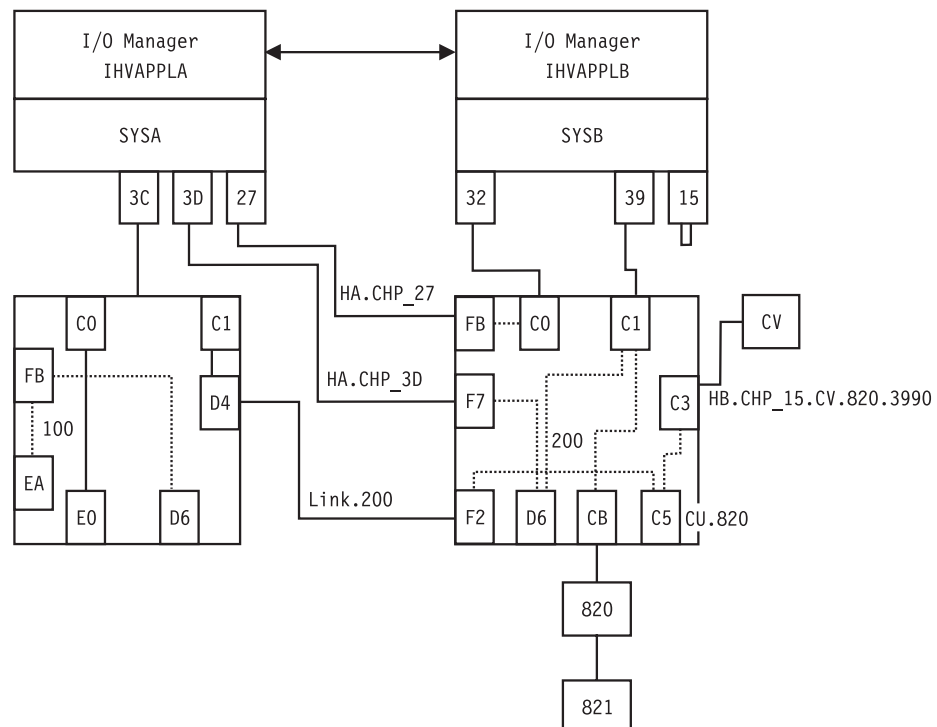


Figure 108. DISPLAY RESULTS Command - Scenario 2

The user entered the DISPLAY RESULTS command to analyze the cause of failure.

DISPLAY RESULTS

```

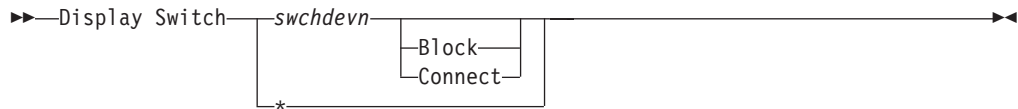
D R
IHVC999I I/O operations display
IHVC808I VTAMNAME      SYSPLEX  SYSTEM
IHVC808I IHVAPPLA     SYSPLEX1  SYSTEM66
IHVC621I  ESCON Converter Model 2(s) detected
IHVC808I VTAMNAME      SYSPLEX  SYSTEM
IHVC808I IHVAPPLB     SYSPLEX1  SYSTEM22
IHVC505I  No failures detected by this host
IHVC500I SWCH DEVN LSN UNIQUE ID                STATUS      CODE
IHVC501I  0100  01  009032002IBM01000000034893 OPERATIONAL  00
IHVC520I  Command not sent to this SWCH
IHVC500I SWCH DEVN LSN UNIQUE ID                STATUS      CODE
IHVC501I  0200  02  009032002IBM02000000093622 OPERATIONAL  00
IHVC622I  ESCON Converter Model 2 paths may require DISABLEMENT:
IHVC623I  ID TYPE MOD SERIAL NUMBR PORT LOGICAL NAME / UNIQUE ID
IHVC626I  CU 003990 G03 000000090046  C5 CU.820
IHVC627I  CV 009035 002 000000020466  C3 HB.CHP_15.CV.820.3990
  
```

DISPLAY SWITCH

Purpose

Use the DISPLAY SWITCH command to display data about one or about all the switches allocated to the issuing I/O operations.

Syntax



Parameters

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

Options

Block | Connect

Specifies that you want data displayed about only those ports that are blocked or are part of a static connection. (If a port is both blocked and statically connected, it is listed if either parameter is chosen.) You can enter this optional parameter only if you also specified an individual switch device number.

Usage

For more information on the displayed output, see the page references under the fields:

```

IHVC833I SWCH
IHVC834I DEVN LSN UNIQUE ID                PORTS SWCH STATUS
A B C D E INSTALLED STATUS      CODE
  
```

A
B

Message
Switch device number (see “Switch Identifiers” on page 407)

DISPLAY SWITCH

- C** Logical switch number (see “Logical Switch Number (LSN)” on page 408)
- D** Unique identifier (see “Switch Unique Identifier” on page 422)
- E** Installed ports (see 407)

	PORT	PORT STATUS			PORT NAME	I/O DEF
		H	B	C	P	
IHVC835I						
IHVC836I						
IHVC837I						
A	B	C	C	D	E	

- A** Message
- B** Port number (see “Port Addresses” on page 422)
- C** Port status code (see “Switch Port Hardware Status on a Display Command” on page 418)
- D** Port name (see “Using Port Names as a Tool in Switching Commands” on page 417)
- E** I/O definition (see “Switch Ports” on page 416)

Examples

```

D S 100
IHVC833I SWCH
IHVC834I DEVN LSN UNIQUE ID          PORTS SWCH STATUS
IHVC838I 0100 01 009032002IBM01000000034893 61 OPERATIONAL 00
IHVC835I
IHVC836I
IHVC837I PORT      H B C P      PORT NAME      I/O DEF
IHVC839I C0        E0 P      HA.CHP_88.CVC CH
IHVC839I C1        D4 P      HA.CHP_3C   CH
IHVC839I C2          P
IHVC839I C3          P
IHVC839I C4          P
:
IHVC839I D4        C1 P      LINK.200    CU
:
IHVC839I FB          P      HA.CHP_3A   CH
IHVC839I FE

```

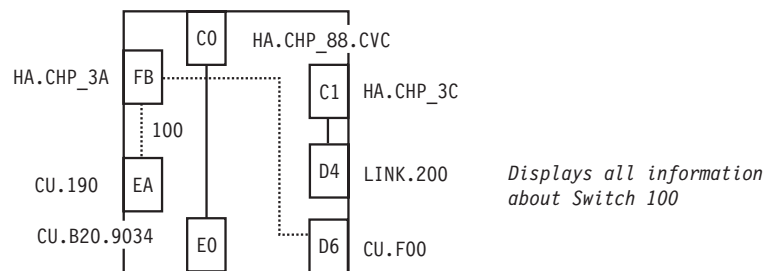


Figure 109. DISPLAY SWITCH Command - Sample 1

```

D S *
IHVC833I SWCH
IHVC834I DEVN LSN UNIQUE ID          PORTS SWCH STATUS
IHVC838I 0100 01 009032002IBM01000000034893 61 OPERATIONAL 00
IHVC838I 0200 02 009032002IBM02000000093622 61 OPERATIONAL 00
IHVC838I 0400 04          0          NOT OPEN 1C

```

DISPLAY TIMEOUT

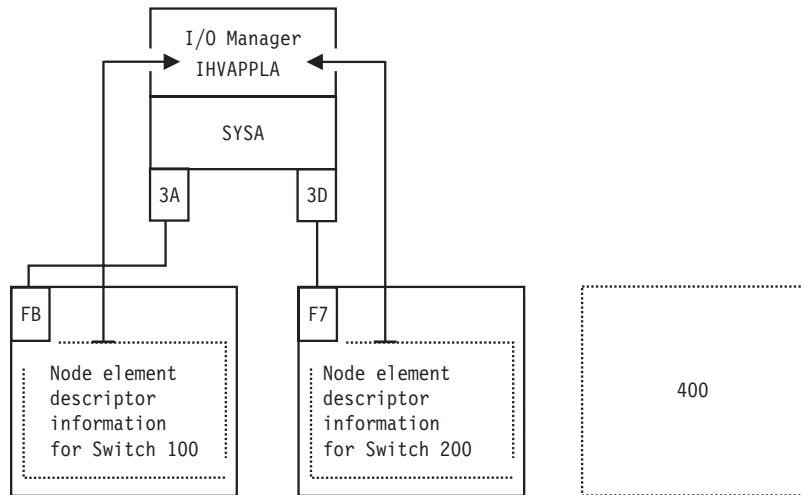


Figure 110. DISPLAY SWITCH Command - Sample 2

DISPLAY TIMEOUT

Purpose

Use the DISPLAY TIMEOUT command to display the maximum number of seconds that the issuing I/O operations will wait to receive votes from the I/O operations that form its voting constituency and that have not been reset off with the command described under “RESET HOST” on page 237. If one or more votes is still outstanding when the time interval lapses, the issuing I/O operations declares a negative consensus.

Syntax

►►—Display Timeout—◄◄

Examples

```
D T
IHVC860I Current timeout value is    60 seconds
```

DISPLAY VARY

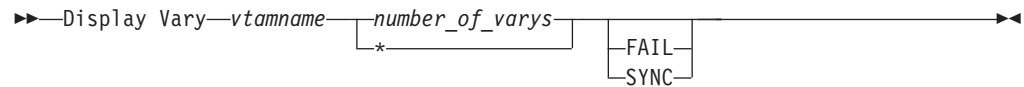
Purpose

Use the DISPLAY VARY command to display a specified number (up to 1500) failed vary path requests that have resulted either from the issuing I/O operations’s most recently processed connectivity command or that were built with the Sync Switch command.

The data displayed depends on the type of command that failed and the options that you specify on the Display Vary command.

See “DISPLAY HOST” on page 218 and “DISPLAY RESULTS” on page 223 for related commands, and “Processing a Vary Path Request” on page 422 for more information.

Syntax



Parameters

vtamname

Specifies the participating I/O operations by its VTAM application ID. The failed vary requests will be listed in the output for that I/O operations (host), but only for a command that was initiated by the issuing I/O operations.

number_of_varys | *

Replace *number_of_varys* with a decimal integer from 1 through 1500. The asterisk (*) specifies all (up to the maximum of 1500). The number of failed vary path requests displayed is independent from similar data displayed by other commands. For example, if you had already displayed three vary path requests using the Display Vary command and want to display 15 *additional* vary path requests with the Display Vary command, specify 18 vary path requests.

Options

SYNC

Specifies that the vary path requests built with the Sync Switch command be displayed.

FAIL

Specifies only the failed vary path requests (if any), or Varies from a connectivity command be displayed.

Usage

- Failed vary path requests listed in this command relate to the path from a CHPID to a device.
- If a vary path request fails, the path through the port or ports specified in the connectivity command could not be brought offline or online, depending on the command that was entered.

DISPLAY VARY

Examples

```
D V IHVAPPLA 90
IHVC999I I/O operations display

IHVC811I VARY TYPE   TRIED   FAILED 1ST   90 FAILURES (DEV,CHP)
IHVC819I OFFLINE      5       3 (0190,3A)(019E,3A)(019D,3A)( , )

IHVC81FI BACKOUT     2       0 ( , )( , )( , )( , )

IHVC83CI CONFIG TYPE TRIED   FAILED 1ST   90 FAILURES (CHP)
IHVC879I No failed CONFIGs on previous command
IHVC872I SYNC TYPE    NUMBER   1ST   90 VARYS (DEV,CHP)
IHVC875I No SYNC VARYs detected on previous command
IHVC853I CONFIG TYPE  NUMBER   1ST   90 CONFIGs (CHP)
IHVC877I No SYNC Configs detected on previous command
```

GETLOCK

Purpose

Use the GETLOCK command to obtain the processing lock for a user ID that enters a command to any instance of I/O operations within the same set of I/O operations. (A set of I/O operations incorporates all the base programs that can participate in consensus processing of a connectivity command initiated by the issuing instance of I/O operations and those that can communicate with one of these participants via VTAM.)

See “UNLOCK” on page 248 for the reciprocal command.

Syntax

▶▶—GETLOCK—◀◀

Usage

- The GETLOCK command is used when a user wants to perform a series of I/O operation commands without interruption.
- You may need to enter the GETLOCK command if another user ID has the lock and will not, or cannot, release it. Such a situation could arise, for example, if the other user’s terminal is inactive.
- Note that default conditions for obtaining the processing lock are provided with the I/O operations Workstation feature and the sample ISPF dialog. You can accept these defaults or customize them for your ISPF user ID or for entries at the workstation.
- The GETLOCK command takes control of I/O operations processing and can, therefore, potentially interrupt a series of connectivity commands being entered by another user ID with unpredictable results.
- If your user ID has control authorization required to enter the Getlock command, be sure you have considered all pertinent aspects of the system I/O environment before issuing this command.
- Note that you can release the lock with the Unlock command and should, of course, do so when you are finished entering I/O operations commands for the session.

Examples

```
GETLOCK
IHVC000I GETLOCK    command successful
```

LOGREC

Purpose

Use the LOGREC command to have I/O operations instruct the specified switch or switches to send their log data to the host (system control program) on which the issuing I/O operations is running.

Syntax

```
▶▶—LOGREC—swchdevn————▶▶
                *
```

Parameters

swchdevn | *

Specifies one switch or all the switches (* not enclosed in parentheses) allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

Usage

- The LOGREC command remains in effect across I/O operations sessions, unless the host image becomes dysfunctional.
- If you enter the LOGREC command, it is advisable to do so when the I/O operations base program is started.
- The LOGREC command causes any data that I/O operations has accumulated for display with the DISPLAY RESULTS command to be refreshed.

Examples

```
LOGREC 100
IHVC000I LOGREC    command successful
```

PROHIBIT

Purpose

Use the PROHIBIT command to prevent data transfer between ports on the same switch or on all switches allocated to the issuing I/O operations.

Unlike the BLOCK command, the PROHIBIT command allows the two ports to have dynamic connections with other ports. You can prohibit data transfer between ports according to the following syntax diagram. See “ALLOW” on page 205 for the reciprocal command.

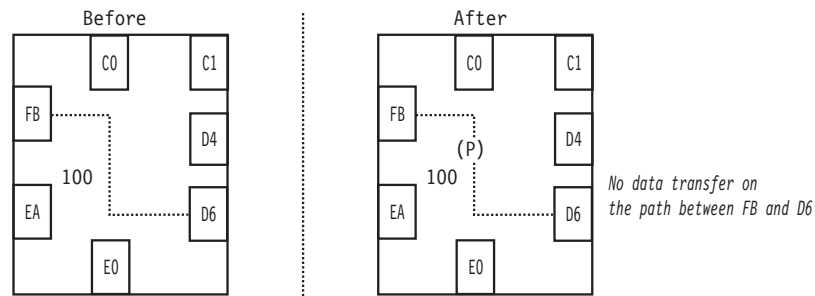


Figure 111. PROHIBIT Command - Sample 1

```
P HB.CHP_39 CU.* 200
IHVC000I PROHIBIT command successful
```

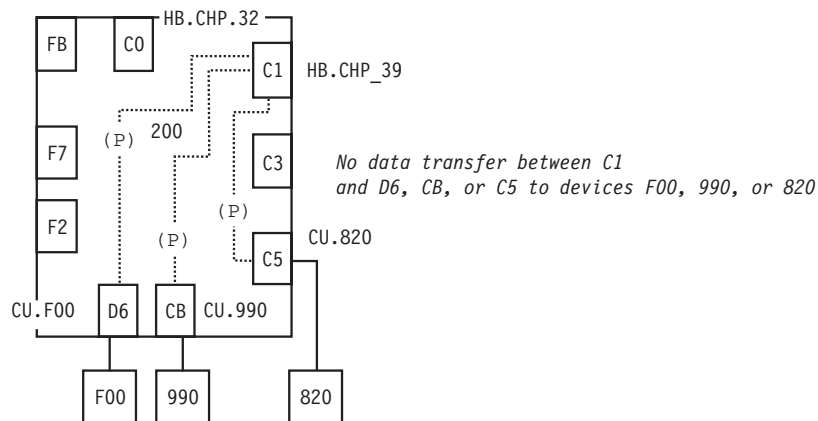


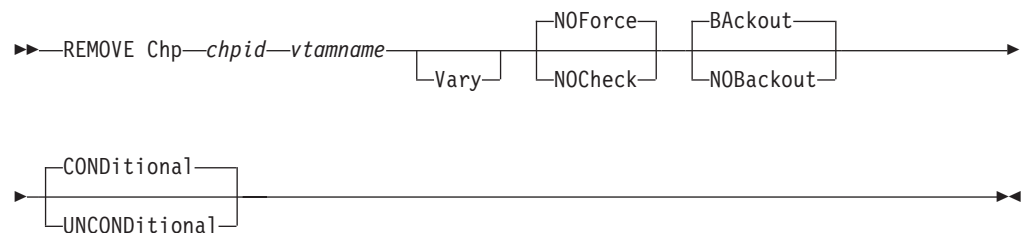
Figure 112. PROHIBIT Command - Sample 2

REMOVE CHP

Purpose

Use the REMOVE CHP command to configure the specified CHPID offline to the host image of the target I/O operations in the command. See “RESTORE CHP” on page 241 for information on the reciprocal command.

Syntax



REMOVE CHP

Parameters

chpid

Specify the CHPID as a hexadecimal number in the range X'00—FF'.

vtamname

Specify the VTAM application name of the target I/O operations.

The target I/O operations is the program that instructs its host image to configure the specified CHPID offline.

The target system can be any I/O operations host to which a VTAM session is established.

You can specify THIS-SYS in uppercase characters if the issuing I/O operations is the target program and if any of the following conditions holds:

- The issuing I/O operation does not have a valid VTAM name.
- The issuing I/O operations' VTAM name is not available.
- VTAM is not available.

To review a list of applicable VTAM names, you can use the Display Host command. If you enter D H *, you can determine whether the issuing I/O operations calls itself THIS-SYS.

Options

VARY

VARY is the default and **NOVary** is *not* an alternative.

I/O operations issues the appropriate vary path-offline requests for all the paths that have been defined to the specified CHPID in the relevant host I/O Control Data Set (IOCDS).

Only after all these paths have been varied offline does the target I/O operations request the target host image to configure the specified CHPID offline.

NOForce | NOCheck

NOForce is the default. Although you can specify **NOCheck**, that alternative has no additional effect in this command.

BACkout | NOBACkout

If you specify **BACkout**, I/O operations attempts to vary those paths back online that had been varied offline successfully if either:

- At least one vary path-offline request failed.
- All the vary path requests were successful, but the program could not configure the CHPID offline.

CONDitional

This is the default option for both the **REMOVE CHP** and **RESTORE CHP** commands. It indicates that no special configure offline or configure online action should be performed.

UNCONDitional

For the **REMOVE CHP** command, this option puts the specified chpids immediately into pending offline status, even if the chpids are currently active, allocated, or reserved.

For the **RESTORE CHP** command, this option brings the specified chpids online, even if there are no paths to the chpids, or if the chpids are pending offline and boxed.

Usage

- The CHPID type must be known to the target I/O operations.
- If the REMOVE CHP command causes one or more devices to be removed from the host image on which the target I/O operations is running, I/O operations automatically attempts to delete these devices from its internal configuration map.
- I/O operations does not attempt to configure the channel offline if any of the relevant vary path requests failed.
- I/O operations does not attempt to configure the channel offline if the target I/O operations is reset off or purged from intersystem communication.
- If the target I/O operations is running in an MVS environment and if the program timed out with the state of the CHPID unknown, I/O operations attempts to configure the channel back online.
- If you are considering specifying a CVC channel for this command, note that SA OS/390 automatically configures a CVC CHPID offline when it processes any of the the following commands for a path defined with that CHPID: BLOCK, DISCONNECT, REMOVE SWITCH, and UNCHAIN.
- The command is not supported if the target I/O operations is running on a host system that is operating as a guest in a VM environment.

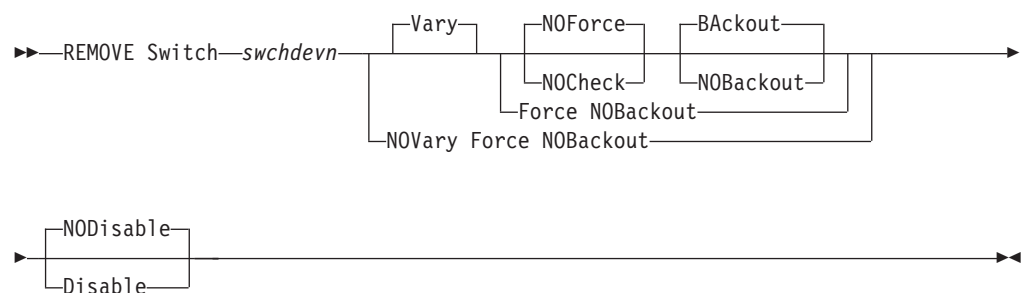
REMOVE SWITCH

Purpose

Use the REMOVE SWITCH command to vary all logical paths through the specified switch offline and, optionally, to disable the unit.

The switch must be allocated to the issuing I/O operations. See “RESTORE SWITCH” on page 243 for the reciprocal command, and “Remove (Quiesce) a Switch” on page 418 for discussion.

Syntax



Parameters

swchdevn

Specifies the switch to be varied offline and optionally to be disabled. The switch must be allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

REMOVE SWITCH

Options

NODisable | Disable

NODisable (default) specifies that every path that passes through the switch is varied offline. (The path to the control unit port, or CUP, is not varied offline.) The switch is not deallocated, or detached, from I/O operations.

Disable specifies that every path that passes through the switch is varied offline. (The path to the control unit port, or CUP, is not varied offline.) The switch is then deallocated, or detached, from I/O operations.

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BAckout | NOBackout see “Making Connectivity Changes” on page 414.

Usage

- If a path through the switch is chained and you intend to remove the switch, physically cancel the definition of the chain first.
- If you specify the Disable option, power to the switch must be turned off and then on before communications can be restored to the unit. See “RESTORE SWITCH” on page 243.

Attention:

Issuing the REMOVE Switch command with the Disable option will switch power off to the IBM 9032 Model 2 ESCON® Director but will just cycle the power (power stays switched on) for the IBM 9032 Model 3 ESCON Director.

- If you specify the Disable option, and if you plan to restore what is physically the same switch using the RESTORE S command later, do not change the switch device offline to MVS or OS/390. However, if you are planning to restore a physically different switch, for example, when replacing a 9032-003 ESCON Director with a 9032-005 ESCON Director, then the correct sequence of operations is as follows:
 1. Issue REMOVE S.
 2. Change the switch device offline to the operation system.
 3. Perform the physical replacement of the switch.
 4. Change the switch online to the operating system.
 5. Then issue RESTORE S.

SA OS/390's REMOVE DEVICE and RESTORE DEVICE can be used to vary the device offline or online to multiple systems as one operation. For further information, refer to the description of “REMOVE and RESTORE DEV (API)” in *System Automation for OS/390 Programmer's Reference*.

- If the command fails, display pathing status with “DISPLAY HOST” on page 218, “DISPLAY RESULTS” on page 223, or “DISPLAY VARY” on page 228. Consider rerunning the command with the Force and Disable options.

Examples

```
REMOVE S 200 D
IHVC000I REMOVE      command successful
```


RESET HOST

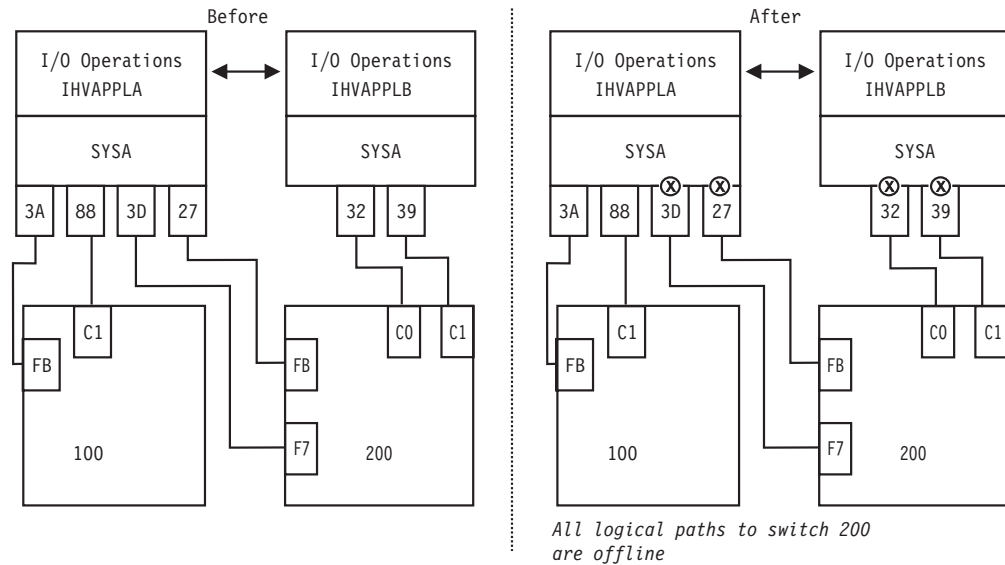


Figure 113. REMOVE SWITCH Command - Sample.

RESET HOST

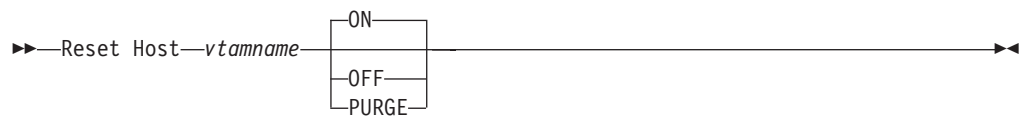
Purpose

Use the RESET HOST command to include or exclude any participant in the issuing I/O operations's consensus processing.

With this command, you can avoid having the issuing I/O operations stop the command from completing because, for example, a participant could not return a vote.

See "DISPLAY HOST" on page 218 for the related command.

Syntax



Parameters

vtamname

Specifies the VTAM application name, or VTAM ID, of the I/O operations targeted in the command.

When I/O operations is started, it writes its VTAM ID to all the switches allocated to it. Should the I/O configuration have no or restricted use of switches, dynamic communication between I/O operations may not be achieved, in which case, the RESET HOST command is used. The RESET HOST command allows an operator or automated program to declare the VTAM IDs of peers to I/O operations. I/O operations participating in consensus processing use these VTAM IDs to communicate with each other.

RESET HOST

ON

Is the default. It specifies that the issuing I/O operations will include the target I/O operations in its consensus processing. (The issuing I/O operations can include itself.) Should the VTAM ID not be recognized, I/O operations records the name and attempts to establish a communication session with the peer. The new peer is included in all subsequent consensus processing.

OFF

Specifies that the issuing I/O operations will exclude the target I/O operations in consensus processing. (The issuing I/O operations can exclude itself.)

PURGE

Specifies that the issuing I/O operations will exclude the targeted I/O operations from participating in its consensus processing until the target host re-registers its VTAM name when it sends a command to one of the switches allocated to both the purged I/O operations and the I/O operations that issued the purge, when the purged I/O operations is restarted, or when a RESET HOST command with the ON operand is issued. Use this option to exclude systems that have ended abnormally or when an incorrect VTAM ID was entered using the RESET HOST command with the ON operand. (The issuing I/O operations cannot purge itself.)

Usage

The RESET HOST command affects an I/O operations's participation only in consensus processing initiated by the issuing I/O operations. It does not affect consensus vary path processing initiated by any other I/O operations, including a broadcast initiated by a host that has been reset off.

When the VTAM ID is not known command processing for RESET HOST *vtamname* ON is as follows:

1. The VTAM ID is recorded by the I/O operations and is included in subsequent consensus processing. Should the name not be successfully recorded the following messages are issued:

```
IHVC002I Reset command failed. RC = 8 Reas= 5000000A  
IHVC401I Host(s) unable to process the RESET command
```

2. An attempt to establish a VTAM session is made. If the session is successfully established with the peer its VTAM ID name is automatically passed to other I/O operations in the domain. Then each I/O operations dynamically establishes its own session to the peer. The following message is issued:

```
IHVC000I RESET command successful
```

3. If the VTAM session is not successfully established the VTAM ID is retained by I/O operations, but the name is not broadcast to other peers. This can be caused, for example, by the specification of an incorrect VTAM ID. Should this occur the following messages are issued:

```
IHVC001I Reset command successful. RC = 4 Reas= 5000000A  
IHVC401I Host(s) unable to process the RESET command
```

Additional information is presented in the Display Results output that indicates the VTAM session was not established.

Examples

```
R H IHVAPPLB OFF  
IHVC000I RESET      command successful
```

```
R H IHVAPPLB ON
IHVC000I RESET      command successful
```

```
R H IHVAPPLB PURGE
IHVC000I RESET      command successful
```

Examples of Using RESET HOST to Declare Peer I/O Operations

No Switch Configuration:

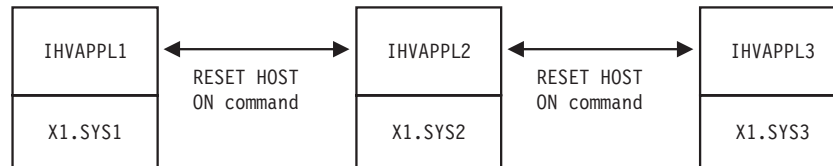


Figure 114. RESET HOST Command - Scenario 1

In the above figure all three I/O operations start without the knowledge of their peers. To establish communication among them, two RESET HOST commands are required, issued on any of the I/O operations. For example, on IHVAPPL1, the following commands are issued:

```
R H IHVAPPL2 ON
IHVC000I RESET      command successful
R H IHVAPPL3 ON
IHVC000I RESET      command successful
```

This results in all I/O operations establishing a communication session between them.

Restricted Switch Configuration:

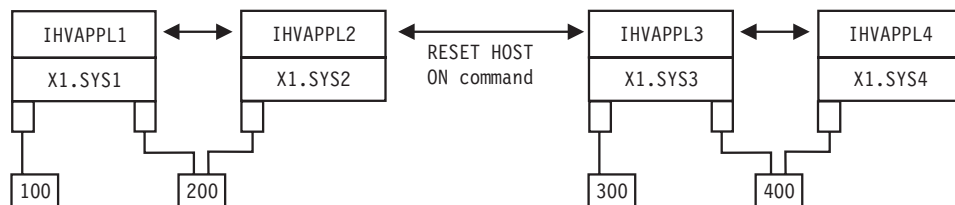


Figure 115. RESET HOST Command - Scenario 2

In the above figure, I/O operations IHVAPPL1 and IHVAPPL2 dynamically establish a session with one another at startup. IHVAPPL3 and IHVAPPL4 do so as well. However, neither group knows about the other due to a lack of a switch attachment. To establish communication among the two groups, only a single RESET HOST command is required and may be issued on any of the I/O operations. For example, on IHVAPPL1, the following command is issued:

```
R H IHVAPPL4 ON
IHVC000I RESET      command successful
```

RESET HOST

This results in all I/O operations establishing a communication session between themselves.

RESET SWITCH

Purpose

Use the RESET SWITCH command to update the issuing I/O operations' configuration map about a single switch or all the switches that are allocated to it.

Syntax

►►—Reset Switch—`swchdevn`—►►
 └──*──┘

Parameters

`swchdevn` | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations.

For a discussion, see “Switch Identifiers” on page 407.

Usage

- If you specify `R S *`, thus resetting all the switches, the issuing I/O operations tries to allocate, or attach, all the switches defined to its host image. In this way, you can provide access to a new switch device number to the issuing I/O operations.
- Make sure you enter this command when you add or modify a switch allocated to the issuing I/O operations during operations.

Examples

```
R S 100  
IHVC000I RESET      command successful
```

The following data is updated:

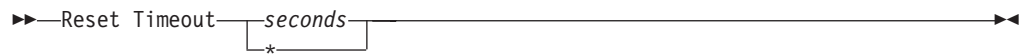
- The VTAM application names of the I/O operations that participate in consensus vary-path processing initiated by the issuing ESCON Manger.
- Switch device number. (See “Switch Identifiers” on page 407.)
- Port names and port attributes. (See “Port Switching Commands” on page 420.)
- Chaining information.

RESET TIMEOUT

Purpose

Use the RESET TIMEOUT command to specify the limit of the time interval –in seconds– that any participating I/O operations will wait for votes to be returned when it broadcasts as the issuing I/O operations.

Syntax



Parameters

seconds | *

Specifies the number of seconds from 0 up to and including 999,999 or the IBM-supplied default of 60 seconds (* not in parentheses).

Usage

- If the issuing I/O operations receives responses from all eligible voters (all voters except any that have been reset off by the issuing I/O operations) before the time limit is reached, and if all the votes are affirmative, command processing continues.

Unless the command is being forced, either a negative vote or a failure to respond within the time limit causes the issuing I/O operations to fail the command.

Examples

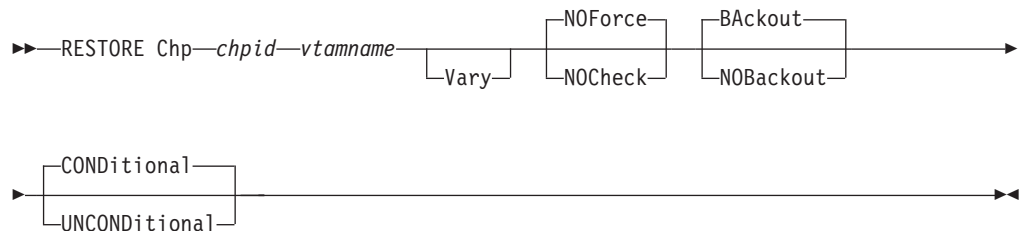
```
R T 120
IHVC000I RESET      command successful
```

RESTORE CHP

Purpose

Use the RESTORE CHP command to configure a specified channel online to the host image on which the target I/O operations is running. See "REMOVE CHP" on page 233 for information on the reciprocal command.

Syntax



Parameters

chpid

Specify the CHPID to be restored as a hexadecimal number in the range X'00—FF'.

RESTORE CHP

vtamname

Specify the VTAM application name of the target I/O operations. The target program is the I/O operations that instructs its host image to configure the specified CHPID online.

The target system can be any I/O operations host to which a VTAM session is established.

You can specify THIS-SYS in uppercase characters if the issuing I/O operations is the target program and if any of the following conditions holds:

- The issuing I/O operations does not have a valid VTAM name.
- The issuing I/O operations' VTAM name is not available.
- VTAM is not available.

Note: Use the Display Host * command to see if the issuing I/O operations calls itself THIS-SYS.)

Options

VARY

VARY is the default and NOVary is *not* an alternative.

The target I/O operations configures the CHPID online before issuing the vary path-online requests for all the relevant paths that are defined to the specified CHPID in the host I/O Control Data Set (IOCDs).

NOForce | NOCheck

NOForce is the default. Although you can enter NOCheck, it has no additional effect in this command.

BAckout | NOBackout

BAckout is the default. Although you can enter NOBackout, I/O operations's processing is not different for this command.

For both BAckout and NOBackout, I/O operations:

- Attempts to configure the channel back offline if the program is running under MVS and timed out with the status of the channel uncertain.
- Does not attempt to vary any paths back offline if one or more relevant vary path-online requests fail.

CONDitional

This is the default option for both the REMOVE and RESTORE CHP commands. It indicates that no special configure offline or configure online action should be performed.

UNCONDitional

For the REMOVE CHP command, this option puts the specified chpids immediately into pending offline status, even if the chpids are currently active, allocated, or reserved.

For the RESTORE CHP command, this option brings the specified chpids online, even if there are no paths to the chpids, or if the chpids are pending offline and boxed.

Usage

- The CHPID type must be known to the target I/O operations.

- If the RESTORE CHP command causes one or more devices to be made available to the host image on which the target I/O operations is running, I/O operations automatically attempts to add these devices to its internal configuration map.
- I/O operations does not attempt to configure the channel online if the target I/O operations is reset off or purged from intersystem communication.
- The target I/O operations cannot bring a channel online if that channel is not available to the host image on which the target program is running.
- If the target I/O operations is running in an MVS environment and if the program timed out with the state of the CHPID unknown, I/O operations attempts to configure the channel back offline.
- If you are considering specifying a CVC channel for this command, note that I/O operations does *not* automatically attempt to configure a CVC CHPID offline when it processes any of the the following commands for a path defined with that CHPID: Chain, Restore Switch, or Unblock. You can, however, use the RESTORE CHP command to configure the CVC CHPID online.
- The command is not supported if the target I/O operations is running on a host system that is operating as a guest in a VM environment.

RESTORE SWITCH

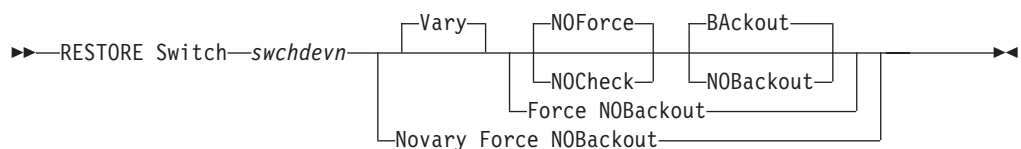
Purpose

Use the RESTORE SWITCH command to restore logical path status through a switch. I/O operations automatically issues any vary path requests that are needed to synchronize path status with the current physical settings stored at the switch.

If the switch is not allocated that will now be done.

See “REMOVE SWITCH” on page 235 for the reciprocal command and “Restore (Enable) a Switch” on page 416 for a discussion.

Syntax



Parameters

swchdevn

Specifies the switch to be restored. For a discussion, see “Switch Identifiers” on page 407.

Options

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BAckout | NOBackout see “Making Connectivity Changes” on page 414.

RESTORE SWITCH

Usage

- The Restore Switch command restores paths attached to the switch according to the current switch settings-to units.
- If you replace a switch, which was disabled with the Remove Switch command, with another switch, any previous chaining data is voided. Chaining data in the new switch is used, instead. If the replacement switch is physically linked to another switch, you must define the chained path. See “Chain and Unchain a Switchable Path” on page 408 for more information.

Examples

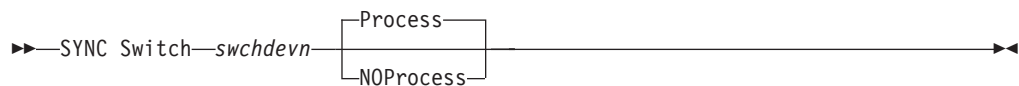
```
RESTORE S 100
IHVC000I RESTORE      command successful
```

SYNC SWITCH

Purpose

Use the SYNC SWITCH to build and, optionally, to issue vary path requests that would be required to synchronize path status with the current settings maintained at the specified switch.

Syntax



Parameters

swchdevn

Specifies the switch. For a discussion, see “Switch Identifiers” on page 407.

Options

Process

(default) instructs the issuing I/O operations to issue the appropriate vary path requests.

NOPProcess

instructs I/O operations to build the list, but not to process it.

Usage

- Use the command described in “DISPLAY VARY” on page 228 to display the vary path requests that would be required if you choose the noprocess option or the failed vary path requests if you chose the process option.
- Consider using the command if you have entered one or more connectivity commands with the Force option, knowing that pathing status will no longer be synchronous with the switch settings.
- Consider using the SYNC SWITCH command if connectivity changes have been made to the switch at the switch console.

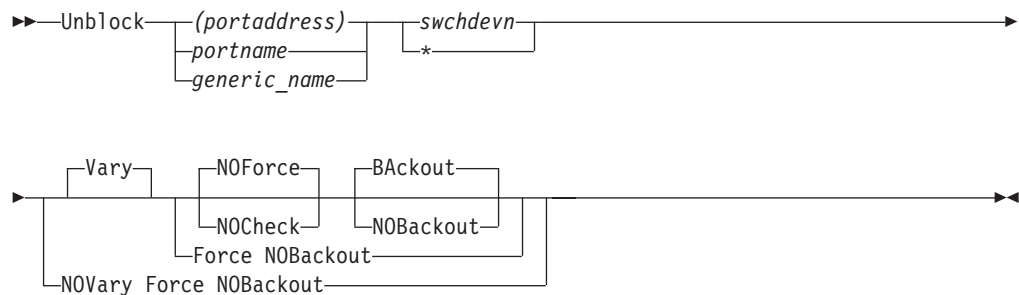
- SYNC SWITCH differs from RESET SWITCH in that the latter command synchronizes the issuing I/O operations' internal configuration map with the physical settings of the switch, but does not synchronize path status.

UNBLOCK

Purpose

Use the UNBLOCK command to permit data transfer through a port that had been blocked. See "BLOCK" on page 207 for the reciprocal command.

Syntax



Parameters

(portaddress) | portname | generic_name

Specifies the port to be unblocked by its port address (enclosed in parentheses), by its individual port name, or by a generic port name. For a discussion, see "Port Switching Commands" on page 420.

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations. For a discussion, see "Switch Identifiers" on page 407.

Options

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BBackout | NOBackout see "Making Connectivity Changes" on page 414.

Usage

If a CVC or parallel CHPID is involved, see "A "Partially-ESCON" Path" on page 412 for more information.

Examples

```
UNBLOCK (D6) 100
IHVC000I UNBLOCK    command successful
```

UNBLOCK

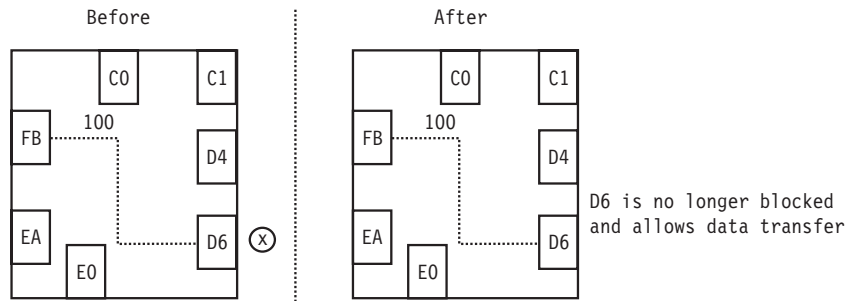


Figure 116. UNBLOCK Command - Sample 1

```
U CU.F00 *
IHVC000I UNBLOCK    command successful
```

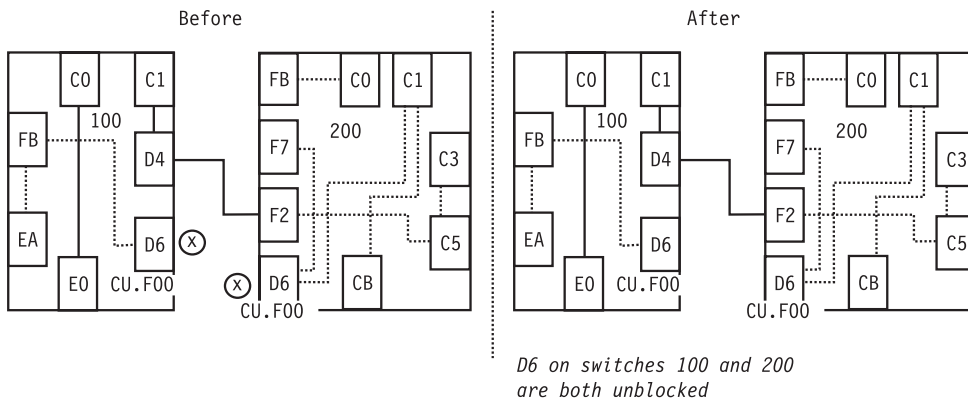


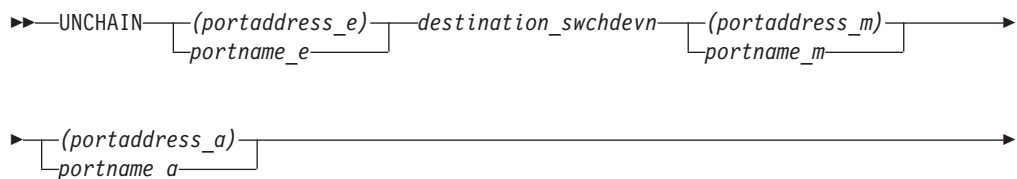
Figure 117. UNBLOCK Command - Sample 2

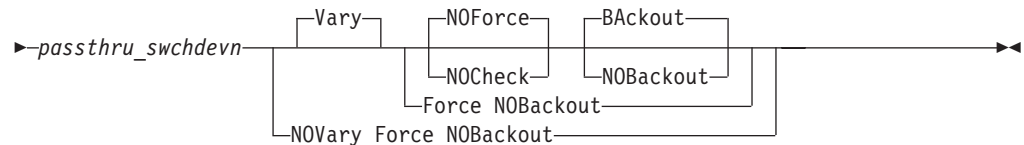
UNCHAIN

Purpose

Use the UNCHAIN command to cancel the definition of a chain in a chained path. See "Chain and Unchain a Switchable Path" on page 408 for more information. See "CHAIN" on page 209 for the reciprocal command.

Syntax





Parameters

(portaddress_e) | portname_e

Specifies the end port by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

destination_swchdevn

Specifies the device number of the destination switch in the chained path. For a discussion, see “Switch Identifiers” on page 407.

(portaddress_m) | portname_m

Specifies middle port by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

(portaddress_a) | portname_a

Specifies the port in the chained path to which the CHPID or control unit is physically attached by its port address (enclosed in parentheses) or by its port name. For a discussion, see “Port Switching Commands” on page 420.

passthru_swchdevn

Specifies the device number of the pass-thru switch in the chained path. For a discussion, see “Switch Identifiers” on page 407.

Options

For a discussion on Vary | NOVary, NOForce | NOCheck | Force, and BACKout | NOBackout see “Making Connectivity Changes” on page 414.

Usage

- Use the Force option to remove a chained path that is supporting the last path to the switch.
- Make sure that you cancel the definition of a chain before you recable either of the chained switches of the chained ports that are affected.
- The definition of a chain is voided if either of the chained switches is replaced.

Examples

```
UNCHAIN (F2) 200 (D4) (C1) 100
IHVC000I UNCHAIN      command successful
```

UNLOCK

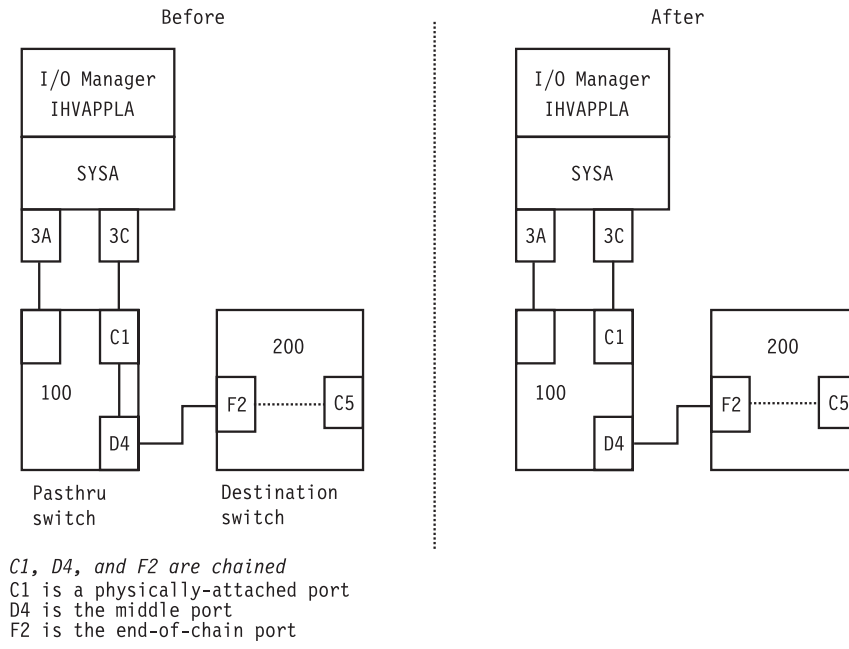


Figure 118. UNCHAIN Command - Sample

UNLOCK

Purpose

Use the UNLOCK command to release I/O operations processing from your user ID, so that another user ID can use an I/O operations within the same set. (A set of I/O operations consists of the participants in the issuing I/O operations' vary-path processing and those I/O operations that can communicate with any of the participants.)

See "GETLOCK" on page 230 for the reciprocal command.

Syntax

►► UNLOCK ◀◀

Examples

```
UNLOCK  
IHVC000I UNLOCK    command successful
```

WRITE

Purpose

Use the WRITE command to assign, or to write, a port name to an addressable port on one or on all the switches allocated to the issuing I/O operations.

Syntax

```
►► Write—portname—(portaddress)—swchdevn—►►
                                     *
```

Parameters

portname

Specifies the port name you want to be assigned. To avoid assigning a port name that contains an unprintable character, specify the name in uppercase letters and use only the following special characters: digits, period, underscore. Do not exceed 24 characters. See “Using Port Names as a Tool in Switching Commands” on page 417 for more information.

(portaddress)

Specifies the addressable port to which the port name is being assigned.

swchdevn | *

Specifies one switch or all switches (* not enclosed in parentheses) allocated to the issuing I/O operations. For a discussion, see “Switch Identifiers” on page 407.

Usage

- When assigning a name to a port, consider whether you want that port to be targeted by a generic name.
- The Write command refreshes the data that could be displayed with the Display Results command. Therefore, it is advisable to assign port names when I/O operations is started.
- If you are using the sample ISPF dialog, you can assign a switch device name to a switch. The name will be displayed in the dialog’s display of that switch configuration in matrix format.
 - Either name the name of the switch in the SWCH Name field of the matrix , as described under “A Sample Way to Modify a Switch Matrix” on page 422.
 - Or, use the Write command to write a port name to the switch’s control unit port (CUP). If you do not know the CUP address, you can find out with the DISPLAY DEV command. (For example, enter D D 0500 * for switch 500. In the displayed output, the CUP is to the right of CONTROL UNIT DATA.

Examples

```
W HA.CHP_88.CVC (C0) 100
IHVC0001 WRITE      command successful
```

WRITE

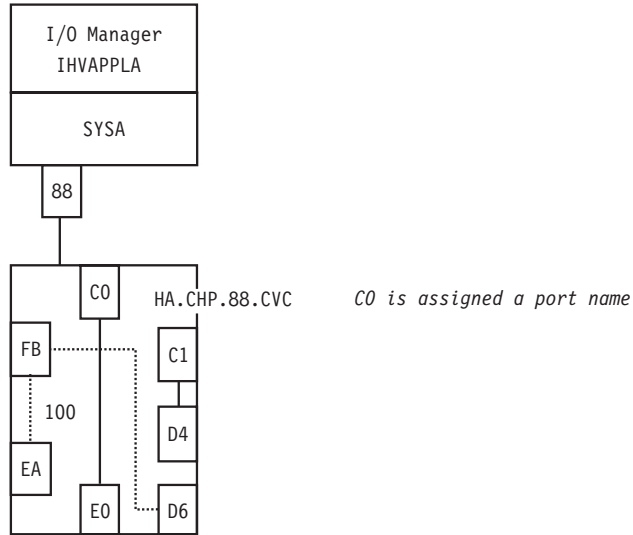


Figure 119. WRITE Command - Sample 1

```
WRITE CU.F00 (D6) *
IHVC000I WRITE      command successful
```

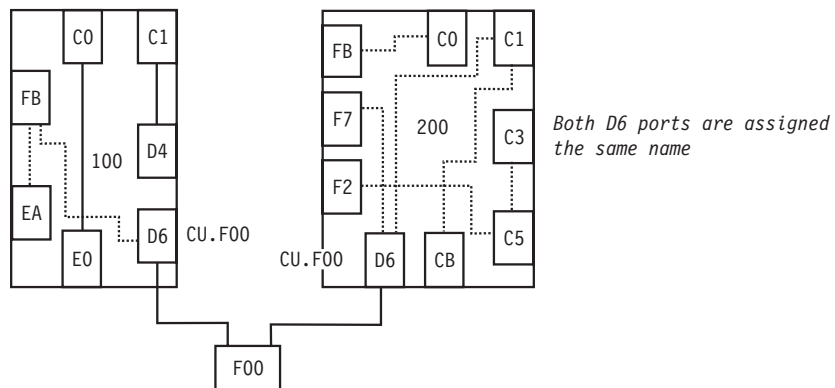


Figure 120. WRITE Command - Sample 2

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This part describes SA OS/390 processor operations commands in detail—their purpose, their format, and specifics of how to use them.

For general information about the SA OS/390 commands, refer to *System Automation for OS/390 User's Guide*.

Using Processor Operations Commands

General Information

Processor operations commands consist of three basic types:

- Host-based commands
- PC commands
- Common commands

You normally issue processor operations commands at a NetView console from the focal-point system. Commands can be issued only from the active console unless otherwise specified in this book. You normally enter commands at the processor operations PC only during problem determination. Individual command descriptions indicate the commands that you can issue from the PC keyboard and any differences in command syntax when issued from the PC keyboard rather than from the NetView console.

Commands whose names start with ISQ are issued as shown in the syntax diagrams, starting with the command name.

Except for the common commands, processor operations commands whose names do not start with ISQ are preceded by the ISQSEND command. These commands include processor commands, PC commands, service language commands, and the names of keys to simulate processing. The ISQSEND command sends the command to the processor operations PC or target system for processing.

Figure 121 presents the components that pertain to command processing in a processor operations configuration using a PC connection.

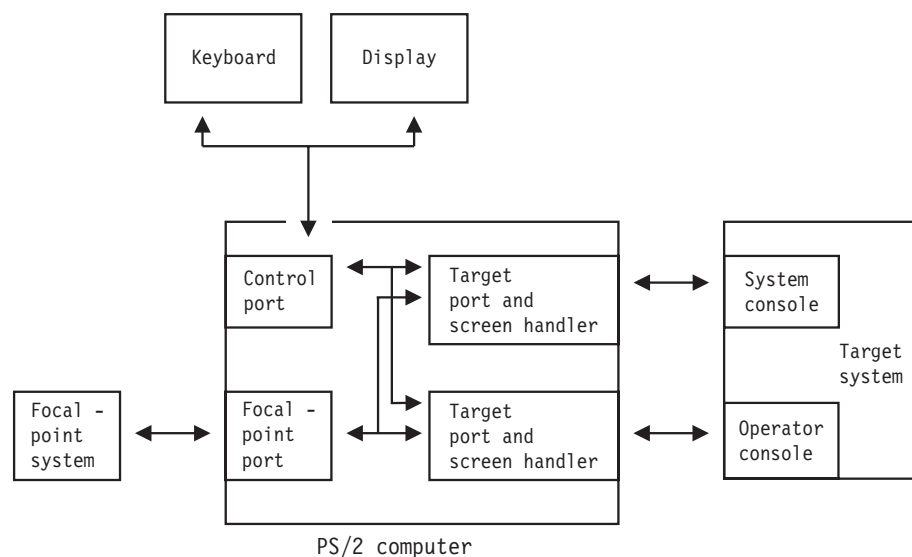


Figure 121. Command Processing with a Processor Operations PC

Processor Operations Commands for a Target System

Some commands go directly to the target system. These commands are not processed by the processor operations PC, they are passed through to the target system. Typically, you type these commands the same as you type them on the command line of a real console because they are entered either from passthru mode or from automation programming. However, you can also issue them from the NetView console at the focal-point system by using the ISQSEND command.

To send a command to a target system, use the ISQSEND command. For screen-oriented target systems attached through a PS/2 computer, use the ISQSEND command to enter both Service Language Commands (SLCs) and operating system commands. For OCF-based target systems, use the ISQSEND command to send operating system commands and operations management commands, such as PROFILE.

In general, the processor operations PC receives the command from the focal-point system and simulates putting it into the current input field and pressing the Enter key for the target console. The exception to this is on the 308x port: the processor operations PC looks at the command being sent and, if the command is one of the following commands, it simulates pressing the CMD key rather than the Enter key (because the 3082 accepts those commands only when they are entered using the CMD key).

- Assign
- DMSG
- FDC
- Send

Processor Operations PC Commands

There are three kinds of processor operations PC commands:

- Focal-point port
- Control
- Screen handler

You issue PC focal-point port commands to the PC focal-point port. PC focal-point commands are not preceded by a pound sign (#).

You issue PC control commands to the PC control port. The PC control port controls the processor operations PC and its interfaces with the focal-point system and the target system. PC control commands are not preceded by a pound sign (#).

You issue PC screen handler commands to target ports, PC ports which appear to a target system as an attached console. These are the ports that correspond to the console designators SC (system console), OC (operator console), and so on. The target ports run screen handler software that lets them communicate correctly with the target system's operating system and with the type of processor on which the target system is running. PC screen handler commands are always preceded by a pound sign (#).

Except for the commands that can only be entered at the processor operations PC keyboard, you can use the ISQSEND command (described on page 296) to issue the PC commands from the focal-point workstation.

The Warp Server for e-business and Access Feature for Personal Communications software must be running on the PC before you can initialize the PC. (The

configuration dialogs may specify that none, some, or all PCs be automatically initialized when you start processor operations. You may have to issue commands yourself to start specific PC.)

Initializing a PC starts the distributed feature code. This causes the processor operations icon to appear on the desktop. The processor operations icon is removed from the desktop when you use the ISQXCLS command to shutdown the PC.

To issue a processor operations command from the PC keyboard, use the mouse to click on the processor operations icon (you will see some activity statistics when you do this.) This connects the keyboard to the control port so commands typed on the PC keyboard are recognized and processed by the PC. Then issue the SET ACTIVE command to make the PC control the active focal-point port so the PC screen handler ports will acknowledge and process the commands you type at the PC keyboard.

The PC EMULATE command establishes a local pass-through session that lets you enter commands from the PC keyboard. (The ISQTCC command establishes a pass-through session that lets you enter commands from the console at the focal-point system.) In a local pass-through session, you enter commands at the PC keyboard the same way you would enter them at the console at the target system.

Common Commands

Common commands are preceded by the ISQCCMD command (described in detail on page 291). Use common commands in APIs whenever possible because they provide a single product image across various hardware and software implementations. Regardless of the processor type or the operating system running at your target system, the common command is the same. This can potentially minimize the need for future modifications to your automation routines should you modify or upgrade your processor hardware or operating system type.

Passthru Mode

Use the ISQTCC command (described on page 305) to put the NetView console at the focal-point system into a passthru mode.

This makes the console at the focal-point system seem to be either an operator console or a system console at the target system you specify. You enter commands from passthru mode in the same way as you would enter them at the target system operator console or system console.

Refer to *System Automation for OS/390 User's Guide* for a more detailed description of passthru mode.

Note: For NetView connections, passthru is achieved using DCAF, and the ISQTCC command is not applicable.

Common Commands

This chapter describes the common commands provided by SA OS/390 processor operations. Common commands provide a single-product image across various hardware and software implementations, potentially minimizing future modifications.

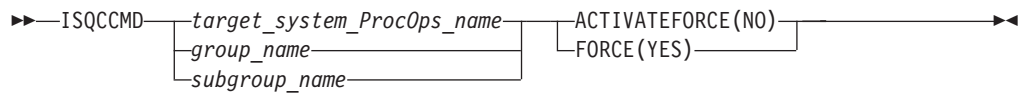
ACTIVATE

Purpose

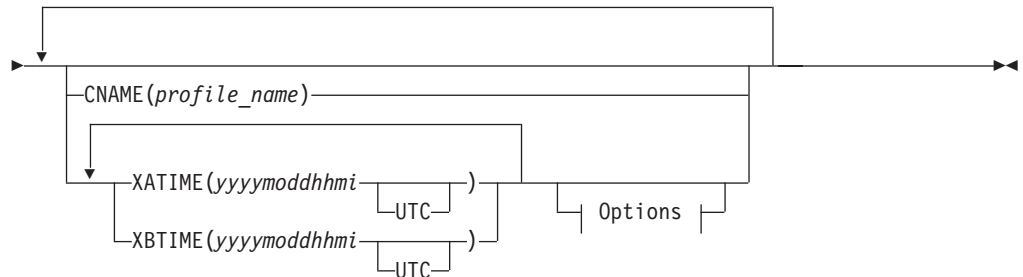
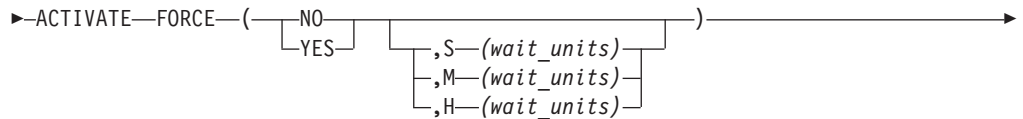
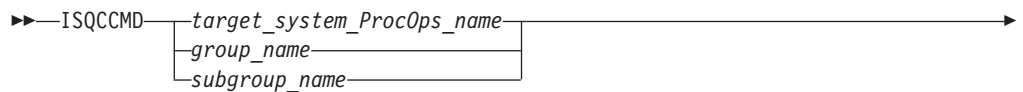
The ACTIVATE command causes the target system to perform a complete initialization. This initialization extends from a power-on reset to performing the initial program load process.

Syntax

For screen-oriented processors and OCF-based processors



For OCF-based processors



ACTIVATE

Options:

|—INTERVAL(*dddhhmi*)—|
|—COUNT—(*—count_of_intervals—*)—|

Requirements

The requirements for the ACTIVATE command to complete successfully are:

- Processor operations must be active.
- The addressed target system must have a status of UNKNOWN, CLOSED, or INITIALIZED for the default setting of FORCE(NO) to work. See “Examples” on page 321 for a list of status settings.
- For 4381 and 308x processors, the target hardware must be in the correct mode (370, XA, or ESA) with the correct IOCDs.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to “ISQCCMD” on page 291.

FORCE

Requests conditional processing of commands that are disruptive to the operating system control program and application work that is in progress. Use of this operand is based on the operating state of the target processor.

NO

Specifies that processing of the command is to continue *only* if the target CPU control program is not in the operating state. Specify FORCE(NO) in a situation where you would *not* want to disrupt the control program work-in-progress.

YES

Specifies that processing of the command is to continue *even* if the target CPU control program is in the operating state. Specify FORCE(YES) in a situation where disruption of the control program work-in-progress is not important, such as in recovery situations.

S Specifies that the time-out value is measured in seconds.

M Specifies that the time-out value is measured in minutes.

H Specifies that the time-out value is measured in hours.

wait-units

Specifies an optional time-out value in 1-to-5 decimal digits, ranging from 0 to 65535. This value provides the OCF with an interval for delaying the acceptance of, or rejection of, the command. The presence of this value in the operand causes the OCF to signal a quiesce event to the operating system control program, for those operating systems that support this action.

A time-out value is only allowed on timed command requests.

When a time-out value is specified with FORCE(NO), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(NO) with no time-out value.

ACTIVATE

When a time-out value is specified with FORCE(YES), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(YES) with no time-out value.

FORCE(NO) requires that the associated command *fail* when useful work is taking place. For ACTIVATE these *fail* states are *operating* and *wait*. when FORCE(NO) is specified or when FORCE defaults to NO. The command fails whenever the processor is in those states.

CNAME

Specifies the name of a profile to be sent to the processor's support element. If this keyword is not used, SA OS/390 selects a profile name from among those specified in the configuration dialogs, and uses it in the ACTIVATE operations management command sent to the support element. The selection is based on the current status (ESA or LPAR) of the target hardware and the actual status of the target system. If this keyword is not used and no appropriate profile name was specified in the configuration dialogs, SA OS/390 processor operations omits the CNAME operand from the ACTIVATE command sent to the support element.

profile_name

Indicates the name of the profile. IBM recommends that you let processor operations select the profile name automatically rather than overriding processor operations' selection with the *profile_name* parameter.

XATIME

Specifies a time *<at or after>* which the associated command may begin processing. The time specified is determined by the OCF clock of the receiving support element.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

mo Specifies a month of the year, in 2 decimal digits, from 01 to 12.

dd Specifies a day of the month, in 2 decimal digits, from 01 to 31.

hh Specifies an hour of the day, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

If present, indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

The default, if XATIME is not explicitly stated, is for the command to be processed immediately.

When XATIME is not accompanied by an XBTIME, there is no end time by which command processing must be started.

XBTIME

Specifies a time *<at or before>* which the associated command must begin processing. A combination of XATIME and XBTIME specifies a "timing-window" within which processing is to be attempted.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

ACTIVATE

- mo* Specifies a month of the year, in 2 decimal digits, from 01 to 12.
- dd* Specifies a day of the month, in 2 decimal digits, from 01 to 31.
- hh* Specifies an hour of the day, in 2 decimal digits, from 00 to 23.
- mi* Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

Indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

When XBTIME is not accompanied by an XATIME, the command may be processed immediately.

INTERVAL

Indicates that the associated command is to be processed repeatedly. It specifies the time span between processing repetitions. The specified value is added to XATIME, XBTIME, or both (if both are present in the command), to determine the next processing time.

ddd

Specifies a number of days, in 3 decimal digits, from 000 to 048.

hh Specifies a number of hours, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

Notes:

1. The default, if INTERVAL is not explicitly stated, is one execution of the command.
2. INTERVAL is only valid if XATIME or XBTIME, or both, are also present in the command.
3. Within a given timing-window, there may be only one repetition of a command.

COUNT

Specifies the number of times, based on specified timing controls, that processing of an operations command should be attempted. Timing controls are provided through the combined use of the XATIME, XBTIME, INTERVAL, and COUNT operands.

count-of-intervals

Is a decimal value, from 1 to 65535. This value indicates the maximum number of times that processing is to be attempted and is decremented after each processing attempt. When the count has been decremented to zero, the request is removed from the timed list.

The default value, if COUNT is not explicitly stated, is for the timing-window interval to be repeated forever, or until canceled.

Use of the COUNT operand requires that INTERVAL, and a combination of either XATIME or XBTIME.

Usage

Caution: The ACTIVATE command can be very disruptive when you specify FORCE(YES), so use this command carefully. The SA OS/390 processor

ACTIVATE

operations status facility knows only about status changes performed from within SA OS/390. If you load and start a target system's operating system outside of SA OS/390 (such as from the SA OS/390 processor operations passthru facility or from the console at the remote target system) rather than by using the SA OS/390 commands, SA OS/390 does not know that the status of the target system has changed.

The effect of the ACTIVATE FORCE keyword applies only to target systems defined to SA OS/390. Because SA OS/390 does not know the target system was activated from outside of SA OS/390, it considers the target system status to be UNKNOWN. The functions performed by the ACTIVATE common command will disrupt the operating system even if you specify the FORCE(NO) option because the SA OS/390 status facility does not indicate that the target system is already initialized and running.

When you do not specify FORCE(YES):

- The ACTIVATE command checks to see if the same logical partition name is in use by another target system. If so, the ACTIVATE command is rejected; if not, processing continues.
- For screen-oriented processors, if the designated target system runs in a logical partition and a power-on reset is required (the current IOCDS name is not the same as the IOCDS name defined in the designated target system definition) and there are logical partitions with other initialized target systems, the ACTIVATE command is rejected; if not, processing continues.
- ACTIVATE also checks target hardware that is not logically partitioned to see if the target hardware is in use by another target system. If so, the ACTIVATE command is rejected; if not processing continues.

You can delay execution of the ACTIVATE command on OCF-based processors by using the scheduled request operands (XATIME, XBTIME, INTERVAL, and COUNT). Use these operands carefully. Once an ACTIVATE command with scheduled request operands has been sent to the target system (or target systems), there is no further interaction with the focal-point system until the ACTIVATE commands eventually complete execution, which could be hours or even days later. Moreover, when the command includes the INTERVAL operand and possibly also the COUNT operand, the ACTIVATE commands can run multiple times, further extending the duration and impact of the effects of the original ACTIVATE command issued on the focal-point system.

ACTIVATE processing on OCF-based processors can also produce the surprising result that more target systems are affected than the one explicitly specified in the command or those included in a target group or subgroup specified in the command. The additional target systems are CPC images on a processor in LPAR mode. These additional target systems are activated when a Reset or Image profile specifies additional profile names in the AUTOACT operand. To avoid unintended activations, operators should be kept aware of the linkages between profiles.

Using either scheduled requests or auto-activated logical partitions causes SA OS/390 to receive "unsolicited" responses from one or more target systems. SA OS/390 uses these responses to update its status information and to attempt to initialize the corresponding target systems.

When you specify FORCE(YES):

- The ACTIVATE command overrides the requirements that a target system have a status of UNKNOWN, CLOSED, or INITIALIZED.

ACTIVATE

- Processing of the ACTIVATE command is performed even if the target system has a status condition of IPL COMPLETE, IPL FAILED, LOAD FAILED, or one of the WAITING FOR...MESSAGE conditions.

The ACTIVATE command performs only the processing that is required. For example, it will perform a power-on reset only when required, and it does not initialize a target system that is already initialized correctly.

Restrictions and Limitations

The ACTIVATE command does not perform resource requirement checks.

The default form of the ACTIVATE command is rejected if the addressed target system has a status other than UNKNOWN, CLOSED, or INITIALIZED.

Return Codes

The ISQCCMD command (described on page 291) generates the return codes for common command processing.

For information about the ACTIVATE command and OCF-based processors, refer to *System Automation for OS/390 Operator's Commands*.

The ACTIVATE Command and OCF-Based Processors

The effects of an ACTIVATE common command issued to an OCF-based processor depend on several factors, the most important of which are the profile(s) used during command processing and the current and intended state of the processor.

Table 4 on page 264 shows the relationships among these factors and the processing that results in various circumstances. The meaning of the columns in the table is as follows:

Column Heading	Meaning
Intended Result of ACTIVATE	The mode of the target hardware (ESA or LPAR) and the processing you want to take place as a result of the ACTIVATE command. You indicate your intention by means of the profile that you specify on the command or that processor operations or the support element selects for use.
Current Target Hardware State and Mode	The actual state and mode of the processor at the time you issue the command. The current state can be: <ul style="list-style-type: none">• POWERED OFF• POWER-ON RESET REQUIRED• POWER-ON RESET COMPLETE If the state is POWER-ON RESET COMPLETE, a target system may or may not have been activated.
Profile Name in ACTIVATE Command Issued by User	The name of a profile you specified in the CNAME operand of the ACTIVATE command, or None.

Column Heading	Meaning
Profile Name(s) Available from Configuration Dialogs	The names of one or more profiles that may have been defined to processor operations in the configuration dialogs. If no CNAME operand is specified on the ACTIVATE command, processor operations looks for a profile name of the appropriate type in the internal table built from the configuration dialog input. Reset, Image, and Load profile names may be specified on the Target System Description panels for OCF-based processors. See the description of panels ISQDPT5B and ISQDPT5C in <i>System Automation for OS/390 Customizing and Programming</i> .
Operands in ACTIVATE Command processor operations Sends to Support Element	Processor operations sometimes modifies the ACTIVATE command you issue, and it sends the modified command to the processor's support element. These two columns show how processor operations indicates which profile and operations command facility (OCF) are to be used for processing the command.
Profile Name	The profile name, if any, that processor operations puts in the CNAME operand.
OCF	The indication processor operations gives of the operations command facility (OCF) to be used. The primary OCF is indicated by omitting the OCFNAME operand, and a secondary OCF is indicated by giving the OCF's name in the OCFNAME operand.
Support Element (SE)	These two columns describe the effects of the ACTIVATE command from the perspective of the processor's support element.
Recommended Profile	The profile(s) IBM recommends using for the circumstances described in the columns to the left.
Processing	The processing the support element performs as a result of the ACTIVATE command sent by processor operations.

ACTIVATE

Table 4. Profiles and the ACTIVATE Command for OCF-Based Processors

Intended Result of ACTIVATE	Current Target Hardware State and Mode	Profile Name in Activate Command Issued by User	Profile Name Available from Customization Dialogs	Operands in ACTIVATE Command Processor Operations Sends to Support Element		Support Element (SE)	
				Profile Name	OCF	Recommended Profile	Processing
ESA mode Power-on reset CPC Optionally IPL target system (CPC)	POWER-ON RESET REQUIRED or POWERED OFF	CNAME operand	Not used	Profile specified in user command	Primary	Reset profile with AUTOACT operand pointing to Load profile	SE powers on CPC (if required) and performs power-on reset processing as specified in the specified Reset profile. SE IPLs the CPC as specified in a Load profile: <ul style="list-style-type: none"> If AUTOACT operand in Reset profile points to a Load profile, SE uses that Load profile. If Reset profile has no AUTOACT operand, SE uses the default Load profile. If the name specified in the command is not a Reset profile, SE rejects the command.
		None	Reset profile	Reset profile specified in customization dialogs	Primary		
		None	None	None	Primary		
ESA mode IPL target system (CPC)	POWER-ON RESET COMPLETE Target system activated or not activated ESA mode	CNAME operand	Not used	Profile specified in user command	Primary	Load profile	IPLs the CPC as specified in the Load profile. SE powers on CPC (if required) and performs power-on reset processing as specified in the default Reset profile. If the default Reset profile points to a Load profile (as it does when initially set up by IBM), SE IPLs the CPC using that profile. <ul style="list-style-type: none"> If the default Reset profile has no AUTOACT operand, SE uses the default Load profile.
		None	Load profile	Load profile specified in customization dialogs	Primary		
		None	None	None	Primary		

Table 4. Profiles and the ACTIVATE Command for OCF-Based Processors (continued)

Intended Result of ACTIVATE	Current Target Hardware State and Mode	Profile Name in Activate Command Issued by User	Profile Name Available from Customization Dialogs	Operands in ACTIVATE Command Processor Operations Sends to Support Element		Support Element (SE)	
				Profile Name	OCF	Recommended Profile	Processing
ESA mode Power-on reset CPC Optionally IPL target system (CPC)	POWER-ON RESET COMPLETE Target system activated or not activated LPAR mode	CNAME operand None	Not used Reset profile	Profile specified in user command Reset profile specified in customization dialogs None	Primary Primary Primary	Reset profile with AUTOACT operand pointing to Load profile	<p>Initializes the target hardware into ESA mode as specified in the specified Reset profile.</p> <p>SE IPLs the CPC as specified in a Load profile:</p> <ul style="list-style-type: none"> • If AUTOACT operand in Reset profile points to a Load profile, SE uses that Load profile. • If Reset profile has no AUTOACT operand, SE uses the default Load profile. <p>If the name specified in the command is not a Reset profile, SE rejects the command.</p> <p>Initializes the target hardware into ESA mode as specified in the SE's default Reset profile.</p> <p>If the default Reset profile points to a Load profile (as it does when initially set up by IBM), SE IPLs the CPC using that profile.</p> <ul style="list-style-type: none"> • If the default Reset profile has no AUTOACT operand, SE uses the default Load profile.

ACTIVATE

Table 4. Profiles and the ACTIVATE Command for OCF-Based Processors (continued)

Intended Result of ACTIVATE	Current Target Hardware State and Mode	Profile Name in Activate Command Issued by User	Profile Name Available from Customization Dialogs	Operands in ACTIVATE Command Processor Operations Sends to Support Element		Support Element (SE)	
				Profile Name	OCF	Recommended Profile	Processing
LPAR mode Power-on reset CPC Optionally activate one or more target systems (partitions)	POWER-ON RESET REQUIRED or POWERED OFF	CNAME operand	Not used	Profile specified in user command	Primary	Reset profile with AUTOACT operand pointing to Image profile(s)	SE powers on CPC (if required) and performs power-on reset processing as specified in the specified Reset profile. • If specified profile is not a Reset profile, SE rejects the command. SE activates partitions specified in Image profile(s) pointed to by the AUTOACT operand in Reset profile. • If no Image profiles are specified, no partitions are activated. • If an Image profile contains Load information, the image is IPLed. – A load is not attempted if the Image is in coupling facility mode.
		None	Reset profile	Reset profile specified in customization dialogs	Primary		
Optionally IPL one or more target systems (partitions)			None	None	Primary		As initially set up by IBM, the default Reset profile specifies ESA mode. Therefore, for the SE to be able to use default profiles to power-on reset the CPC in LPAR mode and to activate partitions as described above, the default Reset profile must have been changed to specify LPAR mode. In that case, processing is as described above.

Table 4. Profiles and the ACTIVATE Command for OCF-Based Processors (continued)

Intended Result of ACTIVATE	Current Target Hardware State and Mode	Profile Name in Activate Command Issued by User	Profile Name Available from Customization Dialogs	Operands in ACTIVATE Command Processor Operations Sends to Support Element		Support Element (SE)	
				Profile Name	OCF	Recommended Profile	Processing
LPAR mode Activate target system (partition) Optionally IPL target system (partition)	POWER-ON RESET COMPLETE Target system not activated LPAR mode	CNAME operand	Not used	Profile specified in user command	Secondary	Image profile	SE activates and possibly IPLs partition as specified in an Image or Load profile <ul style="list-style-type: none"> If the specified profile is an Image profile: <ul style="list-style-type: none"> Activate partition using specified Image profile. If the Image profile contains Load information, the image is IPLed. <ul style="list-style-type: none"> A load is not attempted if the Image is in coupling facility mode. If the specified profile is a Load profile: <ul style="list-style-type: none"> Activate partition using Image profile with the same name as the partition IPL partition using specified Load profile. If the Image profile specifies coupling facility mode, the SE does not activate the partition. If the name specified in the command is neither an Image nor Load profile, SE rejects the command. SE attempts to use the default Image profile and usually fails. Succeeds only when the partition is named "DEFAULT".
		None	Image or Load profile	Image profile specified in customization dialogs, if available. Otherwise, Load profile	Secondary		
			None	None	Secondary		

ACTIVATE

Table 4. Profiles and the ACTIVATE Command for OCF-Based Processors (continued)

Intended Result of ACTIVATE	Current Target Hardware State and Mode	Profile Name in Activate Command Issued by User	Profile Name Available from Customization Dialogs	Operands in ACTIVATE Command Processor Operations Sends to Support Element		Support Element (SE)	
				Profile Name	OCF	Recommended Profile	Processing
LPAR mode Activate target system (partition) Optionally IPL target system (partition)	POWER-ON RESET COMPLETE Target system activated LPAR mode	CNAME operand	Not used	Profile specified in user command	Secondary	Image profile	SE activates and possibly IPLs partition as specified in an Image or Load profile <ul style="list-style-type: none"> • If the specified profile is an Image profile: <ul style="list-style-type: none"> - Deactivate partition. - Activate partition using specified Image profile. - If the Image profile contains Load information, the image is IPLed. <ul style="list-style-type: none"> - A load is not attempted if the Image is in coupling facility mode. • If the specified profile is a Load profile: <ul style="list-style-type: none"> - IPL partition using specified Load profile. - If the partition is in coupling facility mode, the Activate fails. If the name specified in the command is neither an Image nor Load profile, SE rejects the command.
		None	Load or Image profile	Load profile specified in customization dialogs, if available. Otherwise, Image profile	Secondary		
			None	None	Secondary		IPLs the partition as specified in the SE's default Image profile.

Table 4. Profiles and the ACTIVATE Command for OCF-Based Processors (continued)

Intended Result of ACTIVATE	Current Target Hardware State and Mode	Profile Name in Activate Command Issued by User	Profile Name Available from Customization Dialogs	Operands in ACTIVATE Command Processor Operations Sends to Support Element		Support Element (SE)	
				Profile Name	OCF	Recommended Profile	Processing
LPAR mode Power-on reset CPC Optionally activate one or more target systems (partitions) Optionally IPL one or more target systems (partitions)	POWER-ON RESET COMPLETE Target system activated or not activated ESA mode	CNAME operand	Not used	Profile specified in user command	Primary	Reset profile with AUTOACT operand pointing to Image profile(s)	Initializes the target hardware into LPAR mode as specified in the specified Reset profile. Activates partition(s) specified in the Image profile(s) if the Reset profile contains an AUTOACT operand pointing to Image profile(s). <ul style="list-style-type: none"> If no Image profiles are specified, no partitions are activated. If an Image profile contains Load information, the image is IPLed. If the name specified in the command is a Load profile, the SE remains in ESA mode and it IPLs the CPC. If the name specified in the command is neither a Reset nor Load profile, SE rejects the command. As initially set up by IBM, the default Reset profile specifies ESA mode. Therefore, for the SE to be able to use default profiles to power-on reset the CPC in LPAR mode and to activate partitions as described above, the default Reset profile must have been changed to specify LPAR mode. In that case, processing is as described above.
		None	Reset profile	Reset profile specified in customization dialogs	Primary	None	
			None	None	Primary		

DEACTIVATE

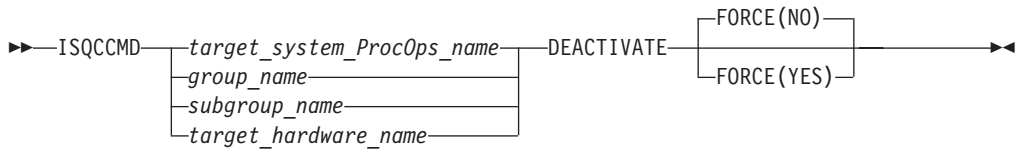
DEACTIVATE

Purpose

The DEACTIVATE command causes the target system to end normal operation. It also closes the system console and operator console ports.

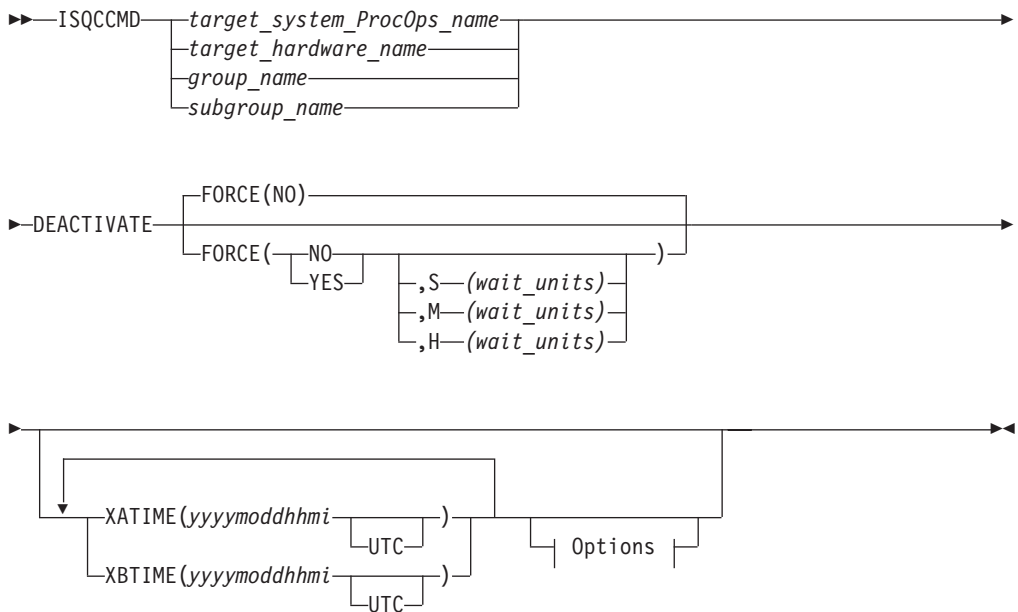
Syntax

For Screen-Oriented Processors and OCF-Based Processors

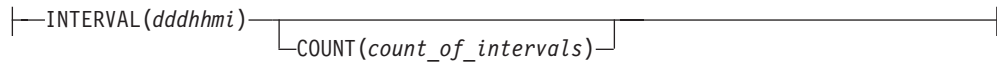


Note: target_hardware_name is supported for OCF-based processors only.

For OCF-Based Processors



Options:



Requirements

Processor operations must be active for this command to complete successfully.

The addressed target system must be initialized.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to “ISQCCMD” on page 291.

FORCE

Requests conditional processing of commands that are disruptive to the operating system control program and application work that is in progress. Use of this operand is based on the operating state of the target processor.

NO

Specifies that processing of the command is to continue *only* if the target CPU control program is not in the operating state. Specify FORCE(NO) in a situation where you would *not* want to upset the control program work-in-progress.

YES

Specifies that processing of the command is to continue *even* if the target CPU control program is in the operating state. Specify FORCE(YES) in a situation where disruption of the control program work-in-progress is not important, such as in recovery situations.

S Specifies that the time-out value is measured in seconds.

M Specifies that the time-out value is measured in minutes.

H Specifies that the time-out value is measured in hours.

wait-units

Specifies an optional time-out value in 1-to-5 decimal digits, ranging from 0 to 65535. This value provides the OCF with an interval for delaying the acceptance of, or rejection of, the command. The presence of this value in the operand causes the OCF to signal a quiesce event to the operating system control program, for those operating systems that support this action.

A time-out value is only allowed on timed command requests.

When a time-out value is specified with FORCE(NO), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(NO) with no time-out value.

When a time-out value is specified with FORCE(YES), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(YES) with no time-out value.

The default, if FORCE is not explicitly stated, is FORCE(NO).

FORCE(NO) requires that the associated command *fail* when useful work is taking place. The DEACTIVATE command’s formal fail criteria when FORCE(NO) is specified or when FORCE defaults to NO is *operating*.

XATIME

Specifies a time *<at or after>* which the associated command may begin processing. The time specified is determined by the OCF clock of the receiving support element.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

mo Specifies a month of the year, in 2 decimal digits, from 01 to 12.

DEACTIVATE

dd Specifies a day of the month, in 2 decimal digits, from 01 to 31.

hh Specifies an hour of the day, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

If present, indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

The default, if XATIME is not explicitly stated, is for the command to be processed immediately.

When XATIME is not accompanied by an XBTIME, there is no end time by which command processing must be started.

XBTIME

Specifies a time *<at or before>* which the associated command must begin processing. A combination of XATIME and XBTIME specifies a "timing-window" within which processing is to be attempted.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

mo Specifies a month of the year, in 2 decimal digits, from 01 to 12.

dd Specifies a day of the month, in 2 decimal digits, from 01 to 31.

hh Specifies an hour of the day, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

Indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

When XBTIME is not accompanied by an XATIME, the command may be processed immediately.

INTERVAL

Indicates that the associated command is to be processed repeatedly. It specifies the time span between processing repetitions. The specified value is added to XATIME, XBTIME, or both (if both are present in the command), to determine the next processing time.

ddd

Specifies a number of days, in 3 decimal digits, from 000 to 048.

hh Specifies a number of hours, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

Notes:

1. The default, if INTERVAL is not explicitly stated, is one execution of the command.
2. INTERVAL is only valid if XATIME or XBTIME, or both, are also present in the command.
3. Within a given timing-window, there may be only one repetition of a command.

COUNT

Specifies the number of times, based on specified timing controls, that processing of an operations command should be attempted. Timing controls are provided through the combined use of the XATIME, XBTIME, INTERVAL, and COUNT operands.

count-of-intervals

Is a decimal value, from 1 to 65535. This value indicates the maximum number of times that processing is to be attempted and is decremented after each processing attempt. When the count has been decremented to zero, the request is removed from the timed list.

The default value, if COUNT is not explicitly stated, is for the timing-window interval to be repeated forever, or until canceled.

Use of the COUNT operand requires that INTERVAL, and a combination of either XATIME or XBTIME.

Defaults

The DEACTIVATE command defaults to FORCE(NO).

Usage

Use this common command to close a target system. Closing a target system does the following:

- Ends any active sessions with the target system
- Disables the target system
- Performs any required end-of-day activities
- Quiesces the target system

If this command is directed to a target hardware name rather than to a target system ProcOps name, the entire processor complex is brought to a power-off state.

If you do not specify FORCE(YES), the DEACTIVATE command checks to make sure it will not be disruptive by performing the following processing:

- If the target system runs in a logical partition and the same logical partition name is initialized to another target system in the same target hardware, the DEACTIVATE command is rejected and processing of the command halts.
- On a non-partitioned target system, if the target hardware has another target system initialized to it, the DEACTIVATE command is rejected and processing of the command halts.

Restrictions and Limitations

- When closing a target system, the DEACTIVATE common command issues an MVS QUIESCE (or equivalent) command and hardware system reset at the system console port if appropriate. This processor command may be processed in the NNT-driven part of shutdown procedures, if necessary.
- The DEACTIVATE common command also does a system reset of the target system, and disables and releases the focal-point ports.
- To reinitialize a target system that was shut down with the DEACTIVATE common command, you must issue the ACTIVATE common command (described on page 257). For a screen-oriented processor, the ISQXPL command (described on page 331) or the ISQXCLS command (described on page 311) can be used.

DEACTIVATE

- The DEACTIVATE common command does not close processor operations PC ports. Use the ISQXCLS command (described on page 311) to perform these actions.
- On processor S/390 Multiprise 3000 from the 390-CMOS hardware family, the DEACTIVATE common command will issue a power-off if no more images are found operational. The integrated support element is also switched off. This is different from other processors of the 390-CMOS family, where the power-off stage of the DEACTIVATE command only affects the CPC but not the SE. A powered-off Multiprise 3000 cannot be restarted using SA OS/390 processor operations. The system must be started manually before the OCF can be used to perform an ACTIVATE command remotely.

Return Codes

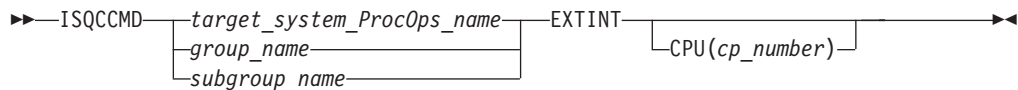
The ISQCCMD command (described on page 291) generates the return codes for common command processing.

EXTINT

Purpose

The EXTINT command causes the target system to perform the external interrupt function on a central processor that exists on a target hardware processor.

Syntax



Requirements

Processor operations must be active for this command to complete successfully.

The addressed target system must be initialized for this command to complete successfully.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to “ISQCCMD” on page 291.

CPU

Indicates a central processor is to be interrupted.

(*cp_number*)

Is the address of the central processor to be interrupted.

Valid values are 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9. The *cp_number* variable is dependent on the type, model and configuration of the processor targeted. The following processors are supported: zSeries, 390-CMOS, 9021, 9121, 4381, 3090, and 308x.

No space is allowed between the keyword CPU and the left parenthesis.

Defaults

This command defaults to the current central processor on the addressed target hardware if a central processor is not specified. Depending on the processor, the current central processor may be the default specified on the processor's OPRCTL panel.

For screen-oriented processors, you can find out this value by issuing the following command string:

```
ISQSEND target console F OPRCTL
ISQSEND target console #SCREEN 1 24
```

For OCF-based processors, you can find out this value by issuing the following command string:

```
ISQSEND target SC PROFILE OP(READ) TYPE(LOAD) CNAME(profile_name)
```

Usage

Issue the EXTINT command to generate an interrupt request to the processor which will be processed at the end of the current unit of work (unless other interrupt requests are pending), causing the program status word (PSW) to be swapped with a new PSW, and initiating processing from an address in the new PSW.

Restrictions and Limitations

- This command is not supported for coupling facility target systems.
- The CPU keyword is not supported on 4381 processors.
- The values for the CPU keyword cannot exceed what is physically installed in the processor.
- On a 4381 processor, the EXTINT command simulates pressing the Intr (interrupt) key. Further manual action may be requested by the 4381 processor; for example, a dyadic 4381 processor will ask you which processor you want to interrupt.

Return Codes

The ISQCCMD command (described on page 291) generates the return codes for common command processing.

INTFRST

Purpose

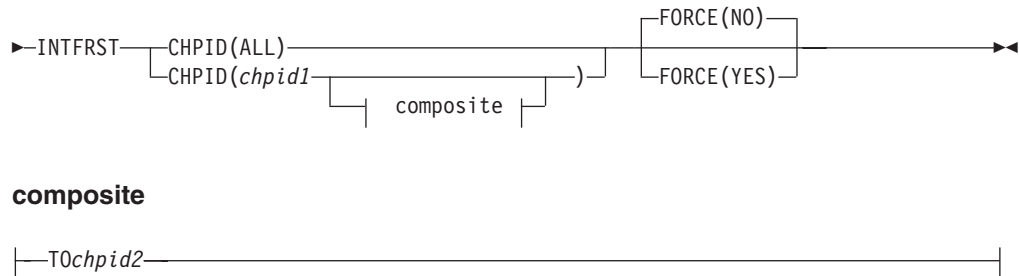
The INTFRST command causes the target system processor to perform the interface reset function. This function consists of an I/O reset, and resetting and initializing the target system channels, without resetting the processor itself.

Syntax

```

▶▶—ISQCCMD—target_system_ProcOps_name—▶
                |
                |—group_name—
                |—subgroup_name—
  
```

INTFRST



composite

Requirements

Processor operations must be active.

The addressed target system must be initialized for this command to complete successfully.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to “ISQCCMD” on page 291.

ALL

Indicates all channels are to be reset.

chpid1

Is a hexadecimal digit from X'00' to X'FF'.

chpid2

Is a hexadecimal digit from X'00' to X'FF' equal to or greater than *chpid1*.

FORCE(NO)

Indicates the force option is not being specified. The channels will be reset only if the reset will not be disruptive. This is the default value. No space is allowed between the keyword FORCE and the left parenthesis.

FORCE(YES)

Indicates the force option is being specified. The channels will be reset regardless of whether the reset will be disruptive. No space is allowed between the keyword FORCE and the left parenthesis.

Defaults

The INTFRST command defaults to FORCE(NO).

Usage

Issue INTFRST to recover channels from failure conditions. This causes the channels to become inoperative; you must vary them online after issuing INTFRST.

If you do not specify FORCE(YES), the INTFRST command checks to make sure it will not be disruptive, by performing the following processing:

- If the target system runs in a logical partition and the same logical partition name is initialized to another target system in the same target hardware, the INTFRST command is rejected and processing of the command halts.
- On a non-partitioned target system, if the target hardware has another target system initialized to it the INTFRST command is rejected and processing of the command halts.

Restrictions and Limitations

- The CHPID values are not checked for validity or correct syntax.
- INTFRST is not supported on the following processors and target systems:
 - zSeries and 390-CMOS processors
 - Any processor in LPAR mode
 - Coupling facility target systems
 - 4381
 - 308X

Return Codes

The ISQCCMD command (described on page 291) generates the return codes for common command processing.

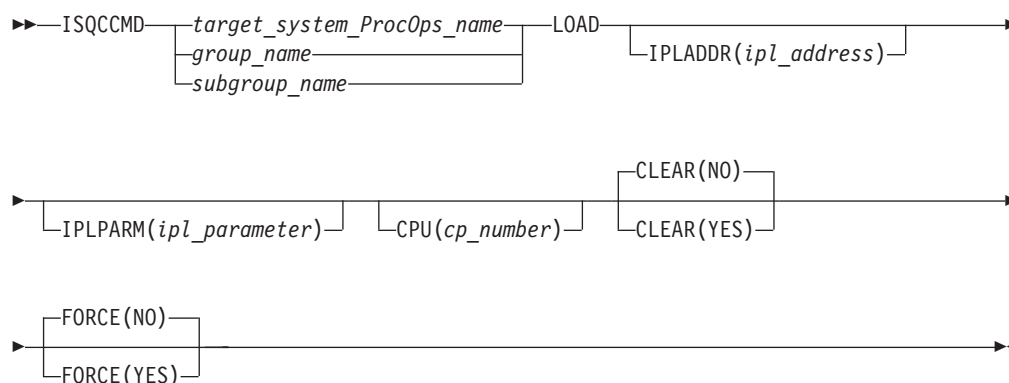
LOAD

Purpose

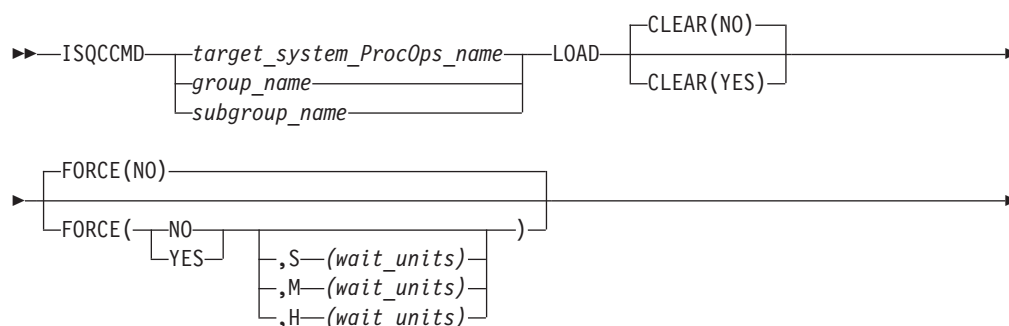
The LOAD command performs the initial program load process for a target system processor. This command is not supported for coupling facility target systems.

Syntax

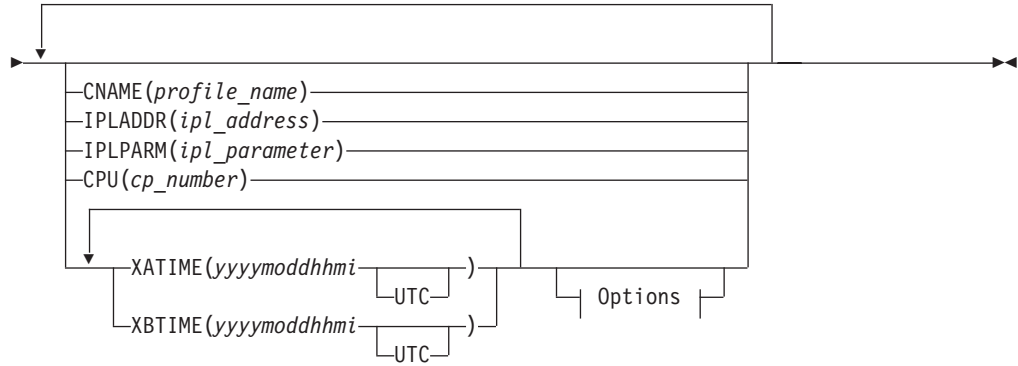
For Screen-Oriented and OCF-based Processors



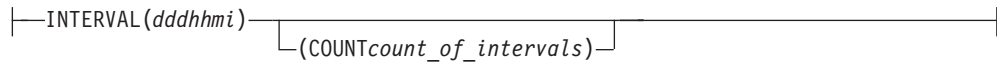
For OCF-based Processors



LOAD



Options:



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The addressed target system must have a status of at least INITIALIZED.
- The addressed target system cannot have a status of UNKNOWN, CLOSED, or IPL COMPLETE for the default setting of FORCE(NO) to work.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to "ISQCCMD" on page 291.

CLEAR(NO)

Indicates the function of clearing storage is not to be performed; the LOAD common command issues a normal LOAD command. No space is allowed between the keyword CLEAR and the left parenthesis. This is the default.

CLEAR(YES)

Indicates the function of clearing storage is to be performed; the LOAD common command issues a LOAD CLEAR command. No space is allowed between the keyword CLEAR and the left parenthesis.

FORCE

Requests conditional processing of commands that are disruptive to the operating system control program and application work that is in progress. Use of this operand is based on the operating state of the target processor.

NO

Specifies that processing of the command is to continue *only* if the target CPU control program is not in the operating state. Specify FORCE(NO) in a situation where you would *not* want to upset the control program work-in-progress.

YES

Specifies that processing of the command is to continue *even* if the target

CPU control program is in the operating state. Specify FORCE(YES) in a situation where disruption of the control program work-in-progress is not important, such as in recovery situations.

- S** Specifies that the time-out value is measured in seconds.
- M** Specifies that the time-out value is measured in minutes.
- H** Specifies that the time-out value is measured in hours.

wait-units

Specifies an optional time-out value in 1-to-5 decimal digits, ranging from 0 to 65535. This value provides the OCF with an interval for delaying the acceptance of, or rejection of, the command. The presence of this value in the operand causes the OCF to signal a quiesce event to the operating system control program, for those operating systems that support this action.

A time-out value is only allowed on timed command requests.

When a time-out value is specified with FORCE(NO), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(NO) with no time-out value.

When a time-out value is specified with FORCE(YES), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(YES) with no time-out value.

The default, if FORCE is not explicitly stated, is FORCE(NO).

FORCE(NO) requires that the associated command *fail* when useful work is taking place. For this command the formal fail criteria when FORCE(NO) is specified or when FORCE defaults to NO is the *operating* state.

IPLADDR

Indicates that the variable following it in parenthesis is the IPL address parameter.

(ipl_address)

Specifies the IPL address as four hexadecimal digits. No space is allowed between the keyword IPLADDR and the left parenthesis.

IPLPARAM

Indicates that the variable following it in parenthesis is an IPL parameter.

(ipl_parameter)

Specifies an IPL parameter to be issued with the Load command. This parameter can be 1 through 8 characters long. Lowercase letters are translated to uppercase letters. No space is allowed between the keyword IPLPARAM and the left parenthesis.

CPU

Indicates that the variable following it in parentheses is the central processor address parameter.

(cp_number)

Specifies the central processor address.

LOAD

Valid values are 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9. The *cp_number* variable is dependent on the type, model and configuration of the processor targeted. The following processors are supported: zSeries, 390-CMOS, 9021, 9121, 4381, 3090, and 308x.

Specifying this parameter also changes the value in the internal variable for the addressed target system to the number of the specified central processor address. No space is allowed between the keyword CPU and the left parenthesis.

CNAME

Specifies the name of a Load profile to be sent to the processor's support element. If this keyword is not used, the LOAD operations management command SA OS/390 sends to the support element has a CNAME operand with the Load profile name specified in the configuration dialogs. If this keyword is not used and no Load profile name was specified in the configuration dialogs, SA OS/390 omits the CNAME operand from the LOAD command sent to the support element. In this latter case, the support element uses its default Load profile.

profile_name

Indicates the name of the profile. IBM recommends that you let SA OS/390 select the profile name automatically rather than overriding SA OS/390's selection with the *profile_name* parameter.

XATIME

Specifies a time *<at or after>* which the associated command may begin processing. The time specified is determined by the OCF clock of the receiving support element.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

mo Specifies a month of the year, in 2 decimal digits, from 01 to 12.

dd Specifies a day of the month, in 2 decimal digits, from 01 to 31.

hh Specifies an hour of the day, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

If present, indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

The default, if XATIME is not explicitly stated, is for the command to be processed immediately.

When XATIME is not accompanied by an XBTIME, there is no end time by which command processing must be started.

XBTIME

Specifies a time *<at or before>* which the associated command must begin processing. A combination of XATIME and XBTIME specifies a "timing-window" within which processing is to be attempted.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

mo Specifies a month of the year, in 2 decimal digits, from 01 to 12.

dd Specifies a day of the month, in 2 decimal digits, from 01 to 31.

hh Specifies an hour of the day, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

Indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

When XBTIME is not accompanied by an XATIME, the command may be processed immediately.

INTERVAL

Indicates that the associated command is to be processed repeatedly. It specifies the time span between processing repetitions. The specified value is added to XATIME, XBTIME, or both (if both are present in the command), to determine the next processing time.

ddd

Specifies a number of days, in 3 decimal digits, from 000 to 048.

hh Specifies a number of hours, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

Notes:

1. The default, if INTERVAL is not explicitly stated, is one execution of the command.
2. INTERVAL is only valid if XATIME or XBTIME, or both, are also present in the command.
3. Within a given timing-window, there may be only one repetition of a command.

COUNT

Specifies the number of times, based on specified timing controls, that processing of an operations command should be attempted. Timing controls are provided through the combined use of the XATIME, XBTIME, INTERVAL, and COUNT operands.

count-of-intervals

Is a decimal value, from 1 to 65535. This value indicates the maximum number of times that processing is to be attempted and is decremented after each processing attempt. When the count has been decremented to zero, the request is removed from the timed list.

The default value, if COUNT is not explicitly stated, is for the timing-window interval to be repeated forever, or until canceled.

Use of the COUNT operand requires that INTERVAL, and a combination of either XATIME or XBTIME.

Defaults

The LOAD command defaults to CLEAR(NO) (this is the opposite of the default for the ISQXLOD command) and to FORCE(NO).

The *ipl_address*, *ipl_parameter*, and *cp_number* parameters default to the values defined in the configuration dialogs, unless they have been changed with the

LOAD

ISQVARS or ISQXOPT command, described on page 341, in which case the values defined by the ISQVARS or ISQXOPT command are used.

For OCF-based processors, the *ipl_address*, *ipl_parameter*, and *cp_number* parameters default to the values specified in the Load profile. You can find out these values by issuing the following command string:

```
ISQSEND target SC PROFILE OP(READ) TYPE(LOAD) CNAME(profile_name)
```

Usage

The LOAD common command performs almost the same function as the ISQXLOD command (described in *System Automation for OS/390 User's Guide*).

This common command assumes that the processor operations environment has been established and that the system console function has been assigned. For a target system operating on an LPAR-mode processor, it also assumes that the logical partition is active and that any required channels are online to the partition. If these assumptions are not correct, other initialization commands should be run first. These functions of the LOAD common command are all performed by the ACTIVATE common command (described in *System Automation for OS/390 User's Guide*), and the ISQXIPL command (described on page 331).

If you do not specify FORCE(YES), the LOAD common command checks to make sure it will not be disruptive by performing the following processing:

- If the target system runs in a logical partition and the same logical partition name is initialized to another target system in the same target hardware, the LOAD command is rejected and processing of the command halts.
- On a non-partitioned target system, if the target hardware has another target system initialized to it, the LOAD command is rejected and processing of the command halts.

Restrictions and Limitations

This command is not supported for coupling facility target systems.

The values for *cp_number* cannot exceed what is physically installed in the processor.

If you do not specify FORCE(YES), the LOAD common command is rejected if the addressed target system has a status of UNKNOWN, CLOSED, or IPL COMPLETE. To perform the load process for a target system that is in a status condition of UNKNOWN or CLOSED, issue the ACTIVATE common command (described on page 257). If the addressed target system has a status of IPL COMPLETE, you can specify FORCE(YES) to perform the IPL process without deactivating the target system first.

Return Codes

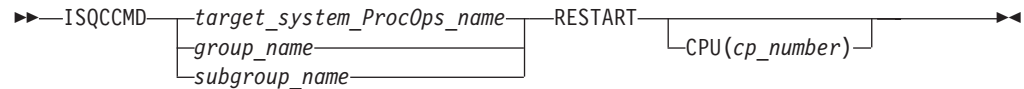
The ISQCCMD command (described on page 291) generates the return codes for common command processing.

RESTART

Purpose

The RESTART command causes the target system processor to perform the restart function. This function consists of loading the restart program status word (PSW).

Syntax



Requirements

Processor operations must be active for this command to complete successfully.

The addressed target system must be initialized for this command to complete successfully.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to “ISQCCMD” on page 291.

CPU

Indicates that a central processor is to be restarted.

cp_number

Specifies the central processor address.

Valid values are 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9. The *cp_number* variable is dependent on the type, model and configuration of the processor targeted. The following processors are supported: zSeries, 390-CMOS, 9021, 9121, 4381, 3090, and 308x.

No space is allowed between the keyword CPU and the left parenthesis.

Defaults

This command defaults to the current central processor on the addressed target hardware if a central processor is not specified. Depending on the processor, the current central processor may be the default specified on the processor’s OPRCTL panel.

For screen-oriented processors, you can find out this value by issuing the following command string:

```
ISQSEND target console F OPRCTL
ISQSEND target console #SCREEN 1 24
```

For OCF-based processors, you can find out this value by issuing the following command string:

```
ISQSEND target SC PROFILE OP(READ) TYPE(LOAD) CNAME(profile_name)
```

Usage

The RESTART command is normally used to return the processor to an active processing state from a QUIESCE or SHUTDOWN condition.

The RESTART command can also be used to recover from various system problems.

RESTART

Restrictions and Limitations

- This command is not supported on 4381 processors or for coupling facility target systems.
- The values for the CPU keyword cannot exceed what is physically installed in the processor.

Return Codes

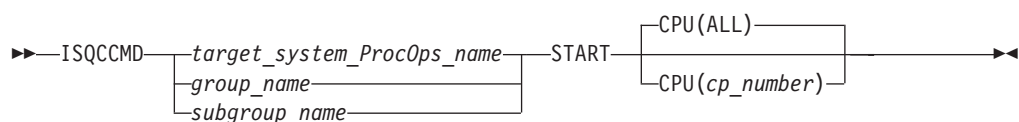
The ISQCCMD command (described on page 291) generates the return codes for common command processing.

START

Purpose

The START command causes the target system processor to perform the start function. This function consists of returning the operating system to the operating state from the stopped state initiated by the STOP command.

Syntax



Requirements

Processor operations must be active for this command to complete successfully.

The addressed target system must be initialized for this command to complete successfully.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to "ISQCCMD" on page 291.

CPU(ALL)

Specifies all central processors are to be started. This is the default. No space is allowed between the keyword CPU and the left parenthesis.

CPU(*cp_number*)

Specifies the number of the central processor to be started.

Valid values are 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9. The *cp_number* variable is dependent on the type, model and configuration of the processor targeted. The following processors are supported: zSeries, 390-CMOS, 9021, 9121, 4381, 3090, and 308x.

No space is allowed between the keyword CPU and the left parenthesis.

Defaults

The START command defaults to CPU(ALL).

Usage

The START command is equivalent to pressing the START key at a target system.

Use the START command to cancel the effects of the STOP command and allow the operating system to run again.

Restrictions and Limitations

- The CPU keyword is not supported for 4381 processors (other than specifying the default value of ALL).
- The values for the CPU number cannot exceed what is physically installed in the processor.
- This command is not supported for coupling facility target systems.

Return Codes

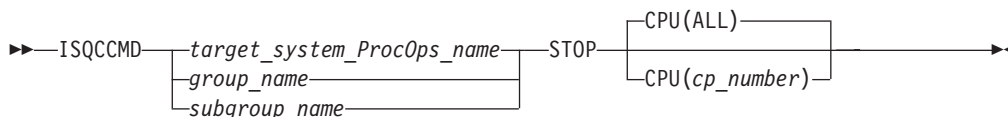
The ISQCCMD command (described on page 291) generates the return codes for common command processing.

STOP

Purpose

The STOP command causes the target system processor to perform the stop function. This function consists of placing the processor in the stopped state at the end of the current unit of operation.

Syntax



Requirements

Processor operations must be active for this command to complete successfully.

The addressed target system must be initialized for this command to complete successfully.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to "ISQCCMD" on page 291.

CPU(ALL)

Specifies that all central processors are to be stopped. This is the default. No space is allowed between the keyword CPU and the left parenthesis.

CPU(*cp_number*)

Specifies the number of the central processor to be stopped.

Valid values are 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9. The *cp_number* variable is dependent on the type, model and configuration of the processor targeted. The following processors are supported: zSeries, 390-CMOS, 9021, 9121, 4381, 3090, and 308x.

No space is allowed between the keyword CPU and the left parenthesis.

Defaults

The STOP command defaults to CPU(ALL).

STOP

Usage

Use the STOP command to temporarily halt normal operations. You can use this command to interrupt processing to perform various hardware maintenance functions (such as cleaning the heads of a tape drive) and then continue processing from the point at which it stopped.

Restrictions and Limitations

- The CPU keyword is not supported for 4381 processors (other than specifying the default value of ALL).
- The values for the CPU keyword cannot exceed what is physically installed in the processor.
- This command is not supported for coupling facility target systems.

Return Codes

The ISQCCMD command (described on page 291) generates the return codes for common command processing.

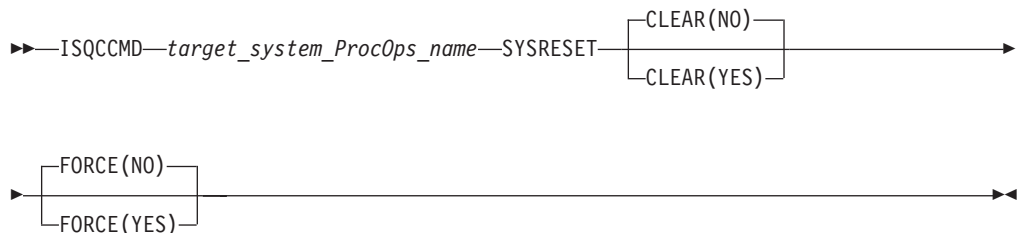
SYSRESET

Purpose

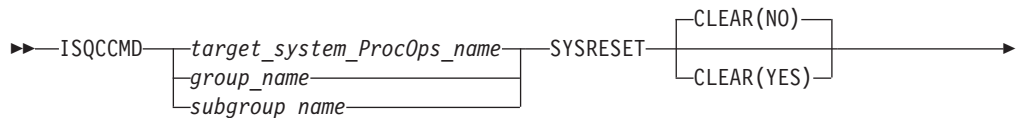
The SYSRESET command causes the target system processor to perform the system reset function. This function consists of resetting and initializing the processor.

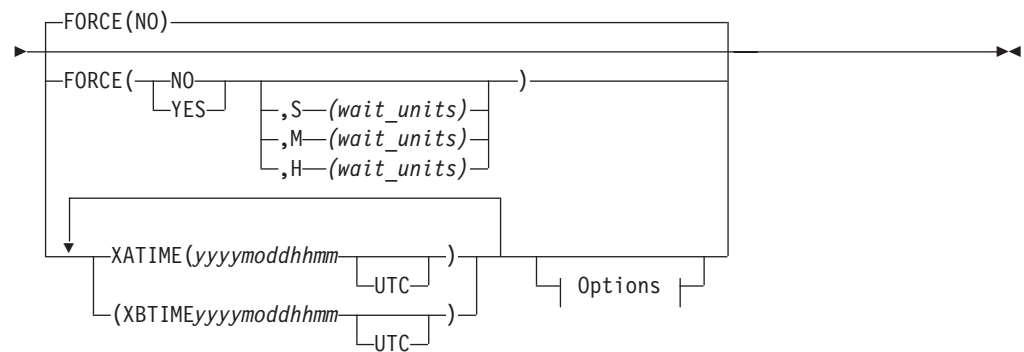
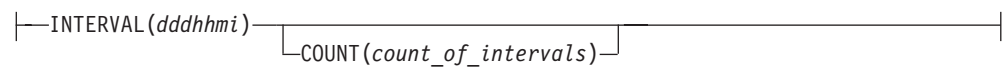
Syntax

For screen-oriented processors and OCF-based processors



For OCF-based processors



**Options:****Requirements**

Processor operations must be active for this command to complete successfully.

The addressed target system must be initialized for this command to complete successfully.

Parameters

For a definition of *target_system_ProcOps_name*, *group_name*, and *subgroup_name*, refer to “ISQCCMD” on page 291.

CLEAR(NO)

Indicates that the option of clearing storage is not being specified. This is the default value. No space is allowed between the keyword CLEAR and the left parenthesis.

CLEAR(YES)

Indicates that the option of clearing storage is being specified. No space is allowed between the keyword CLEAR and the left parenthesis.

FORCE

Requests conditional processing of commands that are disruptive to the operating system control program and application work that is in progress. Use of this operand is based on the operating state of the target processor.

NO

Specifies that processing of the command is to continue *only* if the target CPU control program is not in the operating state. Specify FORCE(NO) in a situation where you would *not* want to upset the control program work-in-progress.

YES

Specifies that processing of the command is to continue *even* if the target CPU control program is in the operating state. Specify FORCE(YES) in a situation where disruption of the control program work-in-progress is not important, such as in recovery situations.

S Specifies that the time-out value is measured in seconds.

SYSRESET

M Specifies that the time-out value is measured in minutes.

H specifies that the time-out value is measured in hours.

wait-units

Specifies an optional time-out value in 1-to-5 decimal digits, ranging from 0 to 65535. This value provides the OCF with an interval for delaying the acceptance of, or rejection of, the command. The presence of this value in the operand causes the OCF to signal a quiesce event to the operating system control program, for those operating systems that support this action.

A time-out value is only allowed on timed command requests.

When a time-out value is specified with FORCE(NO), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(NO) with no time-out value.

When a time-out value is specified with FORCE(YES), the associated command is held pending until the control program enters a quiesced state, or until the time-out value expires. If the time-out value expires, the command is treated as a FORCE(YES) with no time-out value.

The default, if FORCE is not explicitly stated, is FORCE(NO).

FORCE(NO) requires that the associated command *fail* when useful work is taking place. For SYSRESET the formal fail criteria is *operating* when FORCE(NO) is specified or when FORCE defaults to NO. The command will fail whenever the processor is in this state.

XATIME

Specifies a time *<at or after>* which the associated command may begin processing. The time specified is determined by the OCF clock of the receiving support element.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

mo Specifies a month of the year, in 2 decimal digits, from 01 to 12.

dd Specifies a day of the month, in 2 decimal digits, from 01 to 31.

hh Specifies an hour of the day, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

If present, indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

The default, if XATIME is not explicitly stated, is for the command to be processed immediately.

When XATIME is not accompanied by an XBTIME, there is no end time by which command processing must be started.

XBTIME

Specifies a time *<at or before>* which the associated command must begin

processing. A combination of XATIME and XBTIME specifies a “timing-window” within which processing is to be attempted.

yyyy

Specifies a year, in 4 decimal digits. It must be greater than 1988.

mo Specifies a month of the year, in 2 decimal digits, from 01 to 12.

dd Specifies a day of the month, in 2 decimal digits, from 01 to 31.

hh Specifies an hour of the day, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

UTC

Indicates that the time is coordinated universal time.

The system must be power-on reset in LPAR mode before sending a scheduled request for a secondary OCF. If it is not, the request is rejected.

When XBTIME is not accompanied by an XATIME, the command may be processed immediately.

INTERVAL

Indicates that the associated command is to be processed repeatedly. It specifies the time span between processing repetitions. The specified value is added to XATIME, XBTIME, or both (if both are present in the command), to determine the next processing time.

ddd

Specifies a number of days, in 3 decimal digits, from 000 to 048.

hh Specifies a number of hours, in 2 decimal digits, from 00 to 23.

mi Specifies a number of minutes, in 2 decimal digits, from 00 to 59.

Notes:

1. The default, if INTERVAL is not explicitly stated, is one execution of the command.
2. INTERVAL is only valid if XATIME or XBTIME, or both, are also present in the command.
3. Within a given timing-window, there may be only one repetition of a command.

COUNT

Specifies the number of times, based on specified timing controls, that processing of an operations command should be attempted. Timing controls are provided through the combined use of the XATIME, XBTIME, INTERVAL, and COUNT operands.

count-of-intervals

Is a decimal value, from 1 to 65535. This value indicates the maximum number of times that processing is to be attempted and is decremented after each processing attempt. When the count has been decremented to zero, the request is removed from the timed list.

The default value, if COUNT is not explicitly stated, is for the timing-window interval to be repeated forever, or until canceled.

Use of the COUNT operand requires that INTERVAL, and a combination of either XATIME or XBTIME.

SYSRESET

Defaults

The SYSRESET command defaults to FORCE(NO) and to CLEAR(NO).

Usage

Issue SYSRESET to recover a processor from a machine stop condition. This command places the processor into the operating state from the check-stop state.

If you do not specify FORCE(YES), the SYSRESET command checks to make sure it will not be disruptive by performing the following processing:

- If the target system runs in a logical partition and the same logical partition name is initialized to another target system in the same target hardware, the SYSRESET command is rejected and processing of the command halts.
- On a non-partitioned target system, if the target hardware has another target system initialized to it, the SYSRESET command is rejected and processing of the command halts.

Restrictions and Limitations

This command is not supported for coupling facility target systems.

Return Codes

The ISQCCMD command (described on page 291) generates the return codes for common command processing.

Host-based Commands

GETSPCFP

Purpose

The GETSPCFP command gains or regains the active system console for the target hardware identified by an LU name.

Syntax

```
▶▶ GETSPCFP [netid] luname ▶▶
```

netid

The network name where the LU name is defined

luname

The LU name of the target hardware

Restrictions and Limitations

The GETSPCFP command can only be used when SA OS/390 is fully initialized.

ISQCCMD

Purpose

The ISQCCMD command issues a common command.

Syntax

```
▶▶ ISQCCMD [target_system_ProcOps_name] [group_name] [subgroup_name] [target_hardware_name] common_command ▶▶
```

Requirements

Processor operations must be active.

The addressed target system must be initialized unless the specified common command is ACTIVATE (described on page 257).

Parameters

target_system_ProcOps_name

Is the processor operations name of the target system.

ISQCCMD

group_name

Is the name of the group of which subgroup(s) and target system(s) are members.

subgroup_name

Is the name of the subgroup of which the target system(s) are members.

target_hardware_name

Is the name of the target hardware definition associated with the target system.

common_command

Represents the common command and any associated parameters to be processed. Multiple parameters are separated from each other by a blank space.

Defaults

None.

Usage

Use the ISQCCMD command to issue a common command to the specified target system.

Restrictions and Limitations

- *Target_hardware_name* is valid only for the common command DEACTIVATE.
- *Group_name* or *subgroup_name* must be processor operations-enabled as defined in the SA OS/390 customization dialogs to be a valid parameter.

Return Codes

- | | |
|----|---|
| 4 | Command processing has been accepted. |
| 8 | Command processing has been rejected. |
| 12 | Command processing has failed. |
| 32 | The processor operations environment does not exist; the ISQCCMD command was not processed. |

ISQCMON

Purpose

The ISQCMON command causes the current NetView task to be added to or removed from the list of tasks to receive processor operations communications management messages. These messages deal with the communications between the focal-point system and its processor operations PC connections and are not necessarily specific to any one target system.

Syntax



Requirements

None.

Parameters

ON

Adds the current NetView task to the list of tasks to receive processor operations communications management messages. This is the default.

OFF

Removes the current NetView task from the list of tasks to receive processor operations communications management messages.

Defaults

ISQCMON defaults to ON, adding you to the list.

Usage

You can issue ISQCMON when processor operations is not running to add or delete yourself from the interested operators list for messages relating to the control of processor operations-managed resources. These messages are not associated with a specific target system.

Messages not associated with a specific target system are sent only to operators who used ISQCMON to place themselves on the interested operators list for such messages. These messages are not sent to the ISQXMON interested operator list. You are automatically added to the ISQCMON interested operator list when you issue the ISQSTART command (described on page 301).

Refer to *System Automation for OS/390 User's Guide* for further information about these two types of messages and interested operator lists.

Restrictions and Limitations

Do not issue this command with ISQEXEC.

Return Codes

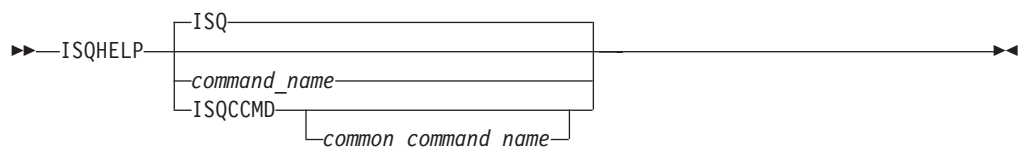
- 0 The ISQCMON command completed successfully.
- 8 You used incorrect command syntax.

ISQHELP

Purpose

The ISQHELP command provides help on using processor operations commands.

Syntax



Requirements

The NetView program must be running for this command to complete successfully.

ISQHELP

Parameters

ISQ

Indicates the processor operations Main Help Panel is being requested. Not specifying any parameters with the ISQHELP command also presents the processor operations Main Help Panel.

command_name

Is the name of any parameter with which you need help. This can be a processor operations host-based or any parameter valid to the NetView help processor.

ISQCCMD

Indicates that the variable following it is the name of a common command.

common_command_name

Is the name of the common command for which you want help; only the first 3 characters of the common command need to be specified.

Defaults

The processor operations Main Help Panel.

Usage

The ISQHELP command does not require the processor operations environment.

Issue the ISQHELP command to obtain high-level information about processor operations, to obtain help about the syntax of a processor operations command, to obtain help with the output generated by the command, or to see examples of using the command.

Refer to *System Automation for OS/390 User's Guide* for further information on the ISQHELP command and for a description of other help functions.

Restrictions and Limitations

The ISQHELP command cannot be issued from a program.

Return Codes

Return codes are not applicable because the ISQHELP command cannot be issued from a program.

ISQOVRD

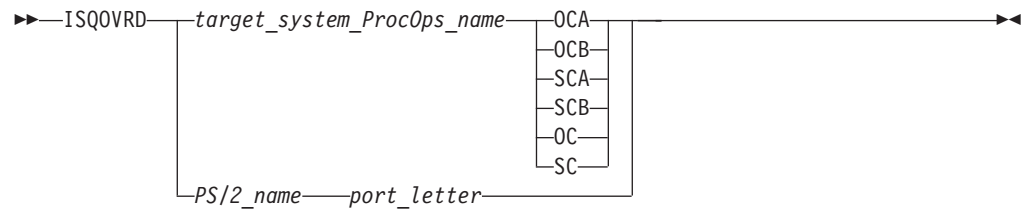
Purpose

The ISQOVRD command unconditionally removes a target console lock.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designation, the other way is to specify the PC name and port letter.

Specifying the PC name and port letter is not recommended and is supported only for migration from ISCF.



Requirements

The requirements for this command to complete successfully are:

- The use of this command usually requires special authorization.
- Processor operations must be active.
- The *target_system_ProcOps_name* syntax requires that the addressed target system be initialized.
- The *PS/2_name* syntax requires that the addressed port be associated with a target system that has been initialized.

Parameters

target_system_ProcOps_name

Is the name of the target system.

OCA

Specifies the active operator console (not valid for the coupling facility).

OCB

Specifies the backup operator console (not valid for the coupling facility).

SCA

Specifies the active system console.

SCB

Specifies the backup system console (not valid for a NetView connection).

OC

Specifies the active operator console (not valid for the coupling facility).

SC

Specifies the active system console

PS/2_name

Is the name of the processor operations PC.

port_letter

Is the 1-character port ID for the console.

Defaults

None.

Usage

The ISQOVRD command removes the console lock established by any command or automation procedure.

This command is intended to be used for emergencies only. Overriding a reserve can cause processing to fail, with unpredictable results.

ISQOVRD

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- This command does not establish a console lock for the issuing operator, it simply removes the lock on the console.
- This command does not interrupt or cancel any command or automation procedure currently running.

Return Codes

- 0 The ISQOVRD command completed successfully; the lock has been removed.
- 4 You used syntax that is not valid, specified a target system name that is not valid, specified a PC name that is not valid, specified a PC port that is not valid, or specified a target system that is not initialized.
- 8 A NetView CNMLOCK service problem occurred.
- 32 The processor operations environment does not exist; the ISQOVRD command was not processed.

ISQSEND

Purpose

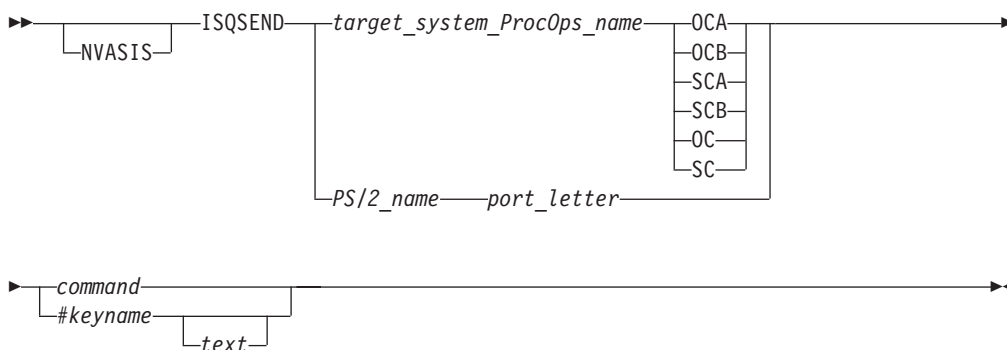
The ISQSEND command sends a command to a processor operations PC or target system, allows you to enter a console command (for automation), or simulates the pressing of a console key at a target system.

Note: This is an Application Programming Interface.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designation, the other way is to specify the PC name and port letter.

Specifying the PC name and port letter is not recommended. It is supported only for migration from ISCF, and not for NetView connections.



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.

- The *target_system_ProcOps_name* syntax requires that the addressed port be associated with a target system that has been initialized.
- For a PC path, the port must not be locked (unless the holder of the lock is the current task).

Parameters

target_system_ProcOps_name

Is the name of the target system.

OCA

Specifies the active operator console.

OCB

Specifies the backup operator console.

SCA

Specifies the active system console.

SCB

Specifies the backup system console (not valid for NetView connections).

OC

Specifies the active operator console.

SC

Specifies the active system console.

PS/2_name

Is the name of the processor operations PC.

port_letter

Is the 1-character port ID for the console.

command #keyname text

Specify either a command or the name of a console key followed by optional text.

command

Is the command to be processed and any parameters associated with that command. For target systems attached through a processor operations PC, it may be any command. These include processor commands, screen handler commands, a service language commands, and operating system commands. For OCF-based target systems, use the ISQSEND command to send operating system commands and operations management commands, such as PROFILE. If you want to pass the command text in lower or mixed case, prefix the ISQSEND command with NETVASIS.

For further information, refer to *S/390 Managing your Processors*.

#keyname

Is one of the key names listed in Table 5. This is the name of a console key to simulate pressing at the target system. The name of the console key (*keyname*) must always be preceded by the pound sign (#).

text

Can be used with only some of the keys (see Table 5 on page 298). It provides the text string to be written into the current input field before the specified key is pressed.

Defaults

None.

ISQSEND

Usage

For target systems attached through a processor operations PC, both Service Language Commands (SLCs) and operating system commands can be entered through ISQSEND. For MVS target systems running on OCF-based processor, operating system commands can be entered through ISQSEND. These commands can be transmitted to MVS through console integration. To send commands to a target system, you can specify one of the following:

- Target system name and console
- Processor operations PC name and port

For all target systems supported through the processor operations PC, IBM recommends that you specify the target system name and console. The PC name and port letter operands are supplied to allow migration of automation code written for the ISCF licensed program.

To issue a screen handler command to be processed by the processor operations PC rather than by a target system, issue the command to the appropriate PC screen handler port and precede the name of the command with the pound sign (#). To issue processor commands normally preceded by the # symbol, precede the # with another # symbol. Look at “General Information” on page 253 for more information regarding the use of the #.

To issue a target system command or Service Language Command (SLC) which is normally preceded by a pound sign (#), precede the # with another #. For example, ISQSEND TARGET1 OC ##CP is equivalent to entering #CP at the operator console of the target system named TARGET1.

Functions simulated by pressing a console key can be sent only from the active console. The name of the console key (*keyname*) must always be preceded by the pound sign (#). Table 5 shows the key functions that SA OS/390 can simulate pressing.

Caution: Because key functions are processed immediately, use them with caution.

You should not normally use the Clear key because it may interfere with screen handler management and cause the loss of messages.

In Table 5, a v means the key command is valid for the item identified at the top of the column; a dash (—) means it is not valid. The column labeled GAs is the General Asynchronous (GASYNC) screen handler that is supported only for TPF. The column labeled OS applies to the operating systems MVS, VM, VSE, and TPF.

Note: For the consoles of OCF-based target systems, this key chart is not applicable. For OCF-based processor, ISQSEND supports the operations management commands not supported by the ISQCCMD command.

Table 5. Key Name and Console Type Cross-Reference

Key Name	SYS9021	SYS9121	SYS3090	SYS4381	SYS308x	GAs	OS
¹ These keys must be preceded by the # sign to designate a key rather than a Service Language Command (SLC).							
ASSIGN	v	v	v	—	—	—	—
ATTN	—	—	—	—	v	—	—
Backtab	v	v	v	v	v	—	v
BKWD	v	v	v	v	v	—	—

Table 5. Key Name and Console Type Cross-Reference (continued)

Key Name	SYS9021	SYS9121	SYS3090	SYS4381	SYS308x	GAs	OS
¹ These keys must be preceded by the # sign to designate a key rather than a Service Language Command (SLC).							
CHGDply	—	—	—	v	—	—	—
CLear	v	v	v	—	v	—	v
CMD [text]	—	—	—	—	v	—	—
CNCL	v	v	v	—	—	—	—
Copy	—	—	—	v	—	—	—
DMSGBkwd	—	—	—	—	v	—	—
DMSGFwd	—	—	—	—	v	—	—
END	v	v	v	—	—	—	—
Enter [text]	v	v	v	v	v	v	v
FWD	v	v	v	v	v	—	—
Home	v	v	v	v	v	—	v
INdex	v	v	v	—	—	—	—
INTR	—	—	—	v	—	—	—
IRPT [text] ¹	v	v	v	—	v	—	—
ISTEP	v	v	v	—	—	—	—
LEFT	v	v	v	—	—	—	—
MODEsel	—	—	—	v	—	—	—
Msg [text]	—	—	—	—	v	—	—
PA1 [text]	—	—	—	v	—	—	v
PA2 [text]	—	—	—	v	—	—	v
PF1 [text]	—	—	—	v	—	—	v
PF2 [text]	—	—	—	v	—	—	v
PF3 [text]	—	—	—	v	—	—	v
PF4 [text]	—	—	—	v	—	—	v
PF5 [text]	—	—	—	v	—	—	v
PF6 [text]	—	—	—	v	—	—	v
PF7 [text]	—	—	—	v	—	—	v
PF8 [text]	—	—	—	v	—	—	v
PF9 [text]	—	—	—	v	—	—	v
PF10 [text]	—	—	—	v	—	—	v
PF11 [text]	—	—	—	v	—	—	v
PF12 [text]	—	—	—	v	—	—	v
PF13 [text]	—	—	—	—	—	—	v
PF14 [text]	—	—	—	—	—	—	v
PF15 [text]	—	—	—	—	—	—	v
PF16 [text]	—	—	—	—	—	—	v
PF17 [text]	—	—	—	—	—	—	v
PF18 [text]	—	—	—	—	—	—	v
PF19 [text]	—	—	—	—	—	—	v

ISQSEND

Table 5. Key Name and Console Type Cross-Reference (continued)

Key Name	SYS9021	SYS9121	SYS3090	SYS4381	SYS308x	GAs	OS
¹ These keys must be preceded by the # sign to designate a key rather than a Service Language Command (SLC).							
PF20 [text]	—	—	—	—	—	—	v
PF21 [text]	—	—	—	—	—	—	v
PF22 [text]	—	—	—	—	—	—	v
PF23 [text]	—	—	—	—	—	—	v
PF24 [text]	—	—	—	—	—	—	v
PRINT	v	v	v	—	v	—	v
PRCAN	—	v	—	—	—	—	—
REFresh	v	v	v	—	v	—	—
Reset	v	v	v	v	v	—	v
RESTART [text] ¹	v	v	v	—	v	—	—
RIGHt	v	v	v	—	—	—	—
START [text] ¹	v	v	v	v	v	—	—
START Target	—	—	—	v	—	—	—
STOP [text] ¹	v	v	v	v	v	—	—
STOP Target	—	—	—	v	—	—	—
SVPCE	v	—	v	—	—	—	—
SYSreq [text]	—	—	—	—	—	—	v
SWAPCons	v	v	v	—	—	—	—
Tab	v	v	v	v	v	—	v
TEST	v	v	v	—	—	—	v
TOD	v	v	v	—	v	—	—
VIEWlog	v	v	v	—	—	—	—
XOFF	—	—	—	—	—	v	—
XON	—	—	—	—	—	v	—

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- The ISQSEND command is the only way to send data to a PC, or to a console. The information passed to the PC or target console is not interpreted by SA OS/390. The information passed to the PC, or target console is not acted upon by SA OS/390. For example, if ISQSEND is used to vary a channel (CHPID) offline, the SA OS/390 status system will not know about it. You should use SA OS/390 commands for such functions.
- Be careful using Reset. Some of the SA OS/390 distributed feature code checks only for the disappearance of the X SYSTEM status message before continuing. Both the RESET command and the #SUPERRESET command clear this status indicator (but not the condition).

Return Codes

Return codes do not indicate whether messages were generated. You may receive an error message from the PC some time after the ISQSEND command completes

ISQSTART

indicates which, if any, target systems and processor operations PCs should be initialized (not the IPL process), and indicates system console assignment for each target system.

In addition to starting processor operations initially, an initial start lets you change the processor operations configuration, by specifying a different data set name. (During installation, the installer may have gone through the configuration dialogs several times defining multiple processor operations configurations and generating a different control file for each.) To change the processor operations configuration, use the ISQSTOP command to stop processor operations before issuing the ISQSTART command with the data set name to initiate the initial start.

You usually do a restart after a processor operations task has failed to restart all processor operations tasks to re-establish the processor operations tasking environment. If the processor operations environment has not already been established by a previous ISQSTART command that specified a data set name, then the restart will fail.

When you issue ISQSTART, it adds you to the interested operators list accessed by the ISQCMON command. This list is for messages not associated with a specific target system. The messages relate to the control of processor operations-managed resources.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- A restart re-establishes the previous configuration. The processor operations environment must exist (an initial start must have already been performed) before a restart can be performed.
- Processor Operations must be stopped before an initial start can be performed.
- The *data_set_name* cannot be DEBUG.
- The specified *data_set_name* must be a sequential data set.
- The DEBUG parameter is restricted to IBM service use only.

Return Codes

- | | |
|---|-------------------------------------|
| 0 | Command accepted. |
| 4 | You used incorrect syntax. |
| 8 | An internal command error occurred. |

ISQSTOP

Purpose

The ISQSTOP command stops processor operations. It can be issued in an automation routine.

Syntax

►► ISQSTOP [DEBUG] ◀◀

Requirements

You may require special authorization to use this command.

Processor operations must be active.

Parameters

DEBUG

Provides additional diagnostics, which are written to the NetView log.

Defaults

None.

Usage

The ISQSTOP command immediately stops the processor operations environment and all processor operations tasks. If you do not have the shutdown of processor operations automated via SA OS/390, issue ISQSTOP and ISQSTART as part of normal shutdown procedures to restart failed processor operations tasks or to establish a new operating environment (see the ISQSTART command).

Restrictions and Limitations

The ISQSTOP command does not shut down target systems.

All current processor operations status information is lost when you issue ISQSTOP. You should exit any displays presented by the ISQXDST, ISQXOPT, or ISQTCC commands before stopping processor operations.

Return Codes

- 0 The ISQSTOP command completed successfully.
- 4 You used incorrect syntax.
- 8 An internal command error occurred.
- 32 The processor operations environment does not exist; the ISQSTOP command was not processed.

ISQSWTCH

Purpose

The ISQSWTCH command switches the active and backup console assignment. This command is not valid for NetView connection paths.

Syntax

```

▶▶ ISQSWTCH target_system_ProcOps_name OC SC
           PS/2_name port_letter

```

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designation, the other way is to specify the PC name and port letter.

ISQSWTCH

Note: Specifying the PC name and port letter is not recommended and is supported only for migration from ISCF.

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The *target_system_ProcOps_name* syntax requires that the addressed target system be initialized.
- The *PS/2_name* syntax requires that the addressed port be an active or backup console for a target system that has been initialized.
- A backup console must be defined or this command will fail.
- The consoles must not be locked by another task.

Parameters

ProcOps_name

Is the name of the target system.

OC

Specifies the operator console (not valid for the coupling facility).

SC

Specifies the system console.

PS/2_name

Is the name of the processor operations PC.

port_letter

Is the 1-character port ID for the console.

Defaults

None.

Usage

ISQSWTCH reverses the active and backup console designations for the addressed target system. The ISQSWTCH command disables messages from the new backup port and enables messages from the new active port. (You can use the ISQXOPT and ISQXDST commands to determine the active and backup consoles.)

Restrictions and Limitations

The ISQSWTCH command:

- Disables the new backup port so it cannot send messages to the focal-point system
- Does not assign the appropriate console function
- Is not applicable to NetView connections

Return Codes

- | | |
|----|---|
| 0 | The ISQSWTCH command completed successfully. |
| 2 | Either you used incorrect command syntax, specified a target system that was not initialized, or specified a PC control port or focal-point port. |
| 4 | A problem occurred during the processing of the ISQSEND command. |
| 6 | The specified port was not initialized. |
| 8 | There is no backup console. |
| 14 | The console is locked by another task. |

- 16 An internal error occurred.
- 32 The processor operations environment does not exist; the ISQSWTCH command was not processed.

ISQTCC

Purpose

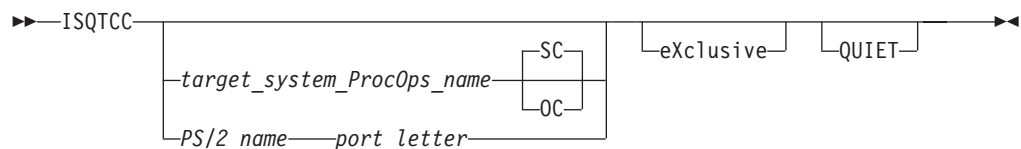
The ISQTCC command establishes a pass-through session between the current operator station task (OST) and a specific target system, lets you display the status of a specific communications session, and lets you change a specific communications session.

Note: For NetView connections, DCAF provides remote manual operations.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designation, the other way is to specify the PC name and port letter.

Specifying the PC name and port letter is not recommended. It is supported only for migration from ISCF.



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The Communications Manager software must be running correctly in the processor operations PC through which the pass-through session is to be established.
- The *target_system_ProcOps_name* and console designation or *PS/2_name port_letter* syntax require that the addressed target system or port be initialized.
- The designated console at the target system must be defined in the configuration dialogs as either a Model 2 or a 3205 console. Otherwise the ISQTCC command is not accepted.

Parameters

target_system_ProcOps_name

Is the name of the target system. These keywords designate the target console.

SC

Specifies the active system console. This is the default.

OC

Specifies the active operator console.

eXclusive

Establishes exclusive access to the console by locking the console and disabling

ISQTCC

the port to prevent the lock from being overridden. The lock is released and the port enabled when you exit the pass-through session. This keyword also turns off message automation. This keyword can be abbreviated to *X*.

QUIET

Suppresses message traffic for the duration of the ISQTCC command processing.

Note: The message traffic is suppressed only after 10 minutes have been spent in pass-through. If you exit pass-through before the 10 minutes have passed, you will see all the message traffic that you would have seen had you not entered pass-through.

PS/2_name

Is the name of the processor operations PC.

port_letter

Is the 1-character port ID for the console.

Defaults

This command has the following defaults:

- The console designator defaults to the system console.
- The escape key defaults to PF12.
- The screen update delay defaults to the value specified in the configuration dialogs. If no default is specified in the dialogs, the default is 0 seconds (no delay).
- If no parameters are specified, a list of available target system destinations is displayed.

Usage

Use the ISQTCC command to:

- Monitor status and message counts
- Control communications sessions and timing values
- Establish a pass-through session to a console at a target system

The ISQTCC command might provide a more efficient method of performing a sequence of commands at a target system because you can enter the commands as if you were at the console at the target system, and because you will immediately see the results of each command without any messages from other systems cluttering the screen.

Note: The message traffic is suppressed only after 10 minutes in pass-through have passed. If you exit pass-through before the 10 minutes have passed, you will see all the message traffic that you would have seen had you not entered pass-through.

The ISQTCC command does not disable normal message and command traffic to the specified console unless you specify *eXclusive*.

Specifying the *eXclusive* keyword does a *DISABLE ** command. This provides exclusive access to the console from pass-through mode to ensure serialization of commands. The lock is released and the port is enabled automatically when you exit pass-through mode.

Refer to *System Automation for OS/390 Programmer's Reference* for a description of the #DISABLE command.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- The ISQTCC command cannot be issued from a program.
- For NetView connections, the functions of the ISQTCC command are performed by DCAF.
- This command must be issued from a NetView operator task (OST).
- The ISQTCC command provides a remote console escape facility outside the scope of normal processor operations operations. The information passed to or from the target console using this pass-through facility is not acted upon by processor operations (but message monitoring and message automation continue unless you specify the eXclusive keyword). For example, if you perform an initial program load for a target system through the pass-through facility, the processor operations status system will not know about it.
- The pass-through function is restricted to 3270 Model 2 or 3205 consoles only. This restriction applies to the consoles at the focal-point system as well as at the target system. This is not a hardware restriction because Model 4 consoles can display Model 2 panels; it is a restriction on the type and format of information displayed.
- Only one operator at a time can have a pass-through session to a specific target console.
- You cannot establish a pass-through connection to the operator console of a VSE target system operating in the unattended node support mode.
- If you use *PS/2_name port_letter* syntax, the port must be the active port.

Return Codes

Return codes are not applicable to the ISQTCC command because it cannot be issued from a program.

ISQXACT

Purpose

The ISQXACT command activates the required logical partition for a specified target system.

Note: For OCF-based processors, use the ACTIVATE common command rather than ISQXACT.

Syntax

```
▶▶—ISQXACT—target_system_ProcOps_name—comment—▶▶
```

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The processor operations PC must be active.

ISQXACT

- The system console function must have been assigned.
- The system console must not be locked by another task.
- The addressed target system must be initialized and associated with target hardware operating in LPAR mode.

Parameters

target_system_ProcOps_name

Is the name of the target system. It is a required parameter and must be a valid target system name.

comment

Treats any argument that follows the target system name as a comment.

Defaults

None.

Usage

The ISQXACT command activates the required logical partition for the addressed target system, with the logical partition's current definition, at the 9021, 9121, or 3090™ processor. If you have changed the definition of the desired partition parameters using either ISQXOPT or ISQVARS, issue the ISQXPAR command (described on page 345) to set the definition at the processor before issuing the ISQXACT command. No action is taken if the partition is already active.

The ISQXACT command uses the configuration dialog definition for the specified target system to determine the name of the logical partition to activate.

The ISQXACT command can be issued by an operator, by the ISQXIPL command (described on page 331), or by an automation procedure.

The ISQXACT command is called by ISQXIPL if the partition is inactive. This way, a valid inactive partition is automatically activated.

Restrictions and Limitations

The ISQXACT command is valid for logically partitioned 9021, 9121, and 3090 processors only.

Return Codes

- | | |
|----|---|
| 0 | The ISQXACT command completed successfully, no errors occurred activating the logical partition. |
| 1 | The partition was already active, no action was taken by ISQXACT. |
| 2 | You either used incorrect syntax, specified an incorrect target system name, or specified a target system that was not initialized. |
| 4 | Internal error. |
| 6 | The target system is not in LPAR mode. |
| 8 | A problem occurred during the processing of the ISQSEND command. |
| 9 | Communications task not active. |
| 10 | The console was locked by another task. |
| 16 | The specified target system is on invalid hardware. |
| 18 | There was a problem with the 9021, 9121, or 3090 ACTLP SLC command. |
| 20 | There was a problem with the 9021, 9121, or 3090 FRAME LPDEF SLC command. |
| 28 | There was a problem with an internal NetView CNMCOMMAND service. |

- 32 The processor operations environment does not exist; the ISQXACT command was not processed.

ISQXASN

Purpose

The ISQXASN command assigns the target hardware system console function to the processor operations active system console port.

Note: The ISQXASN command is not applicable for OCF-based processors.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name; the other way is to specify the PC name and port letter.

Note: Specifying the PC name and port letter is not recommended and is supported only for migration from ISCF.

```

▶▶ ISQXASN [target_system_ProcOps_name | PS/2_name port_letter]

```

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The processor operations PC must be active.
- The *target_system_ProcOps_name* syntax requires that the addressed target system be initialized.
- The system console must not be locked by another task.
- The *PS/2_name* syntax requires that the addressed port be the active system console port.

Parameters

target_system_ProcOps_name
Is the name of the target system.

PS/2_name
Is the name of the processor operations PC.

port_letter
Is the 1-character port ID for the console.

Usage

Use the ISQXASN command to assign the target hardware system console function to the processor operations active system console port.

Restrictions and Limitations

This command is supported only for 9021, 9121, or 3090 system consoles.

The *PS/2_name* format is valid only for the active system console port.

ISQXASN

Return Codes

- | | |
|----|---|
| 0 | The ISQXASN command completed successfully, the console was successfully assigned. |
| 1 | The console was already assigned, no action was taken by ISQXASN. |
| 2 | You either used incorrect syntax, specified an incorrect target system name, or specified a target system that was not initialized. |
| 4 | An internal error occurred. |
| 8 | A problem occurred during the processing of the ISQSEND command. |
| 9 | Communications task not active. |
| 10 | The addressed console is locked by another task or an error occurred during the processing of the ISQXLOC command. |
| 14 | The specified console is not a system console. |
| 16 | The specified target system is not a 9021, 9121, or 3090 processor. |
| 18 | A problem occurred during the processing of the 9021, 9121, or 3090 ASSIGN key. ASSIGN |
| 20 | A problem occurred during the processing of the 9021, 9121, or 3090 TAKESYS SLC. |
| 22 | A problem occurred during the processing of the 9021, 9121, or 3090 END key. |
| 24 | There was a problem with the contents of the 9021, 9121, or 3090 processor screen. |
| 28 | There was a problem with internal NetView CNMCOMMAND service. |
| 32 | The processor operations environment does not exist; the ISQXASN command was not processed. |

ISQXCFC

Purpose

The ISQXCFC command configures a channel offline from a basic-mode target system.

Note: The ISQXCFC command is not supported for 4381 and System/390® microprocessor cluster processors.

Syntax

►►—ISQXCFC—*chpid_number*—FOR—*target_system_ProcOps_name*—►►

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The addressed target system must not be associated with target hardware running in LPAR mode.
- The system console must not be locked by another task.

Parameters

chpid_number

Is the channel path that is to be freed. This is a required parameter and must be a 2-character hexadecimal value (such as 0B).

FOR

Indicates that the variable following it is the name of the target system whose channel is to be configured offline.

target_system_ProcOps_name

Is the name of the target system. This is a required parameter, must be a valid target system, and must be preceded by the FOR keyword.

Defaults

None.

Usage

Use the ISQXCFC command to place a target system channel offline to perform maintenance on a channel, to remove a faulty channel from active use, and so on. After the channel is offline, the ISQXCFC command updates channel status.

Restrictions and Limitations

This command is not supported for 4381 processors and a System/390 microprocessor cluster.

Neither this command nor any other processor operations command can place a channel online to a basic-mode target system again.

Return Codes

- 0 The ISQXCFC command completed successfully, the specified channel is now offline.
- 4 Either you used incorrect syntax, or you issued the command to an invalid processor or to a logically partitioned processor.
- 5 A problem occurred during the processing of the ISQXFRM command.
- 6 A problem occurred getting a reserve for the port.
- 8 A problem occurred during the processing of the ISQSEND command.
- 12 A problem occurred during the processing of the Vary Offline SLC.
- 32 The processor operations environment does not exist; the ISQXCFC command was not processed.

ISQXCLS**Purpose**

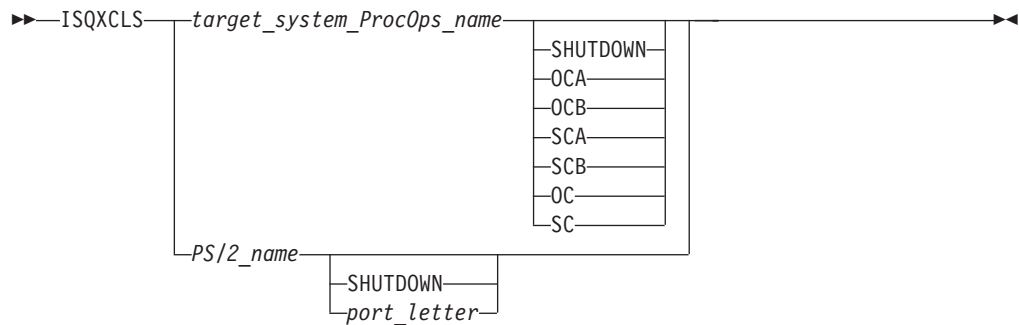
For a screen-oriented processor the ISQXCLS command closes a target system or some part of the processor operations environment. Closing a target system automatically closes the system console (if there are no other active logical partitions) and operator console ports and sets the target system status to CLOSED.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designation, the other way is to specify the PC name and port letter.

Specifying the PC name and port letter is not recommended. It is supported only for migration from ISCF.

ISQXCLS



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The *target_system_ProcOps_name* syntax requires the addressed target system to be initialized.
- The *PS/2_name port_letter* syntax requires the addressed target system to be initialized.
- No console or port to be closed can be locked by another task.
- Using the SHUTDOWN keyword requires that none of the associated consoles or PC ports be locked.

Parameters

target_system_ProcOps_name

Is the name of the target system to be closed.

SHUTDOWN

Causes a system reset at the specified target hardware. It also closes the target system. If the specified target hardware is running MVS and has a status of IPL COMPLETE, this keyword also issues the MVS QUIESCE command.

If the specified target hardware is running VM and has a status of IPL COMPLETE, the VM SHUTDOWN command is issued to the active operator console before the system reset is performed.

Note: The shutdown operation is not supported for OCF-based processors. However, the function is supplied as part of the DEACTIVATE common command.

OCA

Specifies the active operator console (not valid for the coupling facility).

OCB

Specifies the backup operator console (not valid for the coupling facility).

SCA

Specifies the active system console for screen oriented processors or the NVC path to a service element for OCF-based processors.

SCB

Specifies the backup system console (not valid for OCF-based processors).

OC

Specifies the active and backup operator consoles (not valid for the coupling facility).

SC

Specifies the active and backup system consoles for screen oriented processors or the NVC path to a service element for OCF-based processors.

PS/2_name

Is the name of a valid processor operations PC.

SHUTDOWN

Indicates either that a port is to be closed or that the distributed feature code running in the processor operations PC is to be halted. Ends the distributed feature code in the specified processor operations PC.

port_letter

Is a 1-character port identifier.

Defaults

None.

Usage

You can close a target system, processor operations PC, or a PC port. For a System/390 microprocessor cluster, the ISQXCLS command should not be issued. The common command DEACTIVATE FORCE(YES) and processor operations automation invoke the ISQXCLS command when appropriate.

Closing a Target System

Issue the following to close a target system:

```
ISQXCLS target_system_ProcOps_name
```

Closing a target system and not specifying shutdown ends any active sessions and sets port status and target status to CLOSED.

Issue the following to close a target system with the SHUTDOWN keyword:

```
ISQXCLS target_system_ProcOps_name SHUTDOWN
```

Closing a target system and specifying the SHUTDOWN keyword stops any operating system activity at the addressed target system, issues a system reset to it, ends any active sessions with it, and closes all ports at the associated processor operations PC (setting the port status to CLOSED). Closing a target system does not close the associated PC.

Make sure you perform any required end of day functions before issuing an ISQXCLS command that specifies the SHUTDOWN keyword to a target system. For MVS in an IPL COMPLETE status, the MVS Quiesce command is issued before the system reset. For VM systems in an IPL COMPLETE status, the VM Shutdown command is issued before the system reset. For VSE and TPF systems, only a system reset is performed. The system reset is initiated by sending either the SYSRESET command or the QNORMAL SLC.

Closing a PC

Issue the following to close a processor operations PC:

ISQXCLS

ISQXCLS PS/2_name

Closing a processor operations PC ends the communications between the focal-point system and the processor operations PC, updates the processor operations PC status to DEALLOCATED, and updates the status of any initialized ports on the processor operations PC to PC UNAVAILABLE. The ports are not closed.

Issue the following to close a PC with the SHUTDOWN keyword:

```
ISQXCLS PS/2_name SHUTDOWN
```

Closing a processor operations PC and specifying the SHUTDOWN keyword ends the processing of the distributed feature code, sets the status to DEALLOCATED, closes all target ports, and sets their status to UNDEFINED. You use the SHUTDOWN keyword when the processor operations PC is being closed and then initialized with either a different PS/2_name or with different port information.

If the same processor operations PC is defined multiple times in the configuration dialogs and you want to initialize the processor operations PC with a different PS/2_name, close the existing PS/2_name using the SHUTDOWN keyword before initializing the desired PS/2_name. Only one PS/2_name can be initialized at a time.

Port information can change when you are initializing a different target system on the same target hardware than the one that was just closed. This change may be because the target system is being initialized in a different hardware mode from before (such as logically-partitioned instead of ESA). Port information can also change when the same processor operations PC defined multiple times in the configuration dialogs under different PS/2_names uses different port letters under each PS/2_name.

Closing a PC Port

Issue the following to close a PC port:

```
ISQXCLS target_system_ProcOps_name console_designator
```

or

```
ISQXCLS PS/2_name port_letter
```

Closing a target console port disables the port, removes the screen handler definitions for that port, and changes the port status to UNDEFINED. Once the command has been processed, unsolicited messages are no longer received from that port. No commands can be routed to the console, including ISQSEND. However, the port remains associated with the target system.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- For OCF-based processors it is better not to issue this command. The common command DEACTIVATE FORCE(YES) is preferred.
- You cannot specify the SHUTDOWN keyword when specifying a console designator or when specifying a PC port.
- When using a OCF-based processor, you should not use the SHUTDOWN keyword.

- When issuing the ISQXCLS command to a VM system and specifying the SHUTDOWN keyword, the operator must be logged on and be capable of processing commands from the console for the command to complete successfully.
- Do not close a processor operations PC or PC port while an associated target system is still running. This can cause problems in the target system because the screen will not be cleared anymore, causing messages to back up.
- Do not close a 4381 system console port while the system console is in manual control mode. If necessary, issue the following commands to release manual control:

```
ISQSEND target_system_ProcOps_name console_designator #set manual off
ISQSEND target_system_ProcOps_name console_designator q z
```
- Do not close a system console on a logically partitioned system if any logical partition on that target hardware is active.
- You cannot close the focal-point port or the PC control port.
- If the ISQXCLS command is issued with SHUTDOWN, the system reset that is issued to the PC is verified, but successful completion of the command is not verified.
- If closing a target system with the SHUTDOWN keyword fails with return code 2, the shutdown request fails and the target system status remains unchanged. This status may not reflect that the QUIESCE command was issued to an MVS system or that the SHUTDOWN command was issued to a VM system and that the associated command completed successfully.

Return Codes

0	The ISQXCLS command completed successfully, no errors occurred.
2	The SHUTDOWN request failed.
4	The console was locked by another task.
8	You used syntax that was not valid.
12	A NetView or processor operations service problem occurred.
16	A severe error occurred.
32	The processor operations environment does not exist; the ISQXCLS command was not processed.

ISQXDLC

Purpose

The ISQXDLC command validates the status of the channels (CHPIDs) associated with a logically partitioned or basic-mode 9021, 9121, or 3090 processor, and updates the actual channel status of a target system.

Note: For a System/390 microprocessor cluster and 308x and 4381 processors, the function provided by ISQXDLC is not applicable.

Syntax

```
▶▶—ISQXDLC—target_system_ProcOps_name—comment—▶▶
```

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The system console must not be locked by another task.

Parameters

target_system_ProcOps_name

Is the name of the target system. This parameter must be specified, and must be a valid target system name.

comment

Treats any argument that follows the target system name as a comment (for migration purposes).

Defaults

None.

Usage

The ISQXDLC command checks the desired logical channel specifications defined in the configuration dialogs, compares them to the actual states, and updates status indicators appropriately.

The ISQXDLC command updates the channel status information displayed by the ISQXDST command (described on page 319).

Restrictions and Limitations

This command runs only for 9021, 9121, or 3090 systems. For a 9021, 9121, or 3090 system that is not logically partitioned, the ISQXDLC command checks only the target hardware CHPID status.

Return Codes

- | | |
|----|---|
| 0 | The ISQXDLC command processed without error and all required channels are online to the target system's logical partition. |
| 1 | The ISQXDLC command processed without error, but optional resources are not currently configured on the system. |
| 2 | The ISQXDLC command processed without error, but required resources are not currently configured on the system. |
| 4 | You used syntax that is not valid or specified a target system name that is not valid. A target system name that is not valid may be a name that does not exist or it may be assigned to target hardware other than a 9021, 9121, 3090 processor. |
| 5 | There was either a problem reading the console frame or a problem occurred during the processing of the ISQXFRM command. |
| 7 | A NetView CNMLOCK service problem occurred. |
| 8 | There was a problem parsing screens. |
| 12 | The system console was locked by another task. |
| 32 | The processor operations environment does not exist; the ISQXASN command was not processed. |

ISQXDLP

Purpose

The ISQXDLP command validates the status of the logical partition associated with a target system, and updates the partition status of the target system. The current values for the partition are compared to the desired values.

Note: The ISQXDLP command is not supported for a System/390 microprocessor cluster.

Syntax

```
▶▶—ISQXDLP—target_system_ProcOps_name—└──┬──▶▶  
└──┬──  
   |  
   └── comments ───┘
```

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The processor operations PC must be active.
- The system console function must have been assigned.
- The system console must not be locked by another task.

Parameters

target_system_ProcOps_name

Is the name of the target system. It is a required parameter, and must be a valid target system name.

comments

Treats any argument that follows the target system name as a comment (for migration purposes).

Defaults

None.

Usage

The ISQXDLP command checks the desired logical partition specifications defined in the configuration dialogs, compares them to the actual states, and updates status indicators appropriately.

This information is displayed by the ISQXDST command (described on page 319).

This command checks the following resource requirements for an LPAR system:

- Target mode
- Central storage
- Expanded storage
- Number of central processors
- Number of vector processors
- Number of online CHPIDs
- Favored LPAR status
- LPAR automatic IPL designator

ISQXDLP

The ISQXDLP command can be issued by an operator, by the ISQXIPL command, or by an automation procedure.

Restrictions and Limitations

The ISQXDLP command is valid only for 9021, 9121, or 3090 processors.

Return Codes

- | | |
|----|---|
| 0 | The ISQXDLP command processed without error. There were sufficient resources to meet the desired logical partition definition. More resources may have been defined than are desired. |
| 1 | Resources are missing. |
| 2 | You used syntax that is not valid, specified a target system name that is not valid, or specified a target system that is not initialized. |
| 4 | Internal error. |
| 6 | The target system is not in LPAR mode, the LPAR name is not in the current configuration, or the target hardware is not a 9021, 9121, or 3090 processor. |
| 8 | A problem occurred during the processing of the ISQSEND command. |
| 10 | Either the console was reserved or an ISQXLOC error occurred. |
| 20 | There was a problem with the 9021, 9121, or 3090 FRAME LPDEF SLC. |
| 28 | There was a problem with an internal NetView CNMCOMMAND service. |
| 32 | The processor operations environment does not exist; the ISQXDLP command was not processed. |

ISQXDRL

Purpose

The ISQXDRL command displays the outstanding MVS requests from a target system; the command is rejected for operating systems other than MVS. ISQXDRL issues the following MVS command to the active operator console port of the target system, and sends the response to the requesting NetView operator:

```
D R,L,CN=(ALL)
```

Syntax

```
►►—ISQXDRL—target_system_ProcOps_name—◄◄
```

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must have a status of INITIALIZED.
- The addressed target system must be running MVS.
- The operator console must not be locked by another task.
- You must be on the interested operators list for the operator console to see the reply messages.

Parameters

target_system_ProcOps_name

Is the name of the target system. It is a required parameter, and must be a valid target system name.

Defaults

None.

Usage

The ISQXDRL command provides a convenient alternative to using the pass-through facility to issue the MVS D R,L command.

Each line of the MVS response to the D R,L command is displayed as a single-line message. Processor operations does not trap the responses. There is no prefix to the message lines and the last line is followed by a line of dashes. Other messages to the operator may be interspersed with these messages, especially for the last line of dashes. The line of dashes may be issued some time after the last real line of output from the MVS command.

Restrictions and Limitations

The ISQXDRL command works only when issued to systems running MVS.

Return Codes

- | | |
|----|---|
| 0 | The ISQXDRL command completed successfully. |
| 4 | You used syntax that is not valid, specified a target system that is not running MVS, or specified a target system that is not initialized. |
| 8 | A problem occurred during the processing of the ISQSEND command or the console is locked by another task. |
| 32 | The processor operations environment does not exist; the ISQXDRL command was not processed. |

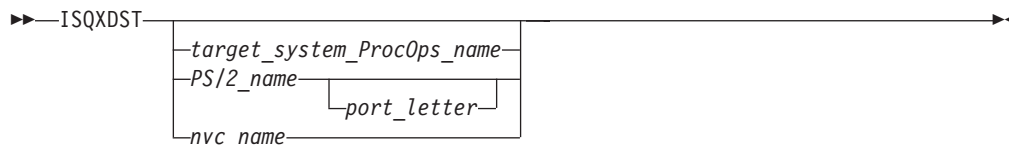
ISQXDST

Purpose

The ISQXDST command displays status panels, which provide the following information:

- Status summary (all target systems)
- Individual target hardware status
- Individual target system status
- Processor Operations PC status
- PC port status
- Path status
- Interested operator list

Syntax



Requirements

Processor operations must be active.

Parameters

target_system_ProcOps_name

Is the name of a valid target system for which you want to see individual target system status. If omitted, the summary status of all target systems is displayed.

See “Examples” on page 321 for a description of the status values for target systems.

nvc_name

Is the name of the NetView connection for which you want to see status.

PS/2_name

Is the name of a valid processor operations PC for which you want to see status.

port_letter

Is the 1-character port identifier for which you want to see status.

Defaults

The status summary panel that shows the overall status of all target systems.

Usage

Issue the ISQXDST command from an operator console to access the processor operations status facility. If you issue the command to access the status summary panel, you will be able to use the status facility to view multiple panels for multiple target systems without exiting the status facility. Refer to *System Automation for OS/390 Defining Automation Policy* and to *System Automation for OS/390 User’s Guide* for more information about how to set up and use the status facility.

To display the Status Summary, issue:

```
ISQXDST
```

To display the status of a specific target system, issue:

```
ISQXDST target_system_ProcOps_name
```

To display the status of a processor operations PC, issue:

```
ISQXDST PS/2_name
```

To display the status of a PC port, issue:

```
ISQXDST PS/2_name port_letter
```

If you enter the status facility by issuing the ISQXDST command with no other parameters, all of the status panels give you access to the other status panels supported by the status facility. Some of these status panels cannot be directly accessed by command. Refer to *System Automation for OS/390 User's Guide* for further information about how to use the status panels.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- Do not issue this command with ISQEXEC or from an automation procedure.
- You can issue the ISQXDST command only from an operator console.
- Actual values for channels and logical partition resources are displayed for 9021, 9121, or 3090 processors only.
 - You must have issued either the ISQXDLC command (described on page 315) or one of the commands which issue ISQXDLC internally (such as the ISQXIPL command with the CHECK option, described on page 331) before issuing the ISQXDST command or you will not necessarily see accurate channel information.
- You cannot display status for the focal-point port nor for the PC control port.

Return Codes

Return codes are not applicable because the ISQXDST command cannot be issued from a program.

Examples

```

ISQESUM          SA OS/390 Status Summary      Updates: Static
Place cursor on desired system and press PF key for more details

Target System Name  Status
KEYCF              UNKNOWN
KEY1               PS/2 SESSION PROBLEM
KEY2               PS/2 SESSION PROBLEM
KEY3               INITIALIZED
KEY4               INITIALIZED
KEY5               INITIALIZED
KEY6               INITIALIZED
PIRAN1             NVC SESSION PROBLEM
PIRAN2             NVC SESSION PROBLEM
PIRAN3             NVC SESSION PROBLEM

Enter=Dynam  PF1=Help PF3=Exit PF4=Target System Summary PF5=Resource
PF6=Roll    PF7=Up   PF8=Down PF9=Target Hardware Summary PF12=Quit
  
```

Figure 122. ISQXDST Status Summary Panel

The following values can be displayed on the ISQXDST panel to describe the status of target systems:

CLOSED

(green) The target system has been closed.

INITIALIZED

(green) The target system has been successfully initialized.

IPL COMPLETE

(green, yellow, or red) For a TPF or VSE system, the Load or Load Clear process started. For an MVS system, processor operations automation responded to the IEA347A message. For a VM system, processor operations automation responded to the VM start message. If this condition is displayed in red, this is to attract your attention to the fact that something is wrong (such as processor operations lost its communication link with the target system) rather than that the IPL process failed. This condition will revert to being displayed in green when the problem is corrected.

STAGE-1 ACTIVATE COMPLETE (for OCF-based processors)

(yellow) The support element power-on reset has occurred but the load is not yet complete.

NOT ACTIVE (for OCF-based processors)

(yellow) Activate response was received from the target and did not indicate that stage-1 activation was completed.

IPL FAILED

(red) MVS only — Error messages were generated during the initial program load process.

LOAD FAILED

(red) The Load or Load Clear operation did not complete successfully.

UNKNOWN

(green) No attempt has been made to initialize or activate this target system. This status can be set only by a cold start of processor operations.

WAITING FOR IEA101A START MESSAGE

(yellow or red) MVS only: ACTIVATE, ISQXIPL, or ISQXLOD command processing has completed for an MVS system and processor operations is waiting for the IEA101A message on the operator console. If this condition is displayed in red, this is to attract your attention to the fact that something is wrong (such as processor operations lost its communication link with the target system) rather than that processor operations has been waiting for the message too long.

WAITING FOR IEA347A MESSAGE

(yellow or red) MVS only: processor operations has replied to the IEA101A message and is waiting for the IEA347A message on the operator console. If this condition is displayed in red, this is to attract your attention to the fact that something is wrong (such as processor operations lost its communication link with the target system) rather than that processor operations has been waiting for the message too long.

WAITING FOR VM START MESSAGE

(yellow or red) VM only: processor operations is waiting for the first VM IPL message on the operator console. ISQXLOD, ISQXIPL, or ACTIVATE command processing has completed for a VM system and processor operations is waiting for the first VM IPL message on the operator console. If this condition is displayed in red, this is to attract your attention to the fact that something is wrong (such as processor operations lost its communication link with the target system) rather than that processor operations has been waiting for the message too long.

ISQXFLS

Purpose

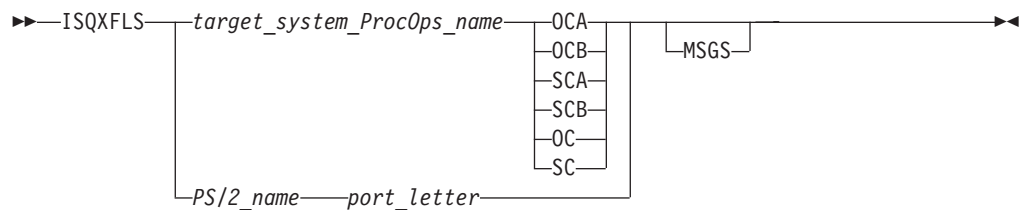
The ISQXFLS command removes (“flushes”) commands from the command queue or responses from the message queue on a PC port.

Note: The ISQXFLS command is not supported for NetView connections.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designator, the other way is to specify the PC name and port letter.

Specifying the PC name and port letter is not recommended. It is supported only for migration from ISCF.



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The console must not be locked by another task.

Parameters

target_system_ProcOps_name

Is the name of the target system whose console is connected to the PC port for which data is to be removed.

OCA

Specifies the active operator console (not valid for the coupling facility).

OCB

Specifies the backup operator console (not valid for the coupling facility).

SCA

Specifies the active system console.

SCB

Specifies the backup system console.

OC

Specifies the active operator console (not valid for the coupling facility).

SC

Specifies the active system console.

PS/2_name

Is the name of the PC connected to the port.

ISQXFLS

port_letter

Is the 1-character port identifier.

MSGs

Indicates messages are to be removed from the active queue of the processor operations PC connected to the designated target system.

Defaults

None.

Usage

ISQXFLS performs the same function as the #PURGE command. Refer to *System Automation for OS/390 Programmer's Reference* for further information.

Restrictions and Limitations

This command cannot be issued for a NetView connection.

Return Codes

- | | |
|----|---|
| 0 | The ISQXFLS command processed without error. |
| 4 | You used syntax that is not valid, specified a target system that is not initialized, or specified an invalid target system connection. |
| 8 | The #PURGE command was unsuccessful. |
| 32 | The processor operations environment does not exist; the ISQXFLS command was not processed. |

ISQXFRC

Purpose

The ISQXFRC command configures a channel path offline from a target system that is operating in a logical partition.

Note: The ISQXFRC command is not supported for System/390 microprocessor cluster, 308x, and 4381 processors.

Syntax

▶▶—ISQXFRC—*chpid_number*—FOR—*target_system_ProcOps_name*————▶▶

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The addressed target system must be associated with target hardware operating in LPAR mode.
- The system console must not be locked by another task.

Parameters

chpid_number

Identifies the channel path that is to be taken offline. This parameter is required and must be a 2-character hexadecimal number (such as 0B).

FOR

Indicates that the variable following it is the name of the target system whose channel is to be configured offline.

target_system_ProcOps_name

Is the name of the target system. This is a required parameter, must be a valid target system, and must be preceded by the **FOR** keyword.

Defaults

None.

Usage

Use the ISQXFRC command to place a target system channel offline to reconfigure channels assigned to logical partitions, to perform maintenance on a channel, or to remove a faulty channel from active use.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- The ISQXFRC command is valid only for logically partitioned 3090, 9021, and 9121 processors.

Return Codes

- | | |
|----|---|
| 0 | The ISQXFRC command completed successfully. |
| 1 | You used syntax that is not valid. Any of the following may have been specified: an invalid target system name, a target system associated with invalid hardware, or a target system that is not initialized. |
| 2 | A problem occurred during the processing of the ISQSEND command. |
| 3 | Either the processor operations PC did not respond or the 9021, 9121, or 3090 CHPID SLC failed. |
| 6 | The system console was locked by another task. |
| 7 | A problem occurred during the processing of the ISQXSLP command. |
| 32 | The processor operations environment does not exist; the ISQXFRC command was not processed. |

ISQXFRM

Purpose

The ISQXFRM command switches the active system console to a specific display frame.

Note: The function supported by this command is not applicable on OCF-based processors.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name, the other way is to specify the PC name and port letter.

ISQXFRM

Note: Specifying the PC name and port letter is not recommended and is supported only for migration from ISCF.

►► ISQXFRM *target_system_ProcOps_name* *frame_name* ◄◄
└─ *PS/2_name* *port_letter* ─┘

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The *target_system_ProcOps_name* syntax requires that the addressed target system be initialized.
- The *PS/2_name* syntax requires that the addressed port be connected to a system console.
- The system console must be assigned.
- The system console must not be locked by another task.

Parameters

target_system_ProcOps_name

Is the name of the target system whose active system console is to be switched to a specific frame.

frame_name

Is the name of the required system console frame.

PS/2_name

Is the name of the processor operations PC whose port is connected to the active system console which is to be switched to the specified frame.

port_letter

This variable is a 1-character port identifier.

Defaults

None.

Usage

Although you can use the ISQXFRM command directly, it is more likely to be used within an automation procedure. If you call it directly, intending to use ISQSEND commands that depend on the result of the ISQXFRM command, you should consider direct use of the ISQXLOC and ISQXUNL commands to ensure that there is no interference with commands to the console from other operators.

After changing the frame, ISQXFRM reads the frame to verify that it changed to the requested frame.

Restrictions and Limitations

For systems running in LPAR mode, ISQXFRM does not ensure that the partition associated with the target system is current. This should be done using ISQXSLP.

The ISQXFRM command is not supported for 4381 or OCF-based processors.

Return Codes

- 0 The ISQXFRM command processed successfully and the desired frame is now current at the 9021, 9121, or 3090 system console.
- 8 One of the following was specified:
 - Invalid syntax
 - Invalid target system name
 - Invalid PC name
 - Invalid PC port
 - Target system that is not initialized
 - Target system name that is not associated with valid hardware
- 12 System console cannot change to desired frame.
- 32 The processor operations environment does not exist; the ISQXFRM command was not processed.

ISQXGTC

Purpose

The ISQXGTC command brings a channel path online to a target system that is a logical partition of a 9021, 9121, or 3090 processor.

Note: The function supported by this command is not applicable on a System/390 microprocessor cluster.

Syntax

►►—ISQXGTC—*chpid_number*—FOR—*target_system_ProcOps_name*—————►►

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The addressed target system must be associated with target hardware operating in LPAR mode.
- The system console must not be locked by another task.

Parameters

chpid_number

Identifies the required channel path. This parameter is required, and is a 2-character hexadecimal number (such as 0B), that represents a valid channel on the processor.

FOR

Indicates that the variable following it identifies the target system whose channel is to be brought online.

target_system_ProcOps_name

Is the name of the target system. It is a required parameter, must be a valid target system name, and must be preceded by the FOR keyword.

ISQXGTC

Defaults

None.

Usage

Issue the ISQXGTC command to place a channel in operation after it has been in an offline state.

The ISQXGTC command brings a channel online, whether it was placed offline with the ISQXFRC command (described on page 324) or before processor operations was started.

Restrictions and Limitations

The ISQXGTC command is valid only for logically partitioned 9021, 9121, and 3090 processors.

Return Codes

- | | |
|----|--|
| 0 | The ISQXGTC command completed successfully. |
| 1 | You used syntax that is not valid, specified a target system that is not initialized, or specified a target system name that is not valid or not associated with valid hardware. |
| 2 | A problem occurred during the processing of the ISQSEND command. |
| 3 | Either the processor operations PC did not respond, or the 9021, 9121, or 3090 CHPID SLC failed. |
| 6 | The system console was locked by another task. |
| 7 | A problem occurred during the processing of the ISQXSLP command. |
| 32 | The processor operations environment does not exist; the ISQXGTC command was not processed. |

ISQXIII

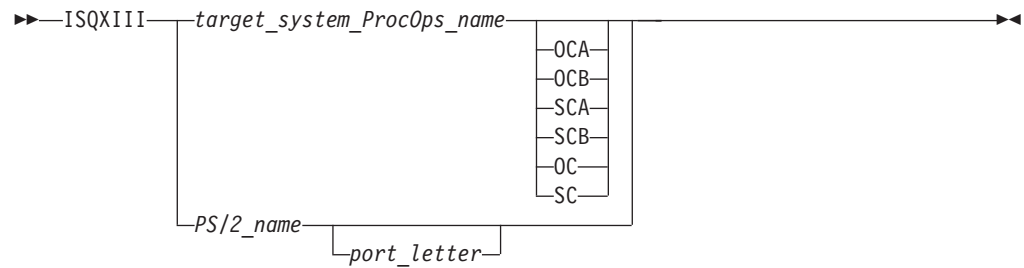
Purpose

The ISQXIII command initializes (or re-initializes) a target system, processor operations PC, or a PC port. When initializing a target system, ISQXIII starts the processor operations distributed feature code and all associated sessions and processor operations PCs, and it enables all the required target ports.

Syntax

There are two ways to issue the ISQXIII command to initialize a PS/2 port. One way is to specify the target system name with or without a console designator, the other way is to specify the PC name and port letter.

Note: Specifying the PC name and port letter is not recommended and is supported only for migration from ISCF.



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must have a status of UNKNOWN or CLOSED.
- The addressed target system must be initialized if you use the *target_system_ProcOps_name console_designator* syntax.
- The addressed target system must be initialized if you use the *PS/2_name port_letter* syntax.
- The addressed processor operations PC must have Warp Server for e-business and Access Feature for Personal Communications software running.
- No associated ports can be locked by another task.
- When initializing a port, the port must have a status of UNDEFINED or CLOSED.
- The addressed port cannot be the focal-point port or the control port when using the *PS/2_name port_letter* syntax.

Parameters

target_system_ProcOps_name

Is the name of the target system. This is a required parameter, and must be a valid target system name.

OCA

Specifies the active operator console (not valid for the coupling facility).

OCB

Specifies the backup operator console (not valid for the coupling facility).

SCA

Specifies the active system console (not valid for an OCF-based processor).

SCB

Specifies the backup system console (not valid for an OCF-based processor).

OC

Specifies the active operator console (not valid for the coupling facility).

SC

Specifies the active system console (not valid for an OCF-based processor).

PS/2_name

Is the name of the processor operations PC.

port_letter

Is a 1-character port ID for the console. If this parameter is specified, the designated PC port is initialized. If this parameter is not specified, the processor operations PC is initialized.

Defaults

None.

Usage

On an OCF-based processor, it is preferable to use the ACTIVATE command described on page 257.

Issue the ISQXIII command to a target system, processor operations PC, or PC port to prepare it for processor operations monitoring and control.

Initializing a Target System

Initializing a target system also initializes all associated processor operations PCs and PC ports to that target system. It also updates the interested operator lists for consoles at that target system. The interested operator lists are updated because an operator can join an interested operator list by issuing the ISQXMON command (described on page 339) after processor operations has been started but before the target system has been initialized.

Once a target system is initialized, its associated processor operations PCs are initialized, ports are associated with that target system, and the target system status is set to INITIALIZED. You have to initialize the target system to establish the related processor operations PCs and ports providing the console connections to the target system. If you have to re-initialize a target system, processor operations PC, console, or PC port, issue the ISQXCLS command (described on page 311) to close it first, then issue the ISQXIII command to re-initialize it.

Initializing a PS/2 Computer: This does the following:

- Establishes a communications session between the processor operations PC and the focal-point system
- Sets the PC status to CLEAR TO SEND
- Causes all ports with the status of UNDEFINED to be initialized

Initializing a PS/2 Port: Initializing a PC port consists of setting up the port according to the port and screen handler specifications defined in the configuration dialogs for that port, and setting the PC port status to ACTIVE. Initializing a PC port also initializes the associated processor operations PC if it is not already initialized.

If you want to initialize only one specific PC port, issue the ISQXIII command (described on page 328), specifying the processor operations PC name and the port letter as parameters.

Both the ACTIVATE common command and the ISQXIPL host-based command initialize associated processor operations PCs and PC ports (if necessary) as part of their larger procedures.

Issuing the ISQXIII host-based command to initialize a target system also initializes the associated processor operations PC and PC ports (if necessary) as part of its larger procedure.

Initializing a backup port disables it from sending messages from the processor operations PC to the focal-point system.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- The *PS/2_name* syntax is valid only for target ports. You cannot directly initialize the focal-point port nor the PC control port.
- Required target hardware and PC ports must be available as follows to successfully initialize a target system:
 - Basic-mode target hardware must not already be initialized.
 - The required logical partition of logically partitioned target hardware must not be in use by any other initialized target system on the same target hardware.
 - Required PC ports must not be initialized to other target systems.
- To re-initialize a target system, processor operations PC, or PC port that is already initialized you must first close it with the ISQXCLS command (described on page 311).
- To initialize a PC port, the associated target system must have been initialized previously.

Return Codes

- | | |
|----|---|
| 0 | The ISQXIII command processed successfully and the processor operations environment for the specified target system has been initialized or re-initialized. |
| 3 | A request to start a specific port failed. |
| 4 | During initialization of a target system one or more of the following problems occurred: <ul style="list-style-type: none"> • No system consoles could be contacted. • No operator consoles could be contacted. |
| 8 | You used syntax that is not valid, specified a PC port that is not valid, or specified a target system that is not initialized. |
| 12 | An internal error occurred. |
| 16 | A severe error occurred. |
| 32 | The processor operations environment does not exist; the ISQXIII command was not processed. |

ISQXIPL

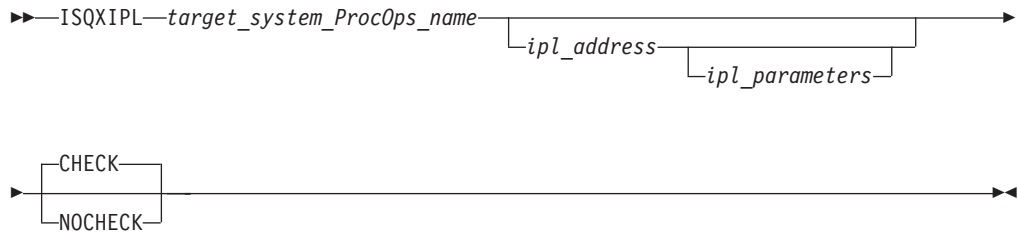
Purpose

The ISQXIPL command ensures that all necessary conditions for the initial program load (IPL) process for a target system are satisfied, and performs the initial program load process for the system.

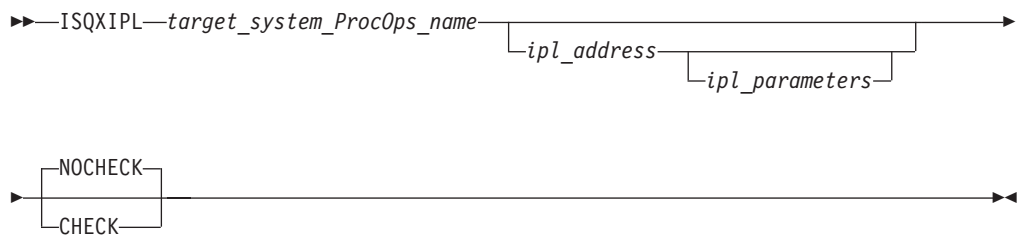
Note: The ISQXIPL command is not supported for OCF-based processors.

Syntax

For 9021, 9121, and 3090 processors:



For 4381 and 308x processors:



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The target hardware must be in the correct mode.
- 308x and 4381 target hardware must have the correct IOCDS.
- The addressed target system must have a status of UNKNOWN, CLOSED, or INITIALIZED.
- The addressed target system cannot have a status of IPL COMPLETE.
- The operator console must not be locked.
- The system console must not be locked.
- A 308x system console must be assigned before issuing this command (see "Restrictions and Limitations" on page 334).

Parameters

target_system_ProcOps_name

Is the name of the target system. It is a required parameter and must be the name of a valid target system.

ipl_address

Specifies the direct storage access device (DASD) unit address from which the operating system is to be loaded. If not specified, the value specified in the configuration dialogs is used. If specified, this 4-digit hexadecimal value must be the second parameter.

ipl_parameters

Specifies the load parameters (such as which nucleus to load) that are to be used in the processor LOAD command. This is an 8-character hexadecimal

value. If specified, *ipl_address* must also be specified. If not specified, the value specified in the configuration dialogs is used.

CHECK

Indicates whether resource checking should be performed. This optional keyword is the default for 9021, 9121, and 3090 processors. If the target system is defined to operate in a logical partition of an LPAR-mode processor, CHECK indicates that the partition and the channels belonging to the partition should be checked to see if they are set as desired. If the target system is defined to operate in basic mode hardware, only the CHPIDs are checked. If CHECK is specified, it must follow the preceding positional parameters.

NOCHECK

Indicates that resource checking should not be performed. This optional keyword is the default for 4381 processors and for 308x processors. If the target system is defined to operate in a logical partition of an LPAR-mode processor, NOCHECK indicates that the partition and the channels belonging to the partition should not be checked to see if they are set as desired. If the target system is defined to operate in basic mode hardware, no checking is done. If NOCHECK is specified, it must follow the preceding positional parameters.

Defaults

The *ipl_address* and *ipl_parameters* default to values specified in the configuration dialogs during installation.

CHECK is the default for 9021, 9121, and 3090 systems; NOCHECK is the default for 4381 and 308x systems.

Usage

For logically partitioned systems, the ISQXIPL command checks the CHPID status in the logical partition definition and the target hardware system, and updates status that can be displayed by using the ISQXDST command. For a basic-mode 9021, 9121, or 3090 system, the ISQXIPL command checks only the target hardware CHPID status. For a 4381 or 308x system, the ISQXIPL command does not perform any resource requirement checks.

ISQXIPL also checks the following resource requirements for a logically partitioned system:

- Target mode
- Central storage
- Expanded storage
- Number of central processors
- Number of vector processors
- Number of online CHPIDs
- Favored logical partition status
- Logical partition automatic IPL designator

ISQXIPL performs the following functions in the indicated sequence, if appropriate:

1. Initializes the processor operations environment for the designated target system.
2. Assigns the system console function.
3. Verifies that the logical partition definition meets the desired requirements (only if the target hardware is in LPAR mode).

ISQXIPL

4. Activates the logical partition, if it is not already active (only if the target hardware is in LPAR mode).
5. Verifies that the logical partition channels are correct (only if the target hardware is in LPAR mode).
6. Verifies that the target hardware channels are correct.
7. Loads and starts the operating system software.

Note: For corresponding function with an OCF-based processor, use the `ACTIVATE` command with the Load profile if you are in basic mode or with the Image profile for LPAR mode.

The ISQXIPL command places you on the interested operators list for the system console and the operator console of the specified target system.

Restrictions and Limitations

The ISQXIPL command is not valid for OCF-based processors.

The CHECK keyword is ignored for a 4381 processor or a 308x processor.

Attention:

308x target systems must have the correct console assignment before you issue an ISQXIPL command. If the 308x processor is in single-image mode, for the ISQXIPL command to process correctly, the console must be A. If it is physically partitioned, the console can be A or B.

If you want to perform the initial program load process for a target system that is already active, but want it to operate using a new target hardware configuration (different I/O configuration data set or mode of operation), you have to issue the ISQXPOR command (described on page 346) before issuing the ISQXIPL command.

The ISQXIPL command will be rejected if the addressed target system has a status of IPL COMPLETE. To perform the IPL process for a target system that is in this status condition, issue the ISQXCLS command (described on page 311), issue the ISQXIII command (described on page 328), and then issue the ISQXIPL command to the target system.

Return Codes

- | | |
|----|--|
| 0 | The ISQXIPL command was accepted and the IPL request has been scheduled. |
| 4 | A problem occurred during the processing of the ISQXASN command. |
| 8 | You used syntax that is not valid, the status of the specified target system is not acceptable for performing the IPL process, or the indicated target system is associated with invalid hardware. |
| 32 | The processor operations environment does not exist; the ISQXIPL command was not processed. |

ISQXLOC

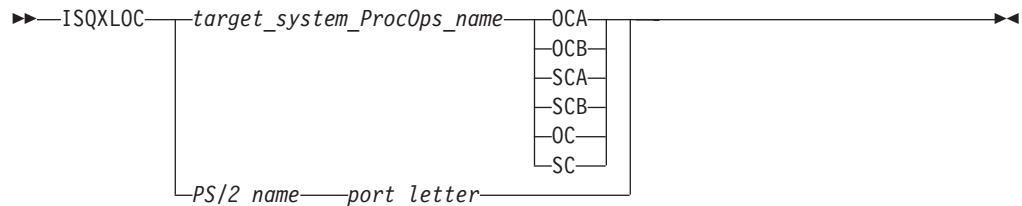
Purpose

The ISQXLOC command locks access to a console to serialize operations to that console with other operator tasks.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designator, the other way is to specify the PC name and port letter.

Specifying the PC name and port letter is not recommended. It is supported only for migration from ISCF.



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The console must not be locked by another task.
- The *target_system_ProcOps_name* syntax requires that the addressed target system be initialized.
- The *PS/2_name* syntax requires that the addressed port be initialized.

Parameters

target_system_ProcOps_name

Is the name of the target system.

OCA

Specifies the active operator console (not valid for the coupling facility).

OCB

Specifies the backup operator console (not valid for the coupling facility).

SCA

Specifies the active system console (not valid for the OCF-based processors).

SCB

Specifies the backup system console (not valid for the OCF-based processors).

OC

Specifies the active operator console (not valid for the coupling facility).

SC

This keyword specifies the active system console (not valid for the OCF-based processors).

PS/2_name

Is the name of the processor operations PC.

port_letter

Is a 1-character port identifier.

ISQXLOC

Defaults

None.

Usage

All processor operations commands that require serialization automatically lock the console when they start and unlock the console when they complete.

The lock is a logical entity that prevents processor operations operations from being sent to the console—they are rejected unless issued by the same task that issued the ISQXLOC command—until the lock is removed by the ISQXUNL command (described on page 350).

If you are going to issue several commands to a target system, you can issue the ISQXLOC command to lock access to the console to ensure the commands are processed without interruption by commands from other tasks. When you are finished with this sequence of commands, issue the ISQXUNL command to unlock access to the console.

If the ISQXLOC command is issued within an automation procedure, or within a set of called automation procedures, then the locked console should be unlocked (using the ISQXUNL command) after all processing of the automation procedure is completed. It is not normally necessary to lock a console for the processing of an automation procedure because of the serialization of the ISQEXEC command.

Any change in lock status is reflected in the status facility.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- The parameters are not checked for validity.
- Once obtained by a task, another task cannot obtain the lock until it is released by the owning task.
- An ISQXLOC command issued from within a locked sequence of commands is rejected.

Return Codes

- | | |
|----|---|
| 0 | The ISQXLOC command completed successfully. |
| 4 | The console was already locked by the current task. |
| 8 | You used syntax that is not valid, specified a target system name that is not valid, specified a PC port that is not valid, or specified a target system that is not initialized. |
| 12 | The console is locked by another task. |
| 32 | The processor operations environment does not exist; the ISQXLOC command was not processed. |

Return codes greater than 8 not listed above — an error occurred in the NetView CNMLOCK service.

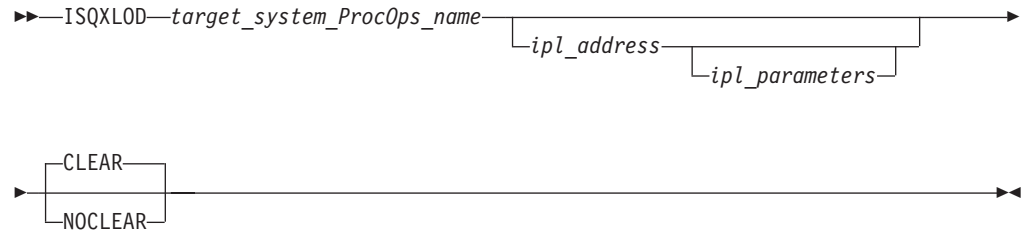
ISQXL0D

Purpose

The ISQXL0D command issues the processor LOAD command for a target system at its system console.

Note: This command is not valid for OCF-based processors. The function supported by this command is performed by the common commands, LOAD and ACTIVATE, for these processors.

Syntax



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The addressed target system cannot have a status of UNKNOWN, CLOSED, or IPL COMPLETE.
- The system console function must have been assigned.
- The system console must not be locked by another task.
- The processor operations PC used as the active system console must be active.

Parameters

target_system_ProcOps_name

Is the name of the target system. It is a required parameter and must be a valid target system name.

ipl_address

Is an optional parameter and is the address of the disk from which the target system is to be loaded. If *ipl_address* is specified, it must be the second parameter consisting of a 4-character hexadecimal address. If not specified, the value specified in the configuration dialogs is used (use ISQVARS to view this value).

ipl_parameters

Is an optional parameter and is the load parameter used with the processor LOAD command. For MVS/XA™, it defines the nucleus and configuration members of SYS1.NUCLEUS that are loaded. If specified, it must be the third parameter and *ipl_address* must also be specified. If not specified, the value specified in configuration dialogs is used.

CLEAR

Indicates whether the function of clearing storage is to be performed. This keyword is equivalent to the CLEAR keyword for the processor LOAD command. It indicates main storage is to be cleared during the load process. This is the default.

NOCLEAR

Indicates that the function of clearing storage is not to be performed. This

ISQXLOD

keyword is equivalent to the NOCLEAR keyword for the processor LOAD command. It indicates main storage is not to be cleared during the load process.

Defaults

The ISQXLOD command defaults to CLEAR (this is the opposite of the default for the LOAD common command).

The variables *ipl_address* and *ipl_parm* default to values specified in the configuration dialogs during installation.

Usage

Specifying ISQXLOD is the same as specifying the LOAD common command (described on page 277).

The ISQXLOD command assumes that the processor operations environment has been established and that the system console function has been assigned. For a target system operating on an LPAR-mode processor, it also assumes that the logical partition is active and that any required channels are online to the partition. If these assumptions are not correct, other initialization commands should be run first. These functions are all performed by the ACTIVATE common command (described on page 257) and the ISQXIPL command (described on page 331).

Use the CLEAR keyword when loading a system that was halted by a problem. Use the NOCLEAR keyword when loading the stand-alone dump program (and use the correct *ipl_address*).

Completion of the ISQXLOD command sets the target system status to one of the following:

- IPL COMPLETE
- WAITING FOR IEA101A MESSAGE
- WAITING FOR VM START MESSAGE
- LOAD FAILED

Restrictions and Limitations

The ISQXLOD command is not supported for OCF-based processors or the coupling facility.

The NOCLEAR keyword is not supported for 308x processors.

The ISQXLOD command will be rejected if the addressed target system has a status of UNKNOWN, CLOSED, or IPL COMPLETE. To perform the load process for a target system that is in one of these status conditions, issue the ISQXCLS command (described on page 311), issue the ISQXIII command (described on page 328), and then issue the ISQXLOD command to the target system.

Return Codes

- | | |
|---|---|
| 0 | The ISQXLOD command processed successfully. The processor LOAD command was issued, accepted, and completed without error at the system console. |
| 2 | You used incorrect command syntax. |
| 4 | You specified an incorrect target system name. |
| 6 | The status of the specified target system is not acceptable for performing the Load process. |

- 7 Invalid target system name or the specified target system is associated with invalid hardware.
- 8 A problem occurred during the processing of the ISQSEND command.
- 9 Communications task not active.
- 10 The console was locked by another task.
- 12 A timeout occurred waiting for the response to the LOAD command, the Load failed, or an error message was received.
- 16 An internal error occurred.
- 32 The processor operations environment does not exist; the ISQXL0D command was not processed.

ISQXMON

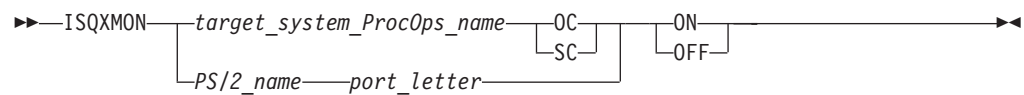
Purpose

The ISQXMON command adds you to or deletes you from the interested operator list for a port or a target system console. When added, you can monitor a console and receive all message traffic for that console.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designator, the other way is to specify the PC name and port letter.

Note: Specifying the PC name and port letter is not recommended and is supported only for migration from ISCF.



Requirements

Processor operations must be active.

Parameters

target_system_ProcOps_name

Is the name of the target system you want to monitor. The name must be a valid target system name.

OC

Specifies the active and backup operator consoles (not valid for the coupling facility).

SC

Specifies the active and backup system consoles.

ON

Indicates you are to be added to the list of interested operators.

OFF

Indicate whether you are to be deleted from the list of interested operators.

PS/2_name

Is the name of the processor operations PC.

ISQXMON

port_letter

Is a 1-character port identifier.

Defaults

None.

Usage

If you are using the NetView connection and console integration, messages will be routed to the SC list and *not* the OC list.

The ISQXMON command may be issued at any time after processor operations has been started. It does not require that the target system or processor operations PC, or its port, be active.

Interested operator lists are maintained by console and by PC port. There are two lists for each target system — one for the operator console and one for the system console. The maximum number of interested operators is 12 per console (but only 10 can be specified through the configuration dialogs). You can also monitor the focal-point port or the PC control port (using the *PS/2_name port_letter* syntax).

Note: VSE operating in the unattended node support mode suppresses messages to the operator console. See the *VSE/SP Unattended Node Support* and *VSE/ESA™ 1.1.0 Unattended Node Support* books for more information about VSE operating in this mode.

Using the *target_system_ProcOps_name* syntax specifies that you want to monitor messages from the specified target system. Using the *PS/2_name port_letter* syntax specifies that you want to monitor any traffic through that specific port. If the target system addressed through that port is re-defined, you will see the traffic from the new target system.

Specifying the system console of a logically partitioned system means you will see messages for all target systems running on that target hardware. Conversely, you must issue ISQXMON OFF for the system consoles of all target systems running on the logically partitioned hardware to stop receiving any traffic through that port because the other logical partitions are using the same port and system console.

You will receive only one copy of a message generated by target hardware, even if you are on multiple lists for logically partitioned target hardware (each of the target systems on that hardware).

You can add yourself to the interested operator list using the *target_system_ProcOps_name* form of the ISQXMON command, and remove yourself from that list using the *PS/2_name* form of the ISQXMON command. However, the reverse does not apply; you cannot add yourself to the interested operator list using the *PS/2_name* form and remove yourself using the *target_system_ProcOps_name* form.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- If several target systems have the same port defined as their system console (for example, in a PR/SM™ system), and you issue ISQXMON ON for the system console of one of those targets, you receive all messages from the port.

- Similarly, if you issue ISQXMON OFF for the system console of one of the target systems that is not logically partitioned, you cease to receive any messages from that port. If you issue ISQXMON OFF for the system console of one of the logically partitioned target systems, you receive messages from that logical partition because other logical partitions are using the same port. You will continue to monitor all traffic for that console until you have issued ISQXMON OFF for all of the logical partitions using that port.
- There is a maximum of 12 interested operators per console.
- A NetView group name cannot be added or removed from a list with the ISQXMON command.
- There can be no more than 256 unique operator names in all interested operator lists.

Return Codes

- | | |
|----|--|
| 0 | The ISQXMON command processed successfully. The operator issuing the ISQXMON command has been added to or deleted from the interested operators list of the specified console, as requested. |
| 4 | You specified incorrect command syntax. |
| 6 | The interested operator list is full. |
| 8 | You specified a NetView group name for the list to which you want to be added as an interested operator. |
| 16 | An internal error occurred. |
| 32 | The processor operations environment does not exist; the ISQXMON command was not processed. |

ISQXOPT

Purpose

The ISQXOPT command displays target system information. Some information can be changed at this panel.

Syntax

►►—ISQXOPT—*target_system_ProcOps_name*—◄◄

Requirements

Processor operations must be active.

Parameters

target_system_ProcOps_name

Is the name of the target system. It must be a valid target system name of 8 characters or less.

Defaults

None.

Usage

Issue ISQXOPT *target_system_ProcOps_name* to display a full-screen panel that shows the values of the variables that define the operation of a specific target

ISQXOPT

system, such as initial program load parameters and the responses to IPL messages. The following fields cannot be modified:

- Hardware mode
- Partition
- Target mode
- Operating system
- Hardware type
- Automatic response selection

Four examples of this panel are shown below:

- Figure 123 in basic-mode MVS
- Figure 124 on page 343 in basic-mode using an OCF-based processor
- Figure 125 on page 343 in LPAR mode using an OCF-based processor
- Figure 126 on page 344 for an OCF-based processor using the coupling facility

```
ISQEOPT      SA OS/390 - Target System Options

Modifiable options specified for target system  TARGET01

Hardware mode: Basic mode      Target mode: ESA
Operating system: MVS          Hardware type: 9121
Target description:

Central stor 00256             CPUs:          Vectors:
Exp storage  00128             CP0  OFF      VP0  N
Load CP      1                 CP1  ON       VP1  N
Load parms   03F001M1          CP2  OFF      VP2  N
IOCDS name   A1                CP3  OFF      VP3  N
Load address 070E              CP4  OFF      VP4  N
                                     CP5  OFF      VP5  N
                                     CP6  OFF      VP6  N
Auto resp sel Y                 CP7  OFF      VP7  N
                                     CP8  OFF      VP8  N
Response to IEA101A:           CP9  OFF      VP9  N

Response to IEA347A:

Required addresses:

PF1= Help PF3= End PF6= Roll Enter= Process changes
```

Figure 123. Sample System Options Panel for a Basic-Mode MVS Target System

```

ISQHOPT      SA OS/390 - Target System Options

      Modifiable options specified for target system      KEY2

Hardware mode: Basic mode      Target Mode:  ESA
Operating system:  MVS          Hardware Type: 9672
Target description:

      Image profile name
      Load profile name      LOADVMVS
      Reset profile name     390RESET

      Auto resp sel          Y

Response to IEA101A:

Response to IEA347A:

Required addresses:

PF1= Help PF3= End PF6= Roll Enter= Process changes

```

Figure 124. Sample System Options Panel for an OCF-Based Processor in a Basic-Mode MVS Target System

```

ISQHOPT1     SA OS/390 - Target System Options

      Modifiable options specified for target system      KEY2

Hardware mode: LPAR partition:  KEY21      Target mode:  ESA
Operating system:  MVS          Hardware type: 9672
Target description:

      Image profile name     KEY21
      Load profile name     DEFAULTLOAD
      Reset profile name     DEFAULT
      Secondary OCF name     KEY21

      Auto resp sel          Y

Response to IEA101A:

Response to IEA347A:

Required addresses:

PF1= Help PF3= End PF6= Roll Enter= Process changes

```

Figure 125. Sample System Options Panel for an OCF-Based Processor in LPAR-Mode MVS Target System

ISQXOPT

```
SA OS/390 - Target System Options
ISQXOPT
Modifiable options specified for target system C10A01

Hardware Mode: LPAR Partition: A31 Target Mode: *
Operating System: CF Hardware Type: 9021

Target Description:
Central Stor 00128 CP0 ON VP0 N
Exp Storage 00128 CP1 OFF VP1 N
Processing Wt 100 CP2 OFF VP2 N
Capping N CP3 OFF VP3 N
IOCDS name C10A3LP1 CP4 OFF VP4 N
Load address 0190 CP5 OFF VP5 N
ICMF N CP6 OFF VP6 N
CP7 OFF VP7 N

PF1= Help PF3= End PF6= Roll Enter= Process changes
```

Figure 126. Sample System Options Panel for a Screen-Oriented Target System Using the Coupling Facility

Issuing this command for a non-existent target system results in a panel for a Basic-mode system with a message that the specified target system does not exist. You can recover from this condition by simply typing in the name of the desired target system in the first field of the panel and pressing the Enter key. You can also type over the name of a valid target system on a valid panel and press the Enter key to change the display to that for a different target system.

Some variables can be changed by typing a new value over the old value and pressing Enter. When the variable is updated, the ISQXOPT panel is displayed again and another variable can be updated.

The information contained in the panel is retrieved, and the NetView View command presents the panel. The information you enter is checked and error messages are generated if the information is not valid. These error messages, which identify the field with the problem, are displayed on a separate panel that shows all error messages for all fields.

Restrictions and Limitations

- You cannot issue the ISQXOPT command from within a program.
- You must issue the ISQXOPT command from an NCCF command line.

Return Codes

Return codes are not applicable because you cannot issue this command from within a program.

ISQXPAR

Purpose

The ISQXPAR command sets a logical partition for a target system to the desired values defined in processor operations internal values.

Note: The ISQXPAR command is not valid for a System/390 microprocessor cluster. For these processors, the function supported by this command is performed by the ACTIVATE common command with an Image profile.

Syntax

►►—ISQXPAR—*target_system_ProcOps_name*—◄◄

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The system console must not be locked by another task.
- The addressed target system must be associated with target hardware operating in LPAR mode.

Parameters

target_system_ProcOps_name

Is the name of the target system. This is a required parameter and must be a valid target system name. It must be a target system that runs as a logical partition of an LPAR-mode processor.

Defaults

None.

Usage

The ISQXPAR command sets the logical partition at the specified 9021, 9121, or 3090 processor to the desired partition values. These values define the resources to be assigned to the partition, and may be displayed and modified using the ISQXOPT command.

Issue this command as part of initialization procedures. This command lets you change logical partition definitions before activating the logical partition. Use the ISQXOPT or ISQVARS command to change the values, issue the ISQXSLP command, issue the ISQXPAR command, and then issue the ISQXACT command.

You may want to issue ISQXPAR if the ISQXIPL command fails during its checking of available resources. This will cause the logical partition to be set with the current desired values, which may have been changed since the last IPL process.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

ISQXPAP

- The ISQXPAP command is valid only for logically partitioned 9021, 9121, and 3090 processors.
- The ISQXPAP command does not check to see if the logical partition is in use. You should check before issuing the ISQXPAP command because it deactivates the logical partition, which can be disruptive.
- ISQXPAP does not activate the partition it has set; use ISQXACT for this function.
- ISQXPAP requires that the name of any partition to be set must already be defined at the processor.
- If ISQXPAP fails, the 9021, 9121, or 3090 system console screen may be left in a full-screen mode with the LPDEF frame displayed. In this full-screen mode, the cursor is not positioned in the normal input area (line 23) and manual intervention using the ISQSEND command or the pass-through facility may be needed to restore the screen.

Return Codes

- | | |
|----|--|
| 0 | The ISQXPAP command completed successfully. |
| 1 | You used syntax that is not valid, specified a target system name that is not valid, specified a target system that is not initialized, or specified an LPAR name that could not be found on the LPDEF screen. |
| 2 | The target hardware on which the specified target system is defined is not in logical partition mode or is an invalid processor type. |
| 3 | A problem occurred during the processing of the ISQSEND command or the ISQXFRM command. |
| 4 | There was no matching partition name on the LPDEF screen. |
| 5 | A problem occurred with the ISQSEND command sending the 9021, 9121, or 3090 DEACTLP SLC or the 9021, 9121, or 3090 ACCESS frame. |
| 6 | A problem occurred during the processing of ISQSEND for the #DATA command. |
| 7 | There was a problem entering the X1 response to a prompt from the 9021, 9121, or 3090 system console to accept activation of the logical partition. |
| 8 | There was no response from the processor operations PC for the command. |
| 9 | A problem occurred during the checking of the LPDEF screen by the ISQXDLP command. |
| 10 | There was a problem with the NetView CNMLOCK service. |
| 16 | The console was locked by another task. |
| 32 | The processor operations environment does not exist; the ISQXPAP command was not processed. |

ISQXPOR

Purpose

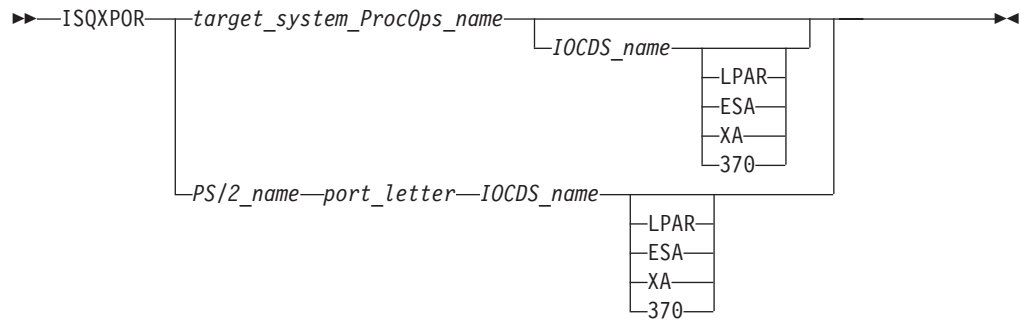
The ISQXPOR command performs a power-on reset (POR) function.

Note: The ISQXPOR command is not supported for OCF-based processors. Similar function is provided by the ACTIVATE common command.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name (the active system console will be used), the other way is to specify the PC name and port letter.

Specifying the PC name and port letter is not recommended. It is supported only for migration from ISCF.



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The system console function must be assigned.
- The system console must not be locked by another task.
- The *target_system_ProcOps_name* syntax requires that the addressed target system be initialized.
- The *PS/2_name* syntax requires that the addressed port be a system console port.

Parameters

target_system_ProcOps_name

Is the name of the target system for the system console port.

IOCDs_name

Is the name of the I/O Configuration Data Set (IOCDs) that is to be selected. *IOCDs_name* is the name of the data set in the list that is displayed on the IOCDsM frame.

LPAR

Specifies the 9021, 9121, or 3090 processor is to power-on reset in LPAR mode. This parameter is optional; if not specified, the value defined in the configuration dialogs is used. If this mode is specified, the *IOCDs_name* must also be specified.

ESA

Specifies the 9021, 9121, or 3090 processor is to power-on reset in ESA mode. This parameter is optional; if not specified, the value defined in the configuration dialogs is used. If this mode is specified, the *IOCDs_name* must also be specified.

Note: For a TPF system, specify ESA.

XA

Specifies the 9021 or 3090 processor is to power-on reset in XA mode. This parameter is optional; if not specified, the value defined in the configuration dialogs is used. If this mode is specified, the *IOCDs_name* must also be specified.

370

Specifies the 3090 processor is to power-on reset in 370 mode. This

ISQXPOR

parameter is optional; if not specified, the value defined in the configuration dialogs is used. If this mode is specified, the *IOCDS_name* must also be specified.

PS/2_name

Is the name of the processor operations PC for the system console port.

port_letter

Is a 1-character port identifier for the system console.

Defaults

IOCDS_name and the processor mode (XA, ESA, LPAR, or 370) default to values specified in the configuration dialogs during installation.

Usage

Use this command to recover from error conditions that cannot be resolved by performing a system reset or when changing the operating environment of a target system.

This command causes the specified target system to perform a power-on reset procedure.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- The ISQXPOR command is not supported for 4381, 308x, or OCF-based processors.
- The *IOCDS_name* parameter is required when using the *PS2_name port_letter* syntax.
- IOCDS names on 9021, 9121, or 3090 processors must be unique; otherwise, the first of the duplicate names will be used.
- IOCDS names used within processor operations must not contain blanks.

Return Codes

- | | |
|----|---|
| 0 | The ISQXPOR command completed successfully. |
| 2 | You used syntax that is not valid or the status of the specified target system is not acceptable for performing a power-on reset process. |
| 4 | An internal error occurred. |
| 6 | The system console was locked by another task. |
| 8 | The specified port was not a system console port. |
| 9 | Communications task not active. |
| 10 | The target hardware on which the specified target system is running is not a 9021, 9121, or 3090 processor. |
| 12 | A problem occurred during the processing of the ISQXFRM command. |
| 14 | A problem occurred during the processing of the ISQXASN command. |
| 16 | A problem occurred during the processing of the ISQSEND command. |
| 18 | There was a configuration frame problem. |
| 20 | There was an IOCDSM frame problem. |
| 22 | The power on reset process failed. |
| 24 | There was a problem reading the frame. |
| 32 | The processor operations environment does not exist; the ISQXPOR command was not processed. |

ISQXSLP

Purpose

The ISQXSLP command sets the current logical partition for system console operations.

Note: The ISQXSLP command is not applicable for OCF-based processors.

Syntax

```
►►—ISQXSLP—target_system_ProcOps_name—◄◄
```

Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed target system must be initialized.
- The system console must not be locked by another task.
- The addressed target system must be associated with target hardware operating in LPAR mode.

Parameters

target_system_ProcOps_name

Is the name of the target system for which the current logical partition is being set.

Defaults

None.

Usage

The ISQXSLP command defines the logical partition to which partition-sensitive keys and commands sent to the system console apply. The ISQXSLP command uses the configuration dialog definition for the specified target system to determine the name of the logical partition to define as the current logical partition.

Issue the ISQXSLP command before using the ISQSEND command (described on page 296) to issue processor commands or service language commands to a specific logical partition. Also issue the ISQXSLP command before issuing the *PS/2_name* form of processor operations commands related to logical partitions to make sure you are issuing them to the desired logical partition.

Restrictions and Limitations

The ISQXSLP command is valid for logically partitioned 9021, 9121, and 3090 processors only.

Return Codes

- | | |
|---|---|
| 0 | The ISQXSLP command completed successfully. |
| 4 | You specified: <ul style="list-style-type: none"> • A syntax that is not valid |

ISQXSLP

- A target system name that is not valid
 - A PC name that is not valid
 - A port that was not a system console port
 - A target system running on hardware that is not in LPAR-mode
 - A target system that is not initialized
 - A target system associated with invalid hardware
- 8 A problem occurred during the processing of the ISQSEND command.
- 12 A problem occurred with the ISQSEND command sending the 9021, 9121, or 3090 SETLP SLC, or a problem occurred during the processing of the SETLP SLC.
- 16 The console was locked by another task.
- 32 The processor operations environment does not exist; the ISQXSLP command was not processed.

ISQXUNL

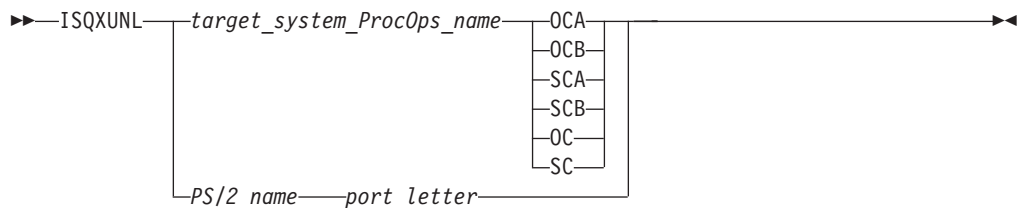
Purpose

The ISQXUNL command cancels a console lock instituted by the ISQXLOC command.

Syntax

There are two ways to designate a specific port on a processor operations PC. One way is to specify the target system name and console designator; the other way is to specify the PC name and port letter.

Note: Specifying the PC name and port letter is not recommended and is supported only for migration from ISCF.



Requirements

The requirements for this command to complete successfully are:

- Processor operations must be active.
- The addressed console must not be locked by another task.
- The *target_system_ProcOps_name* syntax requires that the addressed target system be initialized.
- The *PS/2_name* syntax requires that the addressed port be associated with a target system that has been initialized.

Parameters

target_system_ProcOps_name

Is the name of the target system for the specified console.

OCA

Specifies the active operator console (not valid for the coupling facility).

OCB

Specifies the backup operator console (not valid for the coupling facility).

SCA

Specifies the active system console (not valid for OCF-based processors).

SCB

Specifies the backup system console (not valid for OCF-based processors).

OC

Specifies the active operator console (not valid for the coupling facility).

SC

Specifies the active system console (not valid for OCF-based processors).

PS/2_name

Is the name of the processor operations PC.

port_letter

Is the port identifier.

Defaults

None.

Usage

The ISQXUNL command removes a console lock established by the ISQXLOC command (described on page 334). Any change in lock status is reflected in the status facility.

Restrictions and Limitations

The ISQXUNL command is effective only when issued from the same task that issued ISQXLOC to establish the console lock.

Return Codes

- 0 The ISQXUNL command completed successfully.
- 4 The specified console was not locked.
- 8 One of the following was specified:
 - Invalid syntax
 - Invalid target system name
 - Invalid PC name
 - Invalid PC port
 - Target system that is not initialized
- 12 The console is locked by another task.
- 32 The processor operations environment does not exist; the ISQXUNL command was not processed.

For return codes greater than 12 that are not listed, a NetView CNMLOCK service problem occurred.

ISQXUNL

PC Focal-Point Port Commands

You issue PC focal-point commands to the PC focal-point port. PC focal-point commands are not preceded by a pound sign (#).

DEFINE PC

Purpose

The DEFINE PC command defines the processor operations PC control port.

Syntax

```
▶▶ [ISQSEND ps/2_name port_letter] DEFINE PC port_letter [comment] ▶▶
```

Requirements

The requirements for this command to complete successfully are:

- The *ISQSEND PS/2_name* syntax is required when issuing this command from the focal-point system.
- This must be the first command issued from a PC profile.
- This command must be issued to the focal-point port or from a processor operations PC profile.

Parameters

port_letter

Identifies the PC control port.

comment

Is displayed as a title in the processor operations PC control port window. It also appears on the QUERY PORT command as a comment.

Defaults

None.

Usage

Use this command to define a processor operations PC control port. This creates a PC control port window on the PC. The control port allows you to enter processor operations commands from the PC.

Restrictions and Limitations

This command can only be used in a PC profile or issued from a focal-point port.

Attention: Issuing this command can disrupt processor operations automation in progress.

DEFINE PC

Return Codes

- 0 The command completed successfully.
- 1 The command did not complete successfully.

PC Control Commands

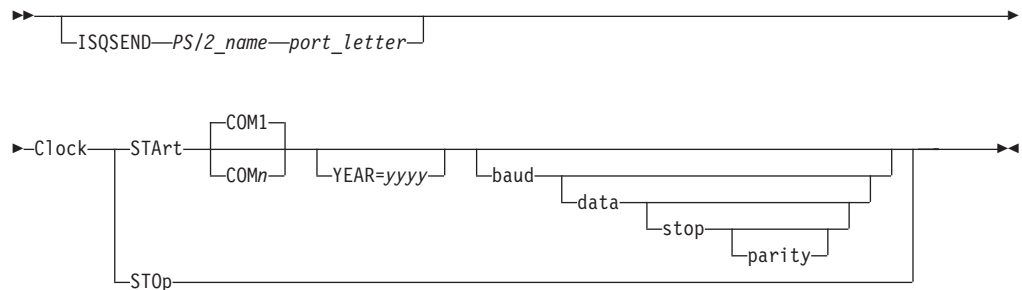
You issue PC control commands to the PC control port. The PC control port controls the PC and its interfaces with the focal-point system and the target system. PC control commands are not preceded by a pound sign (#).

CLOCK

Purpose

The CLOCK command starts or stops the external (WWV) clock routine.

Syntax



Requirements

The *ISQSEND PS/2_name* syntax is required when issuing this command from the focal-point system.

The *baud*, *data*, *parity*, and *stop* values must match the values being used by the external clock for the clock program to function properly. If these values are not correct, the command will complete successfully, but the clock program will not be able to get the time.

Parameters

STArt

Indicates the external clock routine is being started.

COM1

Identifies the PC COM1 port as the source of the WWV signal used by the external clock routine. This is the default.

COM n

Identifies the PS/2 COM port that is the source of the WWV signal used by the external clock routine, where n is 1, 2, or 3.

YEAR=yyyy

Specifies the number the clock program is to use for the current year, where *yyyy* is the number to use. This value is used with external clocks that do not transmit the year (the Spectracom** without option 30).

CLOCK

baud

Identifies the baud rate at which the external clock signal is being sent to the processor operations PC. The default is 9600.

data

Identifies the number of data bits comprising the data word sent from the external clock to the processor operations PC. The default is 8.

stop

Indicates the number of stop bits being used by the external clock. The default is 1.

parity

Identifies the type of parity being used by the external clock, as follows:

- | | |
|---|--------------------------------|
| 0 | None |
| 1 | Odd |
| 2 | Even |
| 3 | Mark (parity bit is always 1) |
| 4 | Space (parity bit is always 0) |

The default is 0.

STOp

Indicates that the external clock routine is being stopped.

Defaults

This command has the following defaults:

- CLOCK START defaults to COM1
- The baud rate defaults to 9600
- The number of data bits per word defaults to 8
- The number of stop bits defaults to 1
- The number of parity bits defaults to 0

Initial Setting: The clock is initially stopped.

Usage

This command lets you stop using a WWV signal to synchronize the processor operations PC clock if something goes wrong with it, and then start using it again when it is fixed. The WWV signal is a United States National Institute of Standards and Technology radio time source that pulses once a second.

Restrictions and Limitations

You cannot start a clock routine that is already running. If you want to change a setting, you must stop the clock routine first and then start the routine with the new values. (The SHUTDOWN command, described on page 373, stops the clock routine.)

Caution: This command can affect processor operations automation.

Return Codes

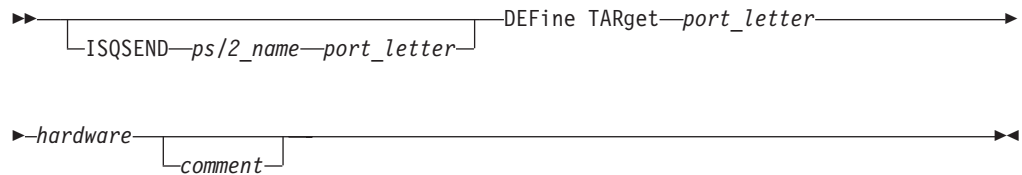
- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

DEFINE TARGET

Purpose

The DEFINE TARGET command defines a target port.

Syntax



Requirements

The requirements for this command to complete successfully are as follows:

- The *ISQSEND PS/2_name* syntax is required when issuing this command from the focal-point system.
- Issue the DEFINE PC command before issuing this command.
- The port defined must be the control port.

Parameters

port_letter

Identifies the PC target port that is being defined. Anything displayed on the console at the target system is sent through this port.

hardware

Is the name of the adapter card that is used to connect the target systems consoles. The following values are allowed for this variable:

CUT n

Identifies the 3270 emulator adapter card, where n is 1, 2, 3, or 4. These values correspond to the first, second, third, and fourth numbers assigned by the PC Reference Diskette. If the PC Reference Diskette designates the card number as the *only choice*, specify the card number as 1. The IBM 3270 emulator adapter card version A must be defined as the first 3270 emulator card.

The PC Reference Diskette may not display the “Resource Used” as the first, second, third, or fourth numbers, but may instead display an I/O address. The I/O address corresponds to the “Resource Used”, as follows:

Resource Used I/O Address

Only Choice	02D0h–02DFh (3270 Connection Version A)
First	02D0h–02DFh
Second	06D0h–06DFh
Third	0AD0h–0ADFh
Fourth	0ED0h–0EDFh

LINE n

Identifies the ASCII card that provides the console connection. The values for n are 1, 2, and 3, identifying COM1, COM2, and COM3, respectively.

DEFINE TARGET

FS_COM n

Identifies the communication port for the 3151 emulator. The values for n are 1, 2 and 3, identifying COM1, COM2, and COM3, respectively.

comment

Is returned on a QUERY PORT command and displayed on an EMULATE or DISPLAY window on the PC.

Defaults

None.

Usage

Use this command to define a target port connected to the target system that you intend to operate or monitor. If this is the first time the command is issued, the port that issues the DEFINE TARGET command becomes the active port for the defined port. Any messages issued from the target system are routed to the port that issued this command.

Restrictions and Limitations

The *port_letter* that you define must be unique. If the *port_letter* already exists, you must issue the DELETE PORT command before the DEFINE TARGET command.

Attention: Issuing this command can disrupt processor operations automation in progress.

Return Codes

- 0 The command completed successfully.
- 1 The command did not complete successfully.

DISPLAY

Purpose

The DISPLAY command puts the processor operations PC in an output-only passthru mode for the specified port.

Syntax

```
▶▶—Display—port_letter—┌"title"┐▶▶
```

Requirements

The specified *port_letter* must be a full-screen port (and console) for this command to complete successfully.

You can identify the type of a port by issuing the QUERY command, described on page 365. Issue the QUERY command using the following syntax to get port type information:

```
ISQSEND PS/2_name port_letter Query Port port_letter
```

Parameters

port_letter

Identifies the PC port to which the command is being issued (and thus the target system to be monitored). Anything displayed on the console at the target system is sent through this port to the PC display.

"title"

Identifies a title to be displayed on the screen. You must include straight double quotes (") before and after this parameter. The default is to use *processor operations-PS/2* followed by the port letter of the focal-point port and a colon as a title.

Defaults

This command defaults to using *processor operations-PS/2* followed by the port letter of the focal-point port and a colon as a title.

Usage

You can use this command to make the processor operations PC screen appear to be the screen of the console at the target system. You might want to do this when you are performing functions at the target system which must be closely monitored, when more specific information is required than is provided by the processor operations status facility.

This command establishes a passthru session referred to as a monitor session. This is to differentiate the session from a full passthru session. The monitor session does not disable or enable screen handler functions as it is established or ended.

For details on the user interface for a Display passthru session, refer to *System Automation for OS/390 User's Guide*.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- You issue this command from the PC keyboard only.
- This command will fail if a Display or Emulate session is already active for the specified port.
- You cannot establish a passthru connection to the operator console of a VSE target system operating in the unattended node support mode.

Caution: This command can affect processor operations automation.

Return Codes

- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

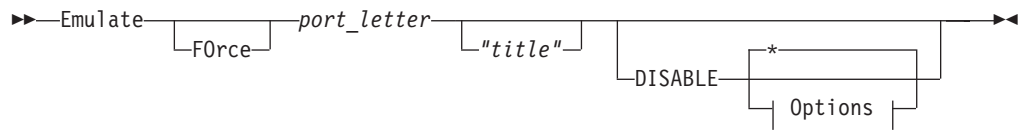
EMULATE

Purpose

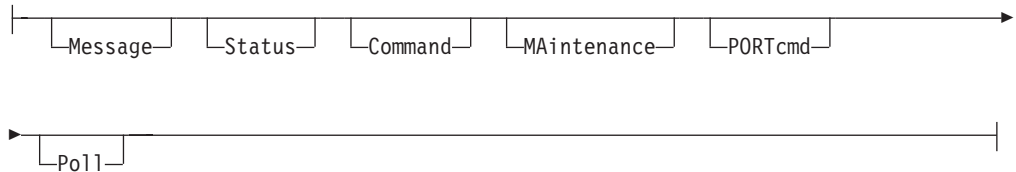
The EMULATE command puts the processor operations PC in a full passthru mode for the specified port.

EMULATE

Syntax



Options:



Requirements

Issue the SET ACTIVE command to make the control port the active focal-point port before issuing this command.

The specified *port_letter* must be a full-screen port (and console) for this command to complete successfully. To obtain port type information, issue the QUERY command, described on page 365, using the following command syntax:

```
ISQSEND PS/2_name port_letter Query Port port_letter
```

Parameters

FOrce

Lets you issue the EMULATE command without issuing the SET ACTIVE command to make the control port the active focal-point port first. (This keyword does not make the control port the active focal-point port.)

port_letter

Identifies the PC port to which the command is being issued (and thus the target system with which the passthru session is being established). Anything displayed on the console at the target system is sent through this port to the PC display. Commands entered at the PC keyboard are sent through this port to the target system and are accepted as if they were entered at the keyboard of the console at the target system.

title

Identifies a title to be displayed on the screen. You must include straight double quotes (") before and after this parameter. The default is to use the processor operations PC followed by the port letter of the focal-point port and a colon as a title.

DISABLE

Disables screen handler functions for the duration of the passthru session. It can be followed by any of the keywords that are valid for the #DISABLE command. Refer to *System Automation for OS/390 Programmer's Reference* for further information. Any number of those keywords can be specified, in any order; they are separated by one blank space. Specifying DISABLE without any keywords following it disables all screen handler functions.

- * Disables all screen handler functions. This is the default value.

Message

Specifies that target system messages should not be sent to processor operations.

Status

Specifies that status messages generated by the processor operations PC should not be sent to processor operations.

Command

Specifies that commands should not be sent to the console at the target system.

MAintenance

Specifies that the screen should not be cleared. Normally, the appropriate command clears the message line from the processor operations PC after the message line has been sent to the NetView console. This keyword allows you to disable this function so you can perform a dump of the PC screen when you are in passthru mode. (See the restrictions and limitations for this command.)

PORTcmd

Specifies that screen handler commands should not be processed.

Poll

Specifies that the target system should not be polled.

Defaults

This command defaults to using the processor operations PC followed by the port letter of the focal-point port and a colon as a title.

Specifying DISABLE defaults to disabling all screen handler functions. None of the functions are disabled if it is not specified.

Usage

This command lets you issue commands to a target system from the PC keyboard and have them recognized as if they were typed on the console at the target system. This command also lets you see the information displayed on the console screen at the target system.

Any screen handler functions that you disable when you issue this command are automatically enabled again when you end the passthru session.

For details on the user interface for an Emulate passthru session, refer to *System Automation for OS/390 User's Guide*.

This command is provided to let you continue to control critical target systems when the focal-point system is not available.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- You issue this command from the PC keyboard only.
- This command conforms to the limitation of only one passthru session per port.
- This command fails if a Display or Emulate session is already active for the specified port. This command also fails if the passthru session to the specified port was established by the ISQTCC command (described on page 305).

EMULATE

- You cannot establish a passthru connection to the operator console of a VSE target system operating in the unattended node support mode.

Caution: This command can affect processor operations automation.

Return Codes

- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

END PASSTHRU

Purpose

The END PASSTHRU command ends a passthru session established by the EMULATE command (described on page 359), by the DISPLAY command (described on page 358), or by the ISQTCC command (described on page 305).

Syntax

```
ISQSEND—ps/2_name—port_letter—END PASSTHRU FOR—target_port—
*
origin_port—session_id—
*—*—
```

Requirements

The *ISQSEND PS/2_name* syntax is required when issuing this command from the focal-point system.

Parameters

target_port

Identifies the PC port connected to the target system with which the passthru session is established. An asterisk (*) specifies all PC ports, meaning any passthru session to a target connected to this processor operations PC.

origin_port

Identifies the PC port from which the passthru session was initiated. This can be the focal-point port (passthru was initiated from the focal-point NetView console) or the PC control port (passthru was initiated from the PC keyboard). An asterisk (*) specifies all PC ports, meaning any passthru initiated from this processor operations PC.

session_id

Is the identifier assigned to the passthru session when it was established. (Use the QUERY PASSTHRU command to find out what the session identifier is for a specific passthru session.) An asterisk (*) specifies all session identifiers.

Defaults

None.

Usage

Use this command to recover from situations where processor operations cannot end a passthru session.

When issued from the PC control port (the PC keyboard), this command also lets you end someone else's passthru session.

This command enables any screen handler functions that were disabled when the passthru session was established with the EMULATE command (described on page 359).

Use the QUERY PASSTHRU command to see the active passthru sessions. The output from QUERY PASSTHRU also indicates which type of passthru session is enabled for a port. If a focal-point port is displayed, passthru is established using the ISQTCC command. If a control port is displayed, passthru is established using the DISPLAY or EMULATE command.

Examples

To end all passthru sessions initiated from port C of a processor operations PC, issue:

```
END PASSTHRU FOR * C *
```

To end all passthru sessions on the processor operations PC, issue:

```
END PASSTHRU FOR * * *
```

Restrictions and Limitations

None.

Caution: This command can affect processor operations automation.

Return Codes

- 0 The command completed successfully.
- 1 The command did not complete successfully.

PORT

Purpose

The PORT command issues a processor operations screen handler command to another port or the target connected to that port, or presses a key at a console connected to a port.

Syntax

```
▶▶—PORT—┐—port_letter—command—▶▶
           └─Queue─┘
```

Requirements

The port specified must be running for this command to complete successfully.

PORT

Any requirements for the accompanying command to complete successfully also apply to this command. The command being issued may require that the command come from an active port.

Parameters

QQueue

Queues a command to a port that is not running.

port_letter

Identifies the PC port to which the *command* variable is to be issued. This port is connected to the desired target system.

command

Is the processor operations screen handler command, the target system command, or the name of a key to press at the console of the desired target system.

Defaults

None.

Usage

Use this command when the focal-point system is not running and you need to issue a command to a target system but do not want to establish a pass-through session (for instance, because only one or two commands will be issued).

Examples

```
PORT A ENTER GO
```

issues ENTER GO to port A, resulting in GO being typed into the current input field of the target system whose console is connected to port A, and then pressing the Enter key at that console.

```
PORT A STOP
```

presses the stop key at the console connected to port A. Unlike the ISQSEND command, the PORT command does not use a pound sign (#) to differentiate between the name of a key and the name of an SLC; this form of the PORT command presses a key only.

```
PORT A ENTER STOP
```

issues the SLC named STOP (assuming one exists) to the target system whose console is connected to port A.

```
PORT A QUERY HOST
```

is equivalent to using the ISQSEND command to issue the #QUERY HOST screen handler command to the console connected to port A.

Note: The PORT command does not require, nor accept, the pound sign in front of the screen handler command name.

Restrictions and Limitations

You can issue this command only from the keyboard of the processor operations PC connected to the desired target system.

Issue the SET ACTIVE command to make the control port the active focal-point port before issuing this command if the accompanying command must be issued from the active focal-point port.

Caution: This command can affect processor operations automation.

Return Codes

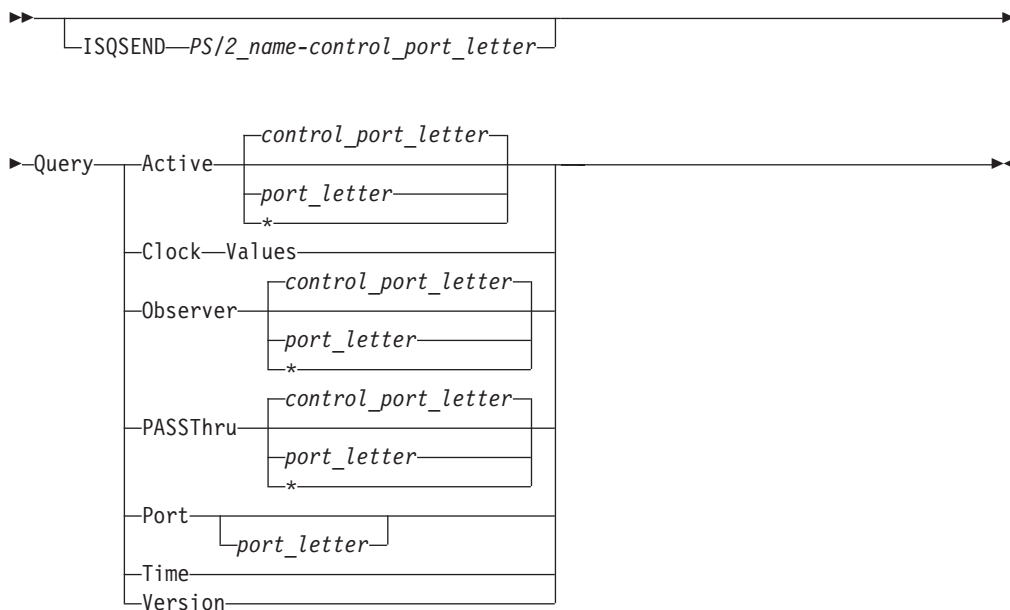
- 0 The command completed successfully. This return code is generated by the command specified on the PORT command.
- 1 The command did not complete successfully.

QUERY

Purpose

The processor operations QUERY command requests information about the settings of several control functions.

Syntax



Requirements

The ISQSEND *PS/2_name* syntax is required when issuing this command from the focal-point system.

Parameters

Active

Provides the port letter of the active focal-point port from which the addressed PC port will accept commands and to which it will send messages.

control_port_letter

Is the letter of the control port to which the command has been issued.

QUERY

port_letter

Identifies the port letter of a specific port to be queried to verify whether it is the active focal-point port.

- * Indicates all ports in the addressed processor operations PC are to be queried to identify the focal-point port in the processor operations PC.

Clock

Indicates information about the clock program is being requested.

Values

Indicates clock accuracy values, in seconds, are being queried.

Observer

Displays the port letters of the ports currently defined as observers of the specified port.

control_port_letter

Is the letter of the control port to which the command has been issued.

port_letter

Identifies the port letter of the specific active focal-point port for which the observer port is to be identified.

- * Indicates all ports in the addressed processor operations PC are to be queried to identify the observer ports of the focal-point port in the processor operations PC.

PASSthru

Indicates information about pass-through sessions is being requested.

control_port_letter

Is the letter of the control port to which the command has been issued.

port_letter

Specifies the port through which a pass-through session has been established for which you want information. This variable defaults to the control port.

- * Indicates all ports in the addressed processor operations PC through which a pass-through session has been established are to be queried for information.

Port

Displays the ports currently defined.

port_letter

Identifies the port letter of the specific port to be queried to verify whether it has been defined, and to display the port definition (type) if it has been defined. If you do not specify this variable, all ports in the addressed PC are to be queried and their definition information displayed.

Time

Indicates time information is being requested.

Version

Displays the version numbers of the all of the PC application code subsystems that are currently running in the processor operations PC.

Defaults

The QUERY PASSTHRU command defaults to the control port of the addressed processor operations PC.

Usage

This command can be issued from the active console or the backup console.

The active focal-point port is the processor operations PC port through which the processor operations PC is to accept processor operations commands from the primary focal-point system and to which the processor operations PC is to send processor operations messages to the primary focal-point system. The observer port monitors all active focal-point port traffic and is usually connected to an alternate focal-point system.

The only command a processor operations PC will accept and process from an observer port is a SET ACTIVE command. The observer port lets an alternate focal-point system monitor the processor operations activity and, should the primary focal-point system fail, inform the processor operations PCs that the alternate focal-point system is now the primary focal-point system.

QUERY CLOCK VALUES shows you how long various time sources are considered valid without the time being set by the source.

The response to the QUERY CLOCK VALUES command is a message indicating the following:

accurate

The number of seconds the clock is considered to be accurate without receiving a signal from the WWV radio source before the clock source changes from a WWV signal to the distributed feature code updating the clock. This timer starts when the clock was synchronized with the WWV radio source before the signal was lost. After this amount of time has passed with no signal, the clock accuracy becomes *application*.

external

The number of seconds the clock is considered to be accurate without receiving a signal from the WWV radio source before the clock source changes from a WWV signal to the distributed feature code updating the clock. This timer starts when the clock was not synchronized with the WWV radio source before the signal was lost. After this amount of time has passed with no signal, the clock accuracy becomes *application*.

After having previously changed from *accurate* to *application*, this value also indicates that the WWV receiver has again received a WWV signal, but is not yet synchronized with the signal.

application

The number of seconds the clock will run without being updated by the distributed feature code before the clock is no longer considered to be valid. After this amount of time has passed with no signal, the clock accuracy becomes *not valid*.

See the SET CLOCK VALUES command (described on page 368) for more information about clock values.

QUERY PASSTHRU returns information about currently established pass-through sessions. It identifies the target port, the origin port, and the session identifier. The session identifier is required to end a pass-through session established by the EMULATE command (described on page 359) or by the DISPLAY command (described on page 358).

QUERY

One of the possible responses to the QUERY PASSTHRU command indicates *pass-through* sessions and another possible response indicates *monitor* sessions. *Pass-through* means the full pass-through session established by the EMULATE command or by the ISQTC command. *Monitor* means the pass-through session established by the DISPLAY command.

Restrictions and Limitations

When issued from automation procedures, the requested information is not displayed on a console but is sent to the target control task processing the QUERY command.

Caution: This command can affect processor operations automation.

Return Codes

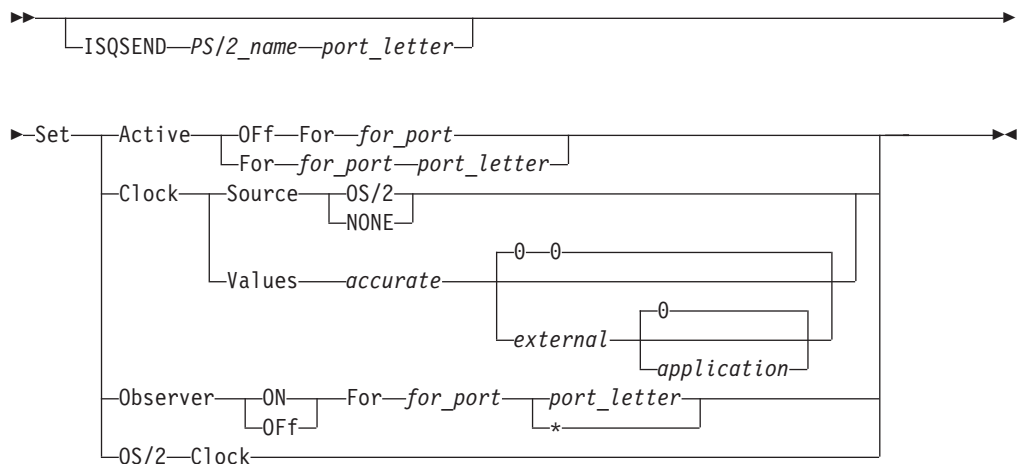
None.

SET

Purpose

The SET command defines processor operations PC parameters, including timer values and the port letter of the active focal-point system from which the addressed target system will accept commands and to which it will send messages.

Syntax



Requirements

The requirements for this command to complete successfully are:

- The ISQSEND *PS/2_name* syntax is required when issuing this command from the focal-point system.
- The *for_port* and *port_letter* ports must be defined for the SET command to complete successfully.

Parameters

Active

Indicates an active focal-point port is to be defined.

Off

Indicates there is to be no active focal-point port.

For

Indicates the following variable identifies the PC port for which the active focal-point port is being defined.

for_port

Is the port letter of a port for which the active focal-point port is being defined. An asterisk (*) indicates non-focal-point ports.

port_letter

Is the port letter of the new port to be defined as the active focal-point port. An asterisk (*) indicates the port from which this command originated is to be defined as the active focal-point port.

Clock

Indicates a clock variable is to be changed.

Source

Indicates the source of the signal that updates the clock program is being changed.

OS/2[®]

Specifies the time kept by the OS/2 program is to be used to synchronize the distributed feature code clock rather than a WWV signal. This is the default.

NONE

Specifies no source is to be used for the time and causes the clock accuracy indicated by the QUERY TIME command to indicate the clock is *not valid*.

Values

Indicates the values, in seconds, for the amount of time the clock will remain in the different levels of accuracy before being changed.

accurate

The number of seconds the clock is considered to be accurate without receiving a signal from the WWV radio source before the clock source changes from a WWV signal to the distributed feature code updating the clock. This timer starts when the clock was synchronized with the WWV radio source before the signal was lost. After this amount of time has passed with no signal, the clock accuracy becomes *application*.

external

The number of seconds the clock is considered to be accurate without receiving a signal from the WWV radio source before the clock source changes from a WWV signal to the distributed feature code updating the clock. This timer starts when the clock was not synchronized with the WWV radio source before the signal was lost. After this amount of time has passed with no signal, the clock accuracy becomes *application*.

application

The number of seconds the clock will run without being updated by the distributed feature code before the clock is no longer considered to be valid. After this amount of time has passed with no signal, the clock accuracy becomes *not valid*.

SET

Observer

Indicates an observer port is to be set.

ON

Indicates that an observer port is being defined.

OFF

Indicates that an observer port is being undefined.

For

Indicates that the following variable identifies the PC port that the observer port currently being defined is to monitor.

for_port

Is the port letter of the active port which is to be observed.

port_letter

Is the port letter of the port to monitor the active focal-point port. An asterisk (*) indicates the port from which this command originated is to be defined as the observing port.

OS/2

Indicates an OS/2 variable is being set.

Clock

Indicates the clock maintained by the OS/2 program is to be set to the current time according to the values in the distributed feature code clock.

Defaults

Set CLOCK SOURCE defaults to the OS/2 parameter.

Initial Settings:

When processor operations is first started, the clock values are initially set as follows:

accurate=5 minutes

external=5 minutes

application=0 minutes

The initial setting of 0 prevents the clock accuracy from being designated *not valid*.

Usage

The active focal-point port is the processor operations PC port through which the processor operations PC will accept processor operations commands from the primary focal-point system and to which the processor operations PC will send processor operations messages to the primary focal-point system. The observer port monitors all active focal-point port traffic and is usually connected to an alternate focal-point system.

You can use the SET ACTIVE command as part of the procedure of switching from the primary focal-point to an alternate focal-point system. If you have redundant focal-point systems in your configuration, you can also use this command to designate the focal-point system that is actively controlling the configuration. This command is normally issued during initialization based on the configuration dialog information.

If the port that was set to be the active focal-point port was already on the observer list, the SET ACTIVE command removes it from the observer list. The command SET ACTIVE OFF purges the active queue.

The command SET OBSERVER ON lets an alternate focal-point system monitor the processor operations activity through the observer port. The only command a processor operations PC will accept and process from an observer port is a SET ACTIVE command. Should the primary focal-point system fail, this lets the alternate focal-point system inform the processor operations PCs that the alternate focal-point system is now the primary focal-point system.

SET CLOCK SOURCE sets the source of the clock signal to the OS/2 clock rather than WWV, or sets the clock source to none (making the accuracy *not valid*). However, you will probably have to stop the external clock routine (use the CLOCK STOP command described on page 355) for SET CLOCK SOURCE to stay at OS/2 or NONE. Otherwise the clock source will revert to the most accurate source available.

The OS/2 clock is used for time-stamping PC files, but is not usually accurate enough for setting the time on target systems or for triggering automation procedures. If something goes wrong with your external clock (WWV), you might want to use the OS/2 clock instead.

If the OS/2 clock is too inaccurate, you might prefer to set the clock source to *none* rather than maintain inaccurate time values that will probably vary among the various processor operations PCs you are using. This means a request for the current time will result in a display of ???:???:???

SET OS/2 CLOCK sets the OS/2 clock to the current time as maintained in the distributed feature code. The OS/2 clock is normally used only to time-stamp OS/2 files.

SET CLOCK VALUES sets the time periods used to indicate the accuracy of the distributed feature code clock. Figure 127 on page 372 shows the relationships of the four clock values and their effect on the status indicated when you issue QUERY CLOCK VALUES:. The vertical arrow pointing down indicates the last time the distributed feature code clock was set. Each of the values is described in the following paragraphs.

When a WWV signal is being used, the external clock is the WWV receiver. The external clock normally sets the distributed feature code clock in the processor operations PC every second. Three consecutive WWV signals are required for the external clock to consider itself synchronized with the WWV signal. When sending the time to the processor operations PC, some WWV receivers also indicate whether the receiver is synchronized with the WWV radio signal. The distributed feature code clock program makes use of this indication. When the clock program sets the distributed feature code clock, it also sets the source to either *accurate* or *external*, depending on whether the WWV receiver is synchronized with the WWV signal.

If more than the amount of time assigned to *accurate* has passed since the external clock (the WWV receiver) last sent a time signal to the processor operations PC, the distributed feature code sets the clock accuracy to *application*—indicating the clock is no longer synchronized with the WWV signal and the distributed feature code is now the source of the time. The distributed feature code clock program is still looking for an external synchronization signal.

If the distributed feature code clock later receives a signal from the external clock, the distributed feature code sets the accuracy to *external* until the WWV receiver

SET

indicates it is again synchronized with the WWV radio signal, at which time the distributed feature code sets the clock accuracy back to *accurate*.

external is the amount of time the clock can run without a signal from the WWV before the distributed feature code sets the clock accuracy to *application*—meaning the distributed feature code is maintaining the time.

The *accurate* timer indicates the clock was synchronized with the WWV signal when the WWV signal was lost. The *external* timer indicates the clock was not synchronized with the WWV signal when the WWV signal was lost.

application is the amount of time the external clock program can run without being updated by the distributed feature code before the distributed feature code sets the clock accuracy to *not valid*. This means a request for the current time will result in a display of `???:???:???`. If this happens, issue `Clock Stop` and then `Set Clock Source OS/2` to maintain some indication of the current time. This causes the clocks to run off of the individual clocks in the processor operations PCs. However, the processor operations PCs are not synchronized with each other.

Last time external clock sent a time to the PC Compute

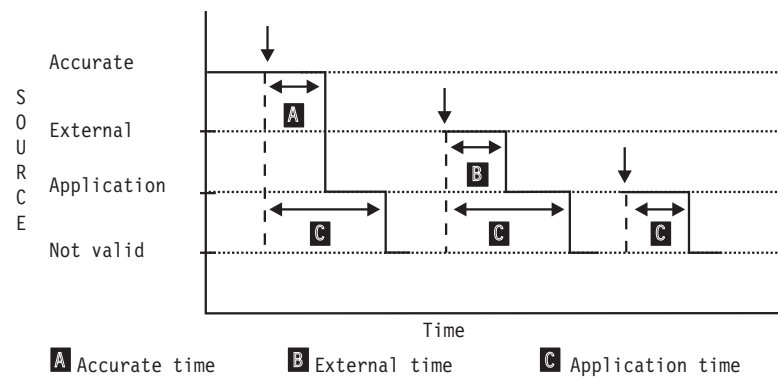


Figure 127. Clock Values and Their Effect on Clock Status

Restrictions and Limitations

The following restrictions and limitations apply to this command:

- You can designate only one active focal-point port per PC port.
- When you issue `SET ACTIVE` to make an observer port the active focal-point port, the observer port is dropped from the observer list as it is made the active port.
- You will probably have to stop the external clock routine (use the `CLOCK STOP` command described on page 355) for `SET CLOCK SOURCE` to stay at `OS/2` or *none*.

Caution: This command can affect processor operations automation.

Return Codes

- 0 The command completed successfully.
- 1 The command did not complete successfully.

Examples

```
isqsend london c set active for s a
```


SHUTDOWN

Cautions:

1. Only the focal-point system can start the distributed feature code again after a shutdown.
2. This command can affect processor operations automation.

Return Codes

- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

PC Screen Handler Commands

You issue PC screen handler commands to target ports, PC ports which appear to a target system as an attached console. These are the ports that correspond to the console designators SC, and OC. The target ports run screen handler software that lets them communicate correctly with the target system's operating system and with the type of processor on which the target system is running. PC screen handler commands are always preceded by a pound sign (#).

#DATA

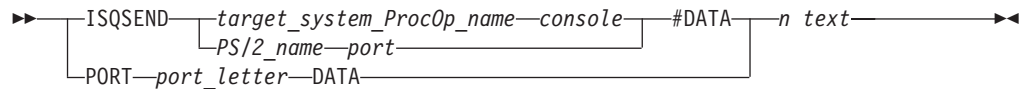
Purpose

The #DATA screen handler command enters data into an input field for a console at a target system. The appropriate screen handler places the data into a buffer, but does not send it to the target system. After all the input fields have been filled in using this command, issue:

```
ISQSEND target_system_processor operations_name console_designator #ENTER
```

to send the contents of the modified input fields to the target system and to simulate pressing the Enter console key at the target system.

Syntax



Requirements

The active console port must have been started for this command to complete successfully.

The target port must be enabled for commands and screen handler commands (see the #DISABLE and #ENABLE commands described on page 377 and on page 379).

Parameters

n Specifies the input field number. A value of zero indicates the current input field.

text

Is the text to be typed into the specified input field.

Defaults

None.

Usage

Use the #DATA command to place data into multiple input fields of full-screen panels before having the data entered at the target system. You do not have to be

#DATA

concerned about cursor placement, because you specify the number of the input field into which the data is to be placed (with the first input field on the panel being 1).

You can specify input fields in any order; that is, you can specify data for input field 1, then input field 6, then input field 2, and so on, as long as you do not simulate pressing the Enter key at the target system between #DATA commands.

You can use the #QUERY command (issue #QUERY INPUT) to find all the input fields. The input field is padded with nulls if it is longer than the specified text. The text is truncated if the input field is shorter than the specified text (this action results in a warning message).

Blanks in the specified *text* are significant. For example, if input field 1 is 4 characters long, then the following commands provide the indicated results:

Note: The underscore characters in the examples represent blanks.

#DATA_1_2222 places 2222 in the input field.

#DATA_1__2222 places 222 (there is a blank in front of the first 2) in the input field and generates a warning that truncation occurred.

#DATA_1_2222_ places 2222 in the input field and generates a warning that truncation occurred.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- It can be issued only from an active console at the primary focal-point system.
- It is not valid for TPF asynchronous screen handlers.
- If you issue this command while the target system is updating the screen, you may have to issue this command again for it to take effect.
- Not specifying the # before the keyword *data* causes all text following and including the keyword DATA to be sent to the specified target system as if it is a valid processor command string. In such an instance, ISQSEND also simulates pressing the Enter key at the specified target system.

Caution: This command can affect processor operations automation.

Examples

If you forget the # symbol when issuing a screen handler command, the processor operations PC will send the command to the target system as a processor command. For example, the #DATA command: ISQSEND PS/2_name port_letter #DATA 3 NEPTUNE will cause the processor operations PC to type the text *NEPTUNE* into the third input field of the currently active panel. However, issuing: ISQSEND PS/2_name port_letter DATA 3 NEPTUNE will cause the processor operations PC to send *DATA 3 NEPTUNE* to the target system and simulate pressing the Enter key at the target system. DATA is most probably not a valid command at the target system and would thus generate an error message.

Return Codes

- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

#DISABLE

Purpose

The #DISABLE screen handler command disables screen handler functions for the specified console. It can disable some or all of the screen handler functions. A disabled screen handler does not automatically send target or status messages to processor operations, nor does it automatically send target system commands to a target system. Screen handler commands may still be issued to the same console unless the PORTcmd keyword is specified.

Syntax

```
ISQSEND target_system_ProcOp_name console #DISABLE
        PS/2_name port
PORT port_letter DISABLE
```

```
*
Options
```

Options:

```
Message Status Command MAintenance PORTcmd
Poll
```

Requirements

The addressed port must be running for this command to complete successfully.

Parameters

* Disables all screen handler functions. This is the default value.

Message

Specifies that target system messages should not be sent to processor operations.

Status

Specifies that status messages generated by the processor operations PC should not be sent to processor operations.

Command

Specifies that commands should not be sent to the console at the target system.

MAintenance

Specifies that the screen should not be cleared. Normally, the appropriate command clears the message line from the processor operations PC after the message line has been sent to the NetView console. This keyword allows you

#DISABLE

to disable this function so you can perform a dump of the PS/2 screen when you are in pass-through mode. (See the restrictions and limitations for this command.)

PORTcmd

Specifies that screen handler commands should not be processed.

Poll

Specifies that the target system should not be polled.

Defaults

Issuing the #DISABLE command without specifying any parameters disables all functions for the specified console.

Initial settings are:

Message	Enabled
Status	Enabled
Command	Disabled
MAintenance	Disabled
PORTcmd	Enabled
Poll	Disabled

Usage

More than one function may be specified.

This command lets you control the flow of messages. For example, if you do not want to see any messages from the target system, but still want to be notified of a DCCF screen, then you can issue the following commands:

```
#disable message
```

```
#enable status
```

The #DISABLE command also lets you control the flow of commands to a specific target system and to specific screen handlers.

Typically, all screen handler functions should be enabled on the processor operations PC. The screen handler functions may need to be disabled on a back-up 4381 port, on a port before the physical connection is broken, or when the processor operations PC is to accept target system messages but not forward them to processor operations.

The ISQTC command (described in *System Automation for OS/390 Operator's Commands*) disables the MAINTENANCE and POLL functions when used to establish a pass-through session through a port, and enables them again when the pass-through session is ended.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- You can issue this command only from the active console when the port is running, but you can issue this command from any console when the port is stopped.
- You cannot disable the sending of the #ENABLE command.
- You cannot disable the PC control port.

#DISABLE

- When you issue a #DISABLE command while in full pass-through mode (established by the ISQTEC command), you must exit pass-through mode to re-enable the same component.
- Full pass-through mode disables the maintenance keyword by default.

Cautions:

1. If a console is varied offline and the POLL keyword is on, the target system can cause hot I/O conditions unless you disable the poll keyword.
2. The MAINTENANCE keyword should be enabled while the console is online, except when establishing a full pass-through session with the console. When establishing a full pass-through session with a console, use the disable keyword of the EMULATE command if you are using a PS/2 keyboard to disable the MAINTENANCE keyword. If this keyword is used to disable the MAINTENANCE keyword, the MAINTENANCE keyword will automatically be enabled when the full pass-through session is ended.

The MAINTENANCE keyword clears the operator console at the target system. The target system can halt if the console is not cleared.

Return Codes

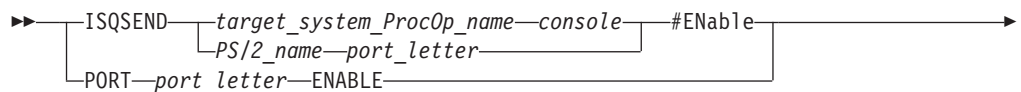
- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

#ENABLE

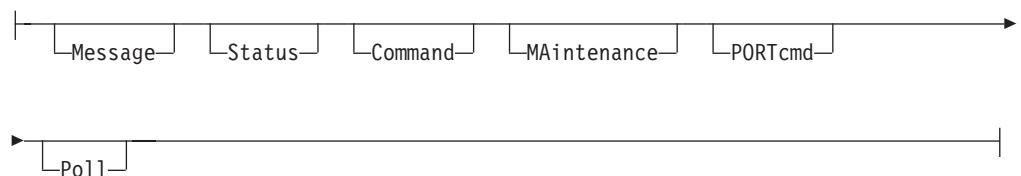
Purpose

The #ENABLE screen handler command enables some or all screen handler functions for the specified console. When the screen handler is enabled, status and target system messages are sent to processor operations and automatic screen maintenance is performed.

Syntax



Options:



#ENABLE

Requirements

The addressed port must be running for this command to complete successfully.

Parameters

- * Enables all screen handler functions. This is the default value.

Message

Specifies that target system messages should be sent to processor operations.

Status

Specifies that status messages generated by the processor operations PC should be sent to processor operations.

Command

Specifies that commands should be sent to the console at the target system.

MAintenance

Specifies that the screen should be cleared. Normally, the appropriate command clears the message line from the processor operations PC after the message line has been sent to the NetView console. The #DISABLE command allows you to disable this function so you can perform a dump of the PS/2 screen when you are in pass-through mode. This keyword enables clearing of the screen again. (See the restrictions and limitations for this command.)

PORTcmd

Specifies that screen handler commands should be processed.

Poll

Specifies that the target system should be polled.

Defaults

Issuing the #ENABLE command without specifying any parameters enables all functions for the specified console.

Initial Settings:

Message	Enabled
Status	Enabled
Command	Disabled
MAintenance	Disabled
PORTcmd	Enabled
Poll	Disabled

Usage

More than one function may be specified.

This command lets you control the flow of messages. For example: if you do not want to see any messages from the target system, but still want to be notified of a DCCF screen, then you can issue the following commands:

```
#disable message  
#enable status
```

The #ENABLE command also lets you control the flow of commands to a specific target system and to specific screen handlers.

Typically, all screen handler functions should be enabled on the processor operations PC. The screen handler functions may need to be disabled on a back-up

4381 port, on a port before the physical connection is broken, or when the processor operations PC is to accept target system messages but not forward them to processor operations.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

When you issue an #ENABLE command while in full pass-through mode (established by the ISQTC command), the enable does not take effect until you exit pass-through mode.

Cautions:

1. If a console is varied offline and the POLL keyword is on, the target system can cause hot I/O conditions unless you disable the poll keyword.
2. The MAINTENANCE keyword should be enabled while the console is online, except when establishing a full pass-through session with the console. When establishing a full pass-through session with a console, use the DISABLE keyword of the EMULATE command to disable the MAINTENANCE keyword. If this keyword is used to disable the MAINTENANCE keyword, the MAINTENANCE keyword will automatically be enabled when the full pass-through session is ended.

The MAINTENANCE keyword clears the operator console at the target system. The target system can halt if the console is not cleared.

Return Codes

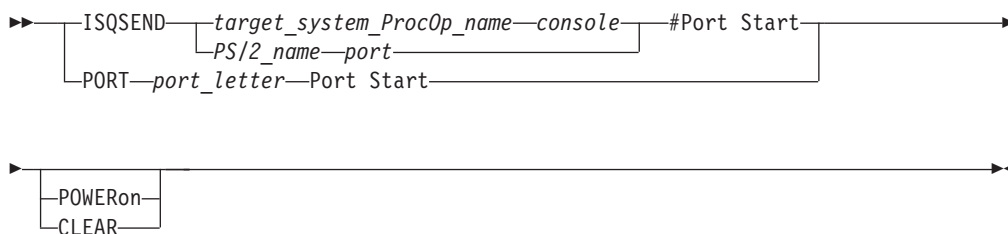
- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

#PORT START

Purpose

This command starts a port after it has been fully defined with the DEFINE TARGET and appropriate SET commands.

Syntax



Requirements

Issue the DEFINE TARGET command before issuing this command.

Parameters

POWERon

Indicates that a power-on-reset should be issued to the PS/2 connection card.

#PORT START

CLEAR

Indicates that an operator console screen should be cleared. This function clears the screen of all existing messages and therefore stops these messages from being delivered to the focal-point system.

Defaults

None.

Usage

Use this command to start a port after you fully define it.

Restrictions and Limitations

The following restrictions and limitations apply to this command:

- You can issue this command only from an active console.
- This command informs the control unit that a power-on reset is being performed, and does not respond to polls until the reset is successfully completed.

Cautions:

1. Do not issue this command to a 308x system console in mode A (system console mode). It can halt the 308x processor and require a power-on reset to restart the processor.
2. This command can affect processor operations automation.

Return Codes

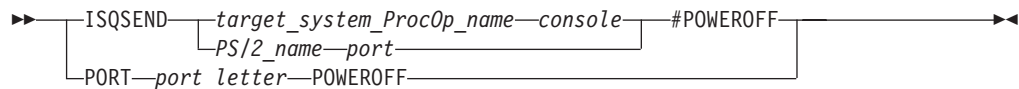
- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

#POWEROFF

Purpose

The #POWEROFF screen handler command simulates removing power from a 3270 connection card.

Syntax



Requirements

The addressed port must have been started and must be running for this command to complete successfully.

Parameters

None.

Defaults

None.

#POWERON

Issue this command to recover from various control unit status conditions (such as a 505) which normally require a locally connected console or workstation to perform a power-up reset.

Issue this command if a 3270 connection card has been powered off by the #POWEROFF command.

Issue this command after issuing a #SET TERMINAL TYPE command that changed the type of workstation connected to a 3270 connection card.

When the console at the target system is on a coaxial switch, issue this command after switching the display from an existing system console to the processor operations PC.

Restrictions and Limitations

The following restrictions and limitations apply to this command:

- You can issue this command only from an active console.
- This command informs the control unit a power-on reset is being performed, and does not respond to polls until the reset is successfully completed.

Cautions:

1. Do not issue this command to a 308x system console in mode A (system console mode). It can halt the 308x processor and require a power-on reset to restart the processor.
2. This command can affect processor operations automation.

Return Codes

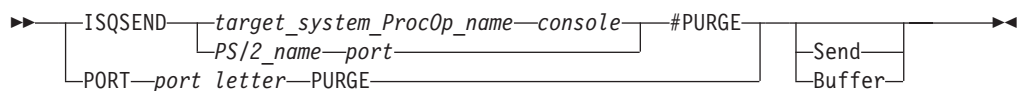
- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

#PURGE

Purpose

The #PURGE screen handler command deletes the commands which have been queued in the processor operations PC to be sent to a target system.

Syntax



Requirements

The addressed port must be running for this command to complete successfully.

Parameters

Send

Specifies that the command currently being sent is to be purged

Buffer

Specifies that messages queued for the focal-point system are to be purged

Defaults

None.

Usage

During the transmission of commands to target systems, screen handlers queue the commands, messages, and responses on a first-in first-out (FIFO) basis. The processor operations PC also stacks the commands as it sends them to the target system. There are three queues:

Command queue

Contains commands to a target system or to the processor operations PC

Response queue

Contains responses to PS/2 commands

Active queue

Contains messages from a target system to the focal-point system

Issue #PURGE to delete commands queued for a specific target system from the command queue. Only the commands to a target system can be deleted; PS/2 commands cannot be deleted, nor can their responses be deleted from the response queue.

Issue #PURGE send to delete the command currently being sent to a specific target system, even if the command currently being sent to a target system has already been sent to (queued in) the processor operations PC.

Issue #PURGE buffer to delete messages from a specific target system from the active queue.

Restrictions and Limitations

Issue this command only from the active console at the primary focal-point system.

Caution: This command can affect processor operations automation.

Return Codes

- 0 The command completed successfully.
- 1 The command did not complete successfully.

#QUERY**Purpose**

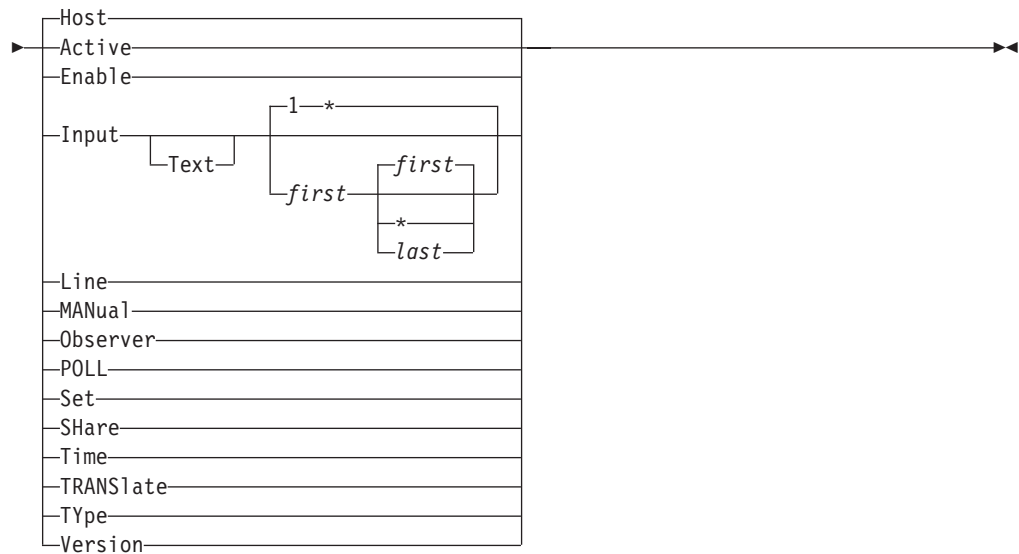
The #QUERY command requests information about the processor operations PC environment, ports, and screen handlers.

Syntax

```

▶▶ ISQSEND—target_system_ProcOp_name—console—#QUERY
      |
      |—PS/2_name—port
      |
      |—PORT—port_letter—QUERY
  
```

#QUERY



Requirements

The requirements for the #QUERY command to complete successfully depend on the keyword used with the command, as follows:

Active	processor operations must be running, the appropriate processor operations PC must be running, and the addressed port must be running and must have been started
Enable	The addressed port must have been started
Host	No requirements
Input	The addressed port must have been started
Line	The addressed port must be running
MANual	The addressed port must have been started
Observer	The addressed port must have been started
POLL	The addressed port must have been started
Set	The addressed port must have been started
SHare	The addressed port must have been started
Time	The addressed port must be running
TRANSlate	The addressed port must be running
Type	The addressed port must be running
Version	The addressed port must be running

Parameters

Active

Provides the port letter of the active focal-point system from which the addressed target system or PS/2 port will accept commands and to which it will send messages.

Enable

Provides the status of the screen handler functions that can be enabled and disabled.

Host

Is the default for the #QUERY command.

For all screen handlers except general asynchronous: This keyword provides the status of the console at the target system (such as whether the port has been started, whether the screen handler is active, whether the console is RUNNING or in * READ mode, and so on).

For the general asynchronous screen handler only: This keyword provides the status of the target system rather than the console.

Input

Is not valid for the general asynchronous screen handler. It identifies the input fields currently on the screen, the size of each, the current input field, and (optionally) provides the contents of the specified input fields:

blank

Not specifying anything (blank) after the *input* parameter indicates that the text of the input field is not to be included in the response (this is the default).

Text

Specifying the *text* parameter after the *input* parameter indicates that the text of the input fields is to be included in the response.

- 1 Specifies that field number one is the first input field to be queried (this is the default for the *first* parameter). All input fields are queried if you do not specify a *first* and *last* field.

first

Specifies the first input field to be queried.

- * Specifies the last input field on the screen is the last input field to be queried, indicating "to the end of the screen". This is the default for the *last* parameter, unless *first* is specified. Then *first* is also the default for *last* (specifying the first field and not a last field implies just the one field specified by *first*).

last

Specifies the last input field to be queried.

Line

provides the current settings (baud rate, stop bits, and so on) of the asynchronous communication line.

MANual

Is valid for the SYS4381 screen handler only. It indicates the current setting of the manual switch. (Manual control is forced on the console when this switch is on.)

Observer

Provides the port letter of the observer port in the addressed processor operations PC. See the #SET command (described on page 392) for an explanation of active and observer ports.

POLL

Is valid for the general asynchronous screen handler only. It provides the text string, if any, sent to the target system as a poll.

#QUERY

Set

For all screen handlers except general asynchronous: This keyword provides the values to which the timers and retry count are set. See the #SET command (described on page 392) for a description of the information that is available for each parameter.

For the general asynchronous screen handler only: This keyword also provides the prompt strings and various control characters. See the usage description for more information.

SHare

Is valid for the SYS4381 screen handler only. It provides the names of all of the shared screen handlers for this port.

Time

Indicates time information is being requested.

TRANSlate

For all screen handlers except general asynchronous: This keyword displays the current settings for the translate function, including the code page currently selected (C37 for NetView) and the code indicating the selected character set (country gen code).

For the general asynchronous screen handler only: The country gen code is not valid for general asynchronous screen handlers.

TYpe

Is not valid for the general asynchronous screen handler. It displays the console type (screen handler) and the model of the console.

Version

Displays the version numbers of the distributed feature code subsystems used by the addressed port.

Defaults

When no keywords are specified, the #QUERY command defaults to #QUERY HOST.

The #QUERY INPUT command defaults as follows:

- If *first* is omitted:
 - The Text parameter defaults to a blank (the text of the input fields is not to be included).
 - The *first* parameter defaults to field number one.
 - The *last* parameter defaults to an asterisk (meaning “to the end of the screen”).
- If *first* is specified:
 - The Text parameter defaults to a blank (the text of the input fields is not to be included).
 - The *last* parameter defaults to field number one.

Usage

This command can be issued from the active console or the backup console.

The active focal-point port is the processor operations PC port through which the processor operations PC will accept processor operations commands from the primary focal-point system and to which the processor operations PC will send

processor operations messages to the primary focal-point system. The observer port monitors all active focal-point port traffic and is usually connected to an alternate focal-point system.

The only command a processor operations PC will accept and process from an observer port is a #SET ACTIVE command. The observer port lets an alternate focal-point system monitor the processor operations activity and, should the primary focal-point system fail, inform the processor operations PCs that the alternate focal-point system is now the primary focal-point system.

Issue #QUERY ENABLE to see the current screen handler settings in effect. Any ENABLE commands issued from an operator who is in pass-through mode will not be reflected as they will not take effect until the operator exits pass-through mode.

Issue #QUERY HOST to see whether the target system can communicate with the focal-point system. If the console at the target system has a status of RUNNING, the target system can communicate. If the console at the target system has a status of X SYSTEM, 505. . . , and so on, the target system cannot communicate. If the console at the target system is in * READ mode or VM READ mode, then the target system cannot send unsolicited messages to that console.

Issue QUERY POLL to identify the text being used for a poll string on a general asynchronous port. For polling to take place, there must be a poll string, polling must be enabled (by the #SET command, described on page 392), and the poll timer must be set to a non-zero value (also by the #SET command).

When you issue QUERY SET to a general asynchronous screen handler port, you get the following information in addition to the settings of the retry counter and timers:

- Timeout character
- End-of-line characters
- XON character
- XOFF character
- ENTER character
- ATTN character
- BELL character
- Character to which the BELL character is translated
- Prompt strings

The first value returned when you issue #QUERY TRANSLATE for a control unit terminal (CUT) mode emulator represents the code page of the target system after the translation that is specified by the country gen code is applied.

Restrictions and Limitations

When you issue #QUERY INPUT, you see the information that was present when the command was received by the target system. This information may have changed after the #QUERY command was received and before you received its response.

Caution: This command can affect processor operations automation.

Return Codes

- 0 The command completed successfully.
- 1 The command did not complete successfully.

#QUERY

Messages

When you issue #QUERY INPUT, an asterisk (*) follows the input field number of the current input field.

When you issue #QUERY INPUT and see an asterisk (*) following the length field in the response, this indicates the text is highlighted. A dash (-) indicates a non-displayed field.

Text is truncated to 40 characters, but there is no visible indication of truncation.

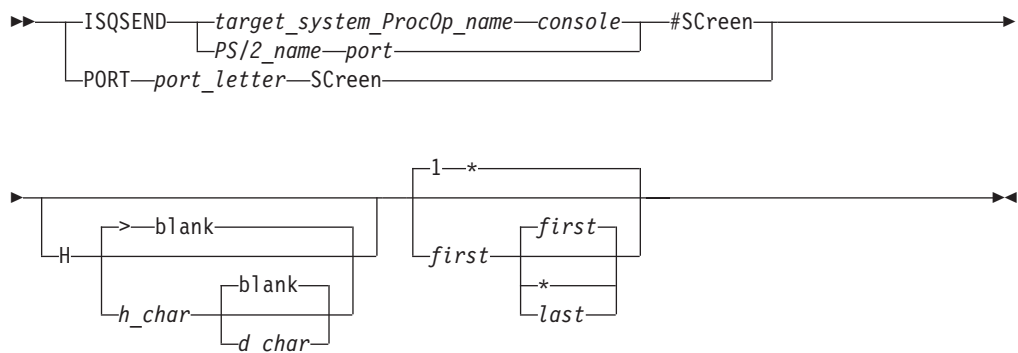
One of the possible responses to the command QUERY TYPE is *FS_DEF. This is a null screen handler that cannot process any commands; it indicates either the correct screen handler cannot be determined or that a screen handler was not specified when the port was started.

#SCREEN

Purpose

The #SCREEN screen handler command takes a snapshot of the console at the target system and sends the processor operations PC each line of the screen image on a line-by-line basis. The processor operations PC groups these individual lines into a multiline message to form the entire screen image and presents the image at the NetView console.

Syntax



Requirements

The addressed port must have been started for this command to complete successfully.

Parameters

H Means the highlighting information is to be returned. The default is not to indicate whether a field is highlighted.

There cannot be any blanks between H, *h_char*, and *d_char*.

> The greater-than symbol (>) is the default character used to indicate a highlighted field; it replaces the highlighted attribute.

h_char

Is the character used to indicate a highlighted field. The designated character replaces the highlighted attribute.

There cannot be any blanks between H, *h_char*, and *d_char*.

blank

A blank is the default character used to indicate a non-highlighting (normal or non-displayable) attribute; it replaces the non-highlighting attribute.

d_char

Is the character used to indicate a non-highlighting (normal or non-displayable) attribute. The designated character replaces the non-highlighted attribute.

There cannot be any blanks between H, *h_char*, and *d_char*. This variable cannot be defined unless *h_* is also designated.

- 1** A one is the default for the number of the first line on the screen to be returned, indicating the first line is to be returned.

first

Is the number of the first line on the screen to be returned.

first

The default for the number of the last line on the screen to be returned is the same as the value for the number of the first line on the screen to be returned; indicating only one line is to be returned.

last

Is the number of the last line on the screen to be returned.

- * An asterisk (*) specifies the rest of the screen is to be returned.

Defaults

When all defaults are used (no parameters are entered after the keyword **#SCREEN**), the entire screen is returned with no highlighting information nor any indication of non-highlighting attributes.

This command defaults to not returning highlighting information.

> is the default character used to indicate a highlighted field.

A blank is the default character used to indicate normal or non-displayable attributes.

first defaults to the first line.

last defaults to only the input line specified by *first*.

The entire screen is returned by default when neither *first* nor *last* is specified.

Usage

This command can be issued from the active console or the backup console.

The **#SCREEN** command is useful for running automation procedures against full-screen panels, finding field numbers, and determining the contents of the

#SCREEN

fields. Processor operations groups these individual lines into a multiline message (ISQP322I) to form the entire screen image and presents the image at the NetView console.

Highlighting is used to indicate status conditions such as active channels. Nonhighlighting attributes are applied to fields where such things as passwords are entered.

H following the keyword #SCREEN indicates highlighting parameters are being provided with the command string. There cannot be any blank spaces between the H and the highlighting parameters (a blank space indicates the end of the highlighting parameters and the beginning of the first/last line parameters).

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- This command is not valid for TPF asynchronous screen handlers.
- The *h_char* parameter must be a displayable character on a NetView workstation.
- The *d_char* parameter must be a displayable character on a NetView workstation.
- There cannot be a space between H and the *h_char*.
- Line 0 is the workstation status line of the console. On a 3278 Model 2 workstation, this is line 25 (bottom line). There is no highlight information on line 0; results may be unpredictable if highlighting is indicated on line 0.
- You cannot specify a blank as the *h_char*.
- Some information may be lost because of code page translations. (These translations are from EBCDIC in the focal-point system to ASCII in the processor operations PC as the code page of the target system, and then the translation as the screen information is returned to the focal-point system.)

Caution: This command can affect processor operations automation.

Return Codes

- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

Examples

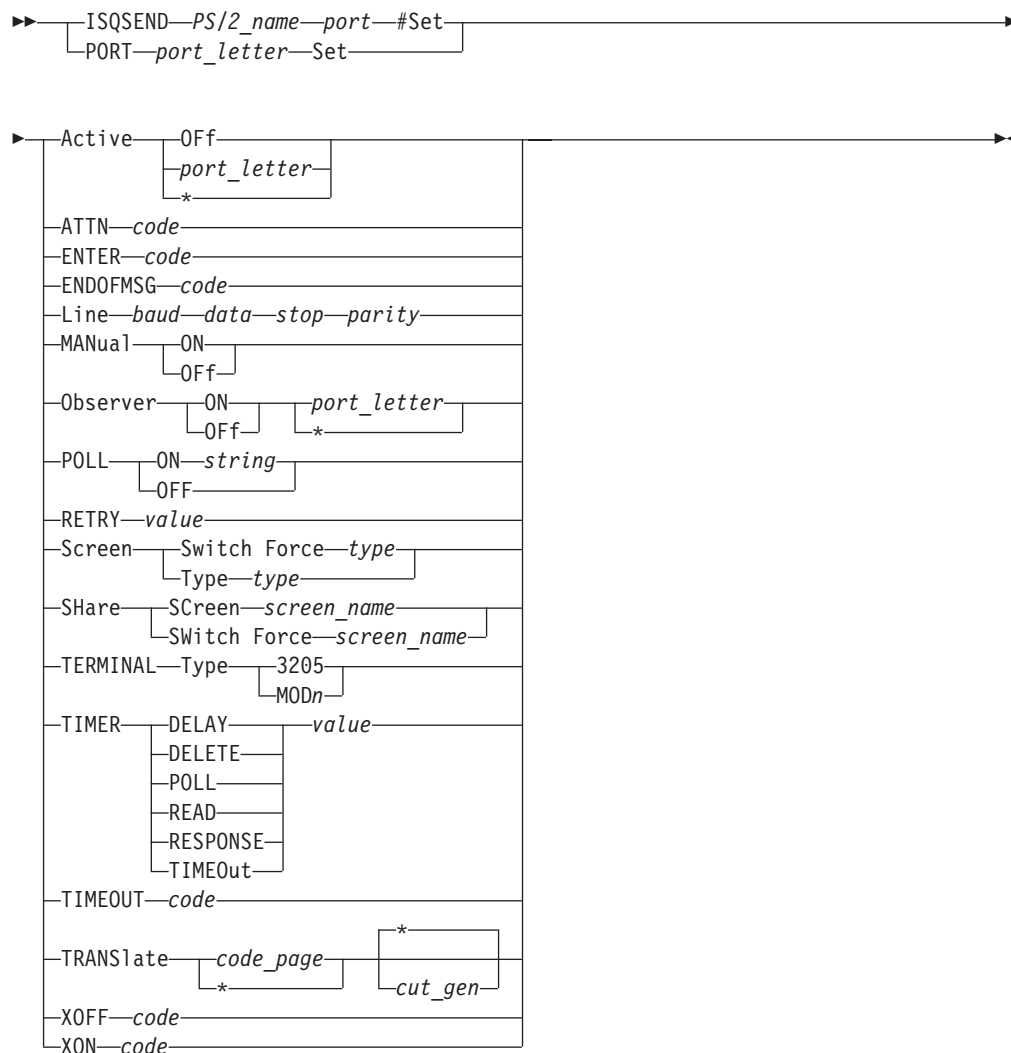
- #SCREEN 1 22**
Captures all the lines between 1 and 22, inclusive; no highlighting specified.
- #SC H:1**
Captures line 1 with a colon (:) preceding each highlighted field.
- #SC H**
Captures the entire screen image with a greater than symbol (>) preceding each highlighted field.
- #SC Hi 2**
Captures line 2 with an *i* preceding each highlighted field.

#SET

Purpose

The #SET screen handler command sets processor operations and PS/2 parameters.

Syntax



Requirements

The focal-point system must be running for this command to complete successfully.

Parameters

Active

Indicates an active focal-point port is to be defined.

Off

Indicates there is to be no active focal-point port.

port_letter

Is the port letter of the new port to be defined as the active focal-point port.

* Indicates the port from which this command originated is to be defined as the active focal-point port.

#SET

ATTN

Indicates that the ATTENTION key is to be set.

code

The 2-hexadecimal-digit code that indicates to the target system that the ATTENTION key has been pressed at the specified processor operations PC. The default value is 12.

ENTER

Indicates the code to notify the target system that the Enter key has been pressed at the specified processor operations PC.

code

The 2-hexadecimal-digit code that will notify the target system that the Enter key has been pressed at the specified processor operations PC. The default value is 05.

ENDOFMSG

Indicates the 2-to-8-hexadecimal-digit code that will notify the target system of the end of the message being sent from the specified processor operations PC.

code

The 2-to-8-hexadecimal-digit code that will notify the target system of the end of the message being sent from the specified processor operations PC. The default value is 0D0A0C.

LINE

Indicates that asynchronous line characteristics are being set.

baud

Specifies the baud rate of the asynchronous communication line.

data

Specifies the number of data bits comprising one data word on the asynchronous communication line. Valid values are 5, 6, 7, or 8.

stop

Specifies the number of stop bits used on the asynchronous communication line. Valid value are 1 or 2.

parity

Specifies the type of parity being used on the asynchronous communication line. Valid values are:

- 0 None
- 1 Odd
- 2 Even
- 3 Mark (parity bit is always 1)
- 4 Space (parity bit is always 0)

MANual

Valid for the SYS4381 screen handler only. It indicates the force manual switch is being set. (When this switch is on, the screen handler automatically presses the MODEsel key whenever the console is not in manual control mode, provided that *maintenance* is enabled.)

ON

Indicates the force manual switch is being turned on.

Off

Indicates the force manual switch is being turned off.

Observer

Indicates an observer port is to be set.

ON

Indicates an observer port is being defined.

OFF

Indicates an observer port is being undefined.

port_letter

Is the port letter of the port to monitor the active focal-point port.

- * An asterisk (*) indicates the port from which this command originated is to be defined as the observing port.

POLL

Is valid for the General Asynchronous screen handler only. It indicates the polling function is being defined.

ON

Enables the polling function.

string

Is the text string used to poll the target system.

OFF

Disables the polling function.

RETRY

Indicates the following variable is the retry count.

value

Is the new number of times that the application will attempt to send something to a target system.

Screen

Indicates the screen handlers that can run on the addressed port are being defined.

Switch Force *type*

Indicates the port is to change the active type of screen handler.

FORCE

Causes the port to perform the change regardless of other activity on the port.

TYPE

Indicates that the list of types of screen handlers that can run on the addressed port is being changed.

type

Identifies the type of screen handler that will become the active screen handler at the addressed port. Valid screen handler types are SYS4381, SYS9021, SYS9121, SYS3090, SYS308X, MVS, TPF, VM, and VSE.

SHare

Is valid for the general asynchronous screen handler only. It allows a shared screen to be defined.

Screen

Identify screen handlers that can run on the addressed port, sharing the port with any other screen handlers so defined for the port.

screen_name

Specifies the name of a screen handler. Valid screen handler names are MVS, VM, and VSE.

#SET

SWITCH

Indicates the addressed port is to change the active shared screen handler.

FORCE

Indicates the screen handler specified by the following variable should always be used when the console is in display mode.

screen_name

Specifies the name of a screen handler. Valid values are MVS, VM, or VSE.

TERMINAL Type

Indicates the following variable identifies the workstation type of the console at the target system.

3205

Indicates the workstation type of the console at the target system is a model 3205.

MOD n

Indicates the workstation type of the console at the target system is a model n , where n is a 2, 3, 4, or 5.

TIMER

Indicates that one of the following timers is being set:

DELAY

Identifies the timer to be set.

value

Defines the number of seconds (resolution to tenths of a second) to which the timer is to be set. It specifies the minimum time which must elapse after a command has been entered before another command will be accepted.

DELETE

Identifies the timer to be set on MVS and VSE only

value

Defines the number of seconds (resolution to tenths of a second) to which the timer is to be set. It specifies the maximum time to wait after a screen change before clearing the screen again with the CONTROL E command (MVS). (10 seconds is usually an acceptable value for most sites.)

POLL

Identifies the timer to be set.

value

Defines the number of seconds (resolution to tenths of a second) to which the timer is to be set. It specifies the amount of time to wait before polling the target system to verify that the target system is still running.

READ

Identifies the timer to be set for VM only

value

Defines the number of seconds (resolution to tenths of a second) to which the timer is to be set. It specifies the amount of time a CP READ or VM READ can stay on the screen before a message is generated instructing you to take appropriate action. A value of 0 prevents the message from being issued.

RESPONSE

Identifies the timer to be set.

value

Defines the number of seconds (resolution to tenths of a second) to which the timer is to be set. It specifies how long the processor operations PC should wait for a response before giving up trying to send a command to a target system. (Actual response time plus 5 seconds is usually acceptable for most sites.)

TIMEOut

(general asynchronous only) This keyword identifies the timer to be set.

value

Defines the number of seconds (resolution to tenths of a second) to which the timer is to be set. It specifies how often the timeout character is to be sent to the 3215-emulation devices that require the periodical sending of a timeout character.

TIMEOUT

Indicates a character sent from the processor operations PC at a set time interval so the ASCII connection hardware knows the processor operations PC is still operational.

code

The 2-hexadecimal-digit code that indicates a timeout character sent from the processor operations PC at a set time interval so the ASCII connection hardware knows the processor operations PC is still operational. The default value is 1E.

TRANSlate

Indicates the translation tables to be used are to be defined.

code_page

Is the code page identifier used in the processor operations PS/2.

* Designates the current code page (no change).

cut_gen

Is the control unit terminal (CUT) code indicating the selected character set (country gen code). This parameter is valid for CUT mode emulators only. Not valid for the general asynchronous screen handler. It identifies the selected character set. (The general asynchronous screen handler accepts this parameter, but ignores it.)

* Designates the current country gen code (no change). This parameter is valid for CUT mode emulators only. Not valid for the general asynchronous screen handler. It identifies the selected character set. (The general asynchronous screen handler accepts this parameter, but ignores it.)

XOFF

Indicates that the processor operations PC buffer receiving communications from the target system is full.

code

The 2-hexadecimal-digit code that indicates the processor operations PC buffer receiving communications from the target system is full. The default value is 13.

XON

Indicates the buffer ready to receive communication from the focal-point system.

#SET

code

The 2-hexadecimal-digit code that indicates the processor operations PC buffer is ready to receive communications from the focal-point system. The default value is 11.

Defaults

The default values are the same as the following initial settings unless the configuration dialogs defined other values.

Initial Settings:

POLL OFF
RETRY 2
TIMER DELAY = 0.5
TIMER DELETE = 15
TIMER POLL = 10
TIMER READ = 60
TIMER RESPONSE = 5
TIMER TIMEOut = 5

For all screen handlers except general asynchronous:

LINE 19200 8 11
Terminal Type MOD2
TRANSLate code page = 37, country gen code = 01 (US/English)

Note: TRANSLATE is for CUT mode emulators only, and LINE is for asynchronous lines only.

For the general asynchronous screen handler only:

LINE 9600 8 10
TRANSLate code page = 437

Usage

The active focal-point port is the processor operations PC port through which the processor operations PC will accept processor operations commands from the primary focal-point system and to which the processor operations PC will send processor operations messages to the primary focal-point system. The observer port monitors all active focal-point port traffic and is usually connected to an alternate focal-point system.

You can use the #SET ACTIVE command as part of the procedure of switching from the primary focal-point to an alternate focal-point system. You can also use this command if you have redundant focal-point systems in your configuration to designate the focal-point system that is actively controlling the configuration. The #SET ACTIVE command is normally issued during initialization based on configuration dialog information.

The command SET OBSERVER ON lets an alternate focal-point system monitor the processor operations activity through the observer port. The only command a processor operations PC will accept and process from an observer port is a #SET ACTIVE command. Should the primary focal-point system fail, this lets the alternate focal-point system inform the processor operations PCs that it is now the primary focal-point system.

The #SET ACTIVE command is normally issued during initialization based on configuration dialog information.

When you issue SET POLL ON string to enable polling, the poll string that you define is a command that is sent to the target system. This command should not generate much output; the poll string can be a null string (SET POLL ON), in which case only the Enter key is pressed. For polling to take place, you must also set the poll timer to a non-zero value.

The 4381 integrated console is supported as an operator console only. Issue the following sequence of commands to lock the integrated console into SYS4381 operator console mode only and to use a shared screen handler (the example shows MVS) on the console:

```
#SET SCREEN TYPE SYS4381
#SET SCREEN SWITCH FORCE SYS4381
#SET SHARE SCREEN MVS
#SET MANUAL OFF
```

Initially, the console is in manual mode. If you are not sure about the mode of the console, issue the command #SCREEN 0. This command string returns the current screen from the console, which indicates the current mode of the console. Issue the processor command string Q Z to change the console from manual mode to display mode.

The #QUERY and #SET commands return and set the retry and timer values that are used when a console associated with the 4381 screen handler is in manual control mode. When the console is in display mode, the retry and timer values from the shared screen handler are used. Use the #SHARE COMMAND command to set the shared screen handler values to use in display mode. For example, to set the retry and timer values when the shared screen handler is MVS, issue the following commands:

```
#SHARE COMMAND MVS SET RETRY n

#SHARE COMMAND MVS SET TIMER timer value
```

To activate a particular shared screen handler, issue the command SET SHARE SWITCH FORCE. You can issue the #SET RETRY and #SET TIMER commands from the active console at the primary focal-point system only. If the addressed port has been started, you can issue the #SET command only from the active console at the primary focal-point system; otherwise you can issue the #SET command from any console.

If the required #SET TRANSLATE values are not preset correctly, you must issue a #SET TRANSLATE command to set them correctly before starting the port. Otherwise the results will be unpredictable.

Restrictions and Limitations

The following restrictions or limitations apply to this command:

- You can designate only one active focal-point port per PS/2 port.
- Issuing the #SET ACTIVE command to define an active focal-point port while the backup console is an observer drops the monitor status of the backup console. This means you have to specify the newly designated backup console as a monitor of the ports the original backup console was observing.
- You must issue the command #SET SHARE *screen_name* for every shared screen handler that could be run on this port.
- The #SET TRANSLATE *cut_gen* command is valid for CUT mode emulators only.

#SET

Note: When used with processor operations, the 3270 connection cards in the processor operations PC are always CUT mode emulators.

- The #SET TRANSLATE *code_page* command should always be 37 (437 for general asynchronous); otherwise the NetView automation tables will not work.
- The TRANSLATE keyword is not supported by 9121 processors. However, it always generates a return code of 0.
- For 9021, 9121, 3090, and 308x processors connections, only workstation model type MOD2 is valid.

For 4381 processor connections, the valid workstation model types are MOD2 and 3205. All workstations connected to a 4381 processor must have the same workstation model type.

For a 3x74 control unit, the valid workstation types depend on the operating system, as follows:

MVS MOD2, MOD3, and MOD4.

VM MOD2, MOD3, MOD4, and MOD5.

VSE MOD2.

TPF MOD2, MOD3, and MOD4.

- Valid values for all retry or timer values are 0 through 2000.
- Range checking is not performed on specified numbers for the retry or timer values; although specifying an alphabetical character for a numeric-only parameter will generate an error message.
- Specifying too high a RETRY value can keep the processor operations PC busy doing only retries for a long time.

Specifying zero means the command will not be issued again if it fails to complete successfully on the first attempt.

The RETRY value multiplied by the response timer value is the total amount of time the processor operations PC will wait before generating a command timeout.

- Specifying too high a value for the DELAY timer prevents you from clearing the screen and restricts the speed at which other keystrokes can be performed. A value of 1 second is considered too high.

Specifying zero means commands may be issued and keys pressed as fast as you can issue them.

- Specifying too low a value for the DELETE timer can cause you to miss a lot of messages as the screen will be cleared before you have a chance to read them, or even before they are fully displayed.
- Specifying too high a value for the POLL timer can prevent you from knowing the connection to the target system was lost until long after the fact. Specifying too low a value for the POLL timer degrades performance as the system will be too busy polling to accomplish much else.

Specifying zero prevents polling.

- Specifying too high a value for the READ timer can fill free storage in the target system and possibly halt the target system. This is because messages generated while a console is in a CP READ or VM READ mode are stacked until the Enter key or a PF key is pressed.

Specifying too low a value for the READ timer can overload you with messages that the console at the target system is in a CP READ or VM READ mode.

Specifying zero prevents any messages from being generated. This may be desirable in some instances. For example, if an operator is not logged on at the

target system, the target system will generate a lot of CP READ messages. Once you are aware of this situation, you may want to prevent the messages from being sent to you.

- Specifying too high a value for the RESPONSE timer can keep the processor operations PC busy just waiting for a response. Specifying too low a value for the RESPONSE timer can prevent the command from ever completing successfully because it cannot generate a response fast enough.

Specifying zero will cause the processor operations PC to wait for a response as long as is necessary.

The RESPONSE timer and the RETRY count are closely related. The value for the RESPONSE timer multiplied by the RETRY count plus 1 is the maximum period of time the processor operations PC will allow to pass before failing the command.

Caution: This command can affect processor operations automation.

Return Codes

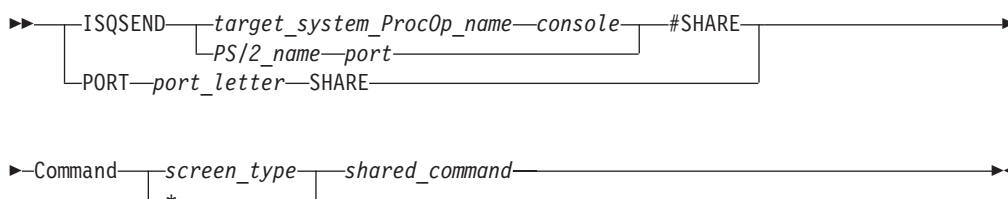
- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

#SHARE

Purpose

The #SHARE command issues a command to a shared screen handler.

Syntax



Requirements

The addressed port must have been started for this command to complete successfully.

The shared screen handler must have been defined and be active for this command to complete successfully.

Parameters

Command

Indicates a command is being issued to a shared screen handler.

screen_type

Is the shared screen handler type to which the command is being issued. Valid screen types are MVS, VM, and VSE. An asterisk (*) indicates all shared screen handler types defined to this port.

#SHARE

shared_command

Is the command being issued to the shared screen handler. This command must be a valid command for the specified *screen_type* screen handler.

Defaults

None.

Usage

You use the #SHARE command to set the retry and timer values that are used when the 4381 console is in display mode. A shared screen handler must be defined to the port. Valid shared screen handlers are MVS, VM, and VSE. (You use the *share* parameter of the #Set command, described on page 392, to define shared screen handlers to the port.)

For example:

```
#share command screen_type set retry n
#share command screen_type set timer timer value
```

where:

n is the retry count to use in display mode
timer is the name of the timer whose value is being set
value is the value to which the timer is being set

See the #SET command for valid timer names, and for valid retry and timer values.

Restrictions and Limitations

The following restrictions and limitations apply to the use of this command:

- The #SHARE COMMAND command is valid only for 4381 processors.
- You can issue this command only to a port connected to a 4381 integrated console.
- If the command you issue sends something to a target system, the specified screen type must be active.

Caution: This command can affect processor operations automation.

Return Codes

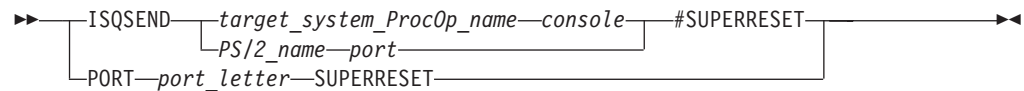
0	The <i>shared_command</i> completed successfully.
1	The command did not complete successfully.

#SUPERRESET

Purpose

The #SUPERRESET screen handler command performs the same function as pressing the Reset key on a console, and it unlocks the Caps Lock key and an Alt key stuck in the pressed position.

Syntax



Requirements

The addressed port must be running and started, and the screen handler for this port must be running, for this command to complete successfully.

Parameters

None.

Defaults

None.

Usage

As with the RESET command, this command is available for problem determination. For example, if commands you enter are not processed, the keyboard could be locked. RESET unlocks the keyboard from the condition caused by entries being made faster than they can be accepted. Use the #SUPERRESET command when entries are accepted but cause unexpected results.

You can tell if the Caps Lock key has been activated by issuing the command SCREEN 0. This will return line zero of the target console, which is the status line that shows the caps lock symbol (it will be shown as a displayable character).

Some symptoms of the Alt key being stuck in a pressed position are:

- The Clear key works but the Enter key does not work.
- PF keys 1 through 12 work but PF keys 13 through 24 do not work.

Generally, if the RESET command does not fix the apparent problem, try the #SUPERRESET command.

Restrictions and Limitations

Be careful using the #SUPERRESET command. Some of the distributed feature code checks only for the disappearance of the X SYSTEM status message before continuing. Both the RESET command and the #SUPERRESET command clear this status indicator but not the condition.

Caution: This command can affect processor operations automation.

Return Codes

- 0 The command completed successfully.
- 1 The command did not complete successfully.

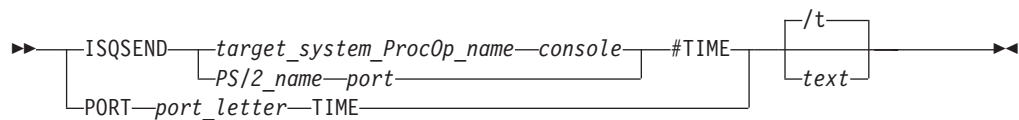
#TIME

#TIME

Purpose

The #TIME command enters a string, with time or date substitution, into the current input field at the specified target system and simulates pressing the Enter key at the target system.

Syntax



Requirements

The addressed port must have been started for this command to complete successfully.

Parameters

/t The 2-character string that is the default value for the optional text string. It is replaced by the current time, which is presented in the form *hh:mm:ss*.

text

Is a text string that can contain the special strings that are replaced by time elements, as shown in the following table. Blanks are significant in the text string; the first character of the text string is considered to be the first character after the single space character after the keyword #TIME.

Format String	Substituted Time Element	Example
//	slash (/)	/
/d	date in the form mm/dd/yy	01/15/91
/n	month number	01
/l	3-letter abbreviation of the month	Jan
/g	day of the month	15
/j	day of the year	015
/y	last 2 digits of the year	91
/c	year	1991
/t	time in the form hh:mm:ss	14:06:12
/h	hour	14
/m	minutes	06
/s	seconds	12
/a	clock source, textual: not valid, application, OS/2, external, accurate	accurate
/b	clock source, encoded: 0=not valid, 1=application, 2=OS/2, 3=external, 4=accurate	4

Format String	Substituted Time Element	Example
/+(s.m.h.d.m.y)	Time added to the current time before any more substitution takes place. This sequence does not add anything to the resultant string, it just changes the value used for the string.	
/-(s.m.h.d.m.y)	Time subtracted from the current time before any more substitution takes place. This sequence does not add anything to the resultant string, it just changes the value used for the string.	
/e	Use the time from the external clock (this is the default). This sequence does not add anything to the resultant string, it just changes the value used for the string.	
/p	Use the time from the OS/2 clock. This sequence does not add anything to the resultant string, it just changes the value used for the string.	

Defaults

When no parameters are specified, the #TIME command defaults to /t.

Usage

Processor operations automatically sets the time at target systems when the initial program load process is performed.

The #TIME screen handler command sets the time and date at a target system. It substitutes specified text with time and date values which are read from the PS/2 clock, that may be using the WWV time standard. This command queries the processor operations PC for the requested information (*text*), sends the response to the addressed target system, enters it into the current input field, and presses the Enter key.

Examples

#TIME /d

Enters the date at the target system.

#TIME /+(. .5)/t

Adds five hours and enters 19:06:12 on the target system if the current time is 14:06:12. The two dots preceding the 5 indicate the absence of values for the seconds and minutes fields.

#TIME _/t

Enters *_hh:mm:ss* into the input field. (An underscore character represents a blank.) An additional space between the keyword #TIME and the format string is picked up as a leading blank in the substituted time element.

#time /t/+(. .5)/t

Results in the following substituted time element: 14:06:12 19:06:12 (assuming the current time is 14:06:12).

Restrictions and Limitations

- Only the 24-hour format is supported; the 12-hour format is not supported.
- You can issue this command only from an active console on a port that has been started.

#TIME

Caution: This command can affect processor operations automation.

Return Codes

- | | |
|---|--|
| 0 | The command completed successfully. |
| 1 | The command did not complete successfully. |

Appendix A. Definitions for I/O Operations Commands

This appendix provides additional information for using I/O operations commands.

ESCON Director Switch

Following is an example of a diagram used in this document to illustrate an ESCON director (or switch, as it is usually called).

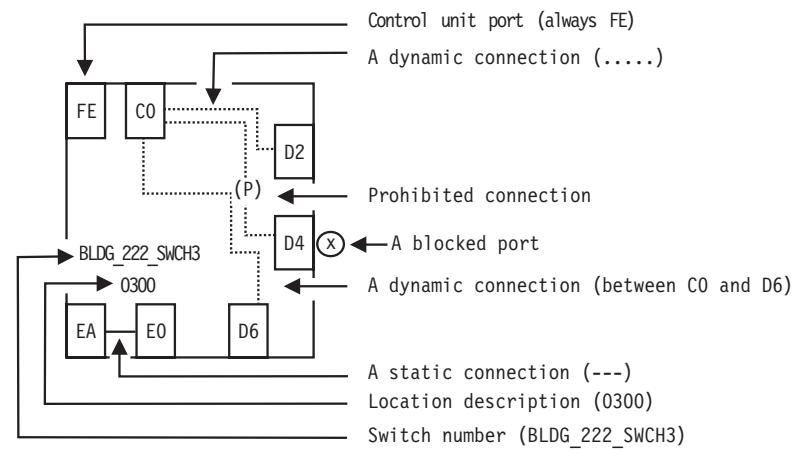


Figure 128. Sample of an ESCON Director Diagram.

Switch Identifiers

A switch device number is a hexadecimal number containing up to four digits with any leading 0's (zeros) padded by I/O operations. The ADDRESS parameter of the IODEVICE macro in the I/O Definition File (IODF) specifies the switch device number.

In many I/O operations commands, a switch device number is required in the input to identify a switch that is allocated to the issuing I/O operations (primary host). The program also displays the switch device number on output.

Two related terms apply in this context:

- A *logical switch number* (LSN) is a 2-digit hexadecimal number that is assigned with the SWITCH parameter on the CHPID macro of the IOCP. I/O operations does not use an LSN as input, but it does display an LSN in the output of many of its Display and Query commands.
- A *switch identifier* (Switch ID) is identical with the switch's LSN. It is displayed by the I/O operations Workstation feature to be compatible with Hardware Configuration Definition (HCD), which also uses this term.

Logical Switch Number (LSN)

An LSN is a 2-digit hexadecimal number that is assigned with the SWITCH parameter on the CHPID macro of the IOCP. I/O operations does not use an LSN as input, but it does display an LSN in the output of many of its display and query commands.

In many I/O operations commands, a switch device number is required in the input to identify a switch that is allocated to the issuing I/O operations (primary host). The program also displays the switch device number on output.

Chain and Unchain a Switchable Path

A *chained path* is a path that passes statically (without dynamic connections) through one switch, which is called the *passthru switch* in the chain, and ends in a second, or *destination switch*. The two switches must be physically linked to each other. The ports in a chained path can be designated as the:

- A** Port to which the I/O interface of the channel is physically attached in a CH chain and the I/O interface of the control unit is attached in a CU chain.
- M** Port to which the A port is statically connected in the passthru switch.
- E** Port that ends the chain in the destination switch.
- D** Is the destination link address of the chain as defined in the I/O definition file (IODF) or I/O control data set (IOCDs). As you can see, port D is simultaneously port E in a CU chain, but not in a CH chain.

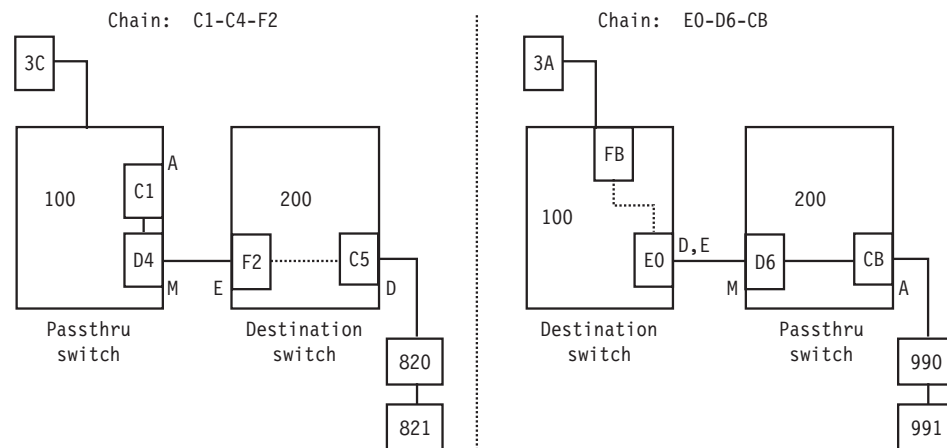


Figure 129. Examples of Chained Paths.

Chaining a Path

1. You must define a chained path to I/O operations, and remove this definition when it is no longer needed.
2. The I/O operations used to define a chain or remove its definition must have dynamic access via CNC channel to the control unit port (CUP) on both switches in the chained path. (In Directors, the CUP address is X'FE'.)
3. I/O operations will *not* permit you to define, or remove the definition of, a chain if it can foresee that the chain command would fail these precursory checks:

- Remove the last path to the specified switch(es) in a Block, Connect, or Chain command
- Affect an unimplemented port
- Affect the control unit port (CUP) except to assign it a port name
- Allow a port to connect dynamically to itself
- Connect a port statically to itself or to more than one other port
- Connect a port that is not installed.
- Disconnect 2 ports that are not statically connected
- Chain a port that is already part of a different chain
- Chain ports so that they would create a loop

Chaining can affect the vary path requests that I/O operations issues. See “Processing a Vary Path Request” on page 422 for more information.

4. If you intend to define a chain that includes a parallel channel operating in block mode with a CV converter, such as an ESCON Converter Model 2 (9035) attached, use these guidelines for selecting `noforce`, `nocheck`, or `force`. The guidelines should help you decide whether to select `NOForce`, `NOCheck`, or `Force` as an option in a connectivity command that affects a CV converter.

If the path is not chained and the foregoing requirements are met, you can enter a connectivity command with either the `NOForce` option or the `NOCheck` option.

- If you specify `NOForce`, I/O operations will check for an operational CV converter in the path and process the command under the set of rules that apply.
 - a. If the CV converter is operational, I/O operations will:
 - 1) Fail a Block, Connect, Remove Switch, or Chain command that affects the port.
 - 2) Fail a Prohibit command that affects the path to the CV converter.
 - b. If the CV converter is not operational, I/O operations will:
 - 1) Issue a warning if an Unblock, Disconnect, RESTORE SWITCH, or Unchain command is entered that affects the port.
 - 2) Issue a warning if an Allow command is entered that affects the path to the CV converter.
- If you specify `NOCheck`, I/O operations will not check for a CV, and will process the command under the set of rules that apply.

If the path is chained and the foregoing requirements are met, you must specify `NOCheck` or `Force` to unchain the path or to block any of the ports in the path.

5. Make sure the channel I/O interface, the control unit I/O interface, and the link between the two switches are all attached properly. Ports A, M, E, and D in Figure 129 on page 408 are determined by these attachments. Also make sure the destination link address (port D) is defined properly in the IODF or IOCDS.
6. Remember that defining a chain and removing a defined chain can affect all the participants in the issuing I/O operations’ consensus vary-path processing.

Two Scenarios for a CH Chain in a CNC Path

Configuration:

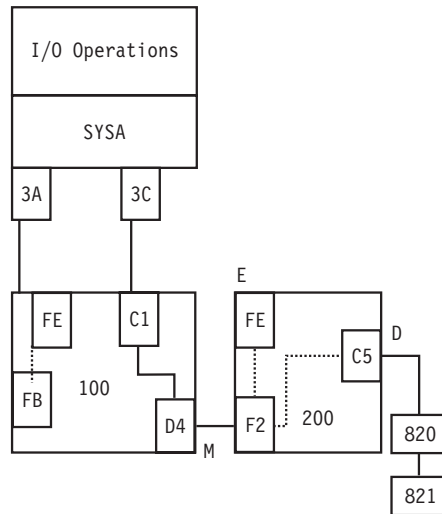


Figure 130. Chain - Scenario 1.

Procedure:

```
VARY PATH(200,3C),OFFLINE,FORCE  
CF CHP(3C),OFFLINE,FORCE
```

```
CONNECT (C1) (D4) 100
```

```
CF CHP(3C),ONLINE  
VARY PATH(200,3C),ONLINE,FORCE
```

```
RESET S 200  
CHAIN (F2) 200 (D4) (C1) 100
```

To remove the definition, enter:

```
UNCHAIN (F2) 200 (D4) (C1) 100 VARY FORCE NOB
```

The Force option is required because the Unchain command removes the last path to the CUP on the destination switch.

If you do not configure CHPID 3C offline, enter: BLOCK (C1) 100

Configuration:

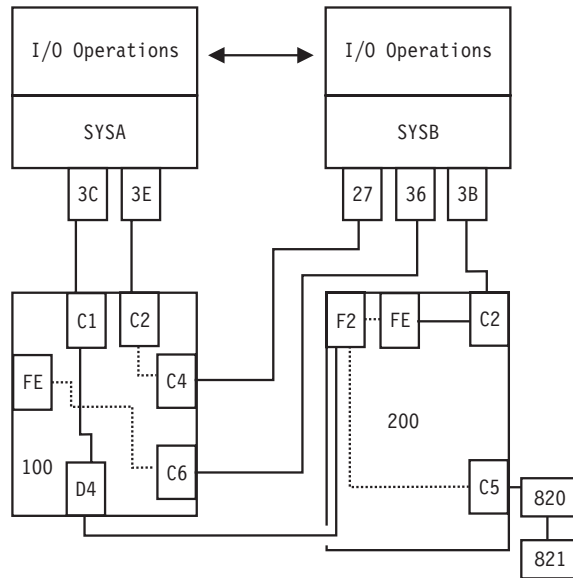


Figure 131. Chain - Scenario 2.

Procedure: enter from SYSA:

```
VARY PATH(200,3C),OFFLINE,FORCE
CF CHP(3C),OFFLINE,FORCE
```

Then, enter from SYSB: CHAIN (F2) 200 (D4) (C1) 100

Finally, enter from SYSA:

```
CF CHP(3C),ONLINE
VARY PATH(200,3C),ONLINE,FORCE
RESET S 200
```

To remove the definition, enter from SYSB: UNCHAIN (F2) 200 (D4) (C1) 100
VARY FORCE NOB

The Force option is required because the Unchain command removes the last path to the CUP on the destination switch. If you do not configure CHPID 3C offline, enter: BLOCK (C1) 100

When a Command Fails

If you receive a message that a command failed, you first make sure I/O operations is running. Then, you should try to determine why the command failed, so you can correct it or report the problem to IBM.

- Make sure I/O operations is started. In MVS/ESA, to check if I/O operations has been started on the primary host, enter `display jobs, ESCON_Manager_procedure_name`. If I/O operations's procedure name appears in the list, I/O operations has been started.
- Determine why the command failed. If a command does not complete successfully, I/O operations issues an error message indicating a host did not perform the command or a switch failed to perform the command, or both. Return codes and reason codes are issued when commands fail when using the API.

- Use the DISPLAY RESULTS command. This command displays information to help you quickly determine if the problem is host-related, switch-related, or both. A command can fail for one or more reasons, including switch-related or I/O operations-related problems.

The error message you receive might not provide you with sufficient information to determine the reasons why your command failed. If you need more information to understand the problem, you can display information about your configuration status to determine the specific reasons.

- Correct the command failure. Once you have determined the cause of a command failure and the present configuration status, you can begin to correct the problem using backout, reset, force, or other options.

A “Partially-ESCON” Path

A partially-ESCON path is a path in which either the channel or the control unit in the I/O path is not an ESCON object.

To ensure system integrity when processing its switching commands, I/O operations relies on node descriptor (ND) or node element descriptor (NED) data from the ESCON objects involved. In a switchable partially-ESCON path, therefore, I/O operations cannot always ensure the same degree of system integrity that it can for “fully” ESCON paths.

Channel Types

Refer to “Types Of Channels” on page 413 and Chapter 1 of *System Automation for OS/390 User’s Guide* for information about the various channel types.

Types of channels:

CFR	Coupling facility receiver
CFS	Coupling facility sender
CNC_P	A point-to-point ESCON channel
CNS_S	A switchable ESCON channel
CTC_P	A point-to-point channel-to-channel channel
CTC_S	A switchable channel-to-channel channel
CVC_P	A point-to-point converted channel
CBY_P	A point-to-point byte converter channel
FC	A FICON point-to-point channel
FC_S	A FICON switched channel
FCV	A FICON-to-ESCON bridge
FC_?	A FICON incomplete

Note: The last character of the DCM managed channels’ acronyms is ‘M’, for example, FCM or CNCSM.

OSA	An open systems adapter channel
BLOCK	A parallel channel operating in block mode
BYTE	A parallel channel operating in byte mode

UNDEF

A channel that is not defined

Types Of Channels

I/O operations supports the following channel operational modes:

- ESCON Multiple Image Facility (EMIF) mode
- Logical Partition (LPAR) reconfigurable mode
- LPAR non-reconfigurable mode
- Basic mode

I/O operations can display, or return data on, all the channels known to it. For ESCON channels and for parallel channels operating in block mode, the program can be used to change the connectivity between these resources and others in their paths.

ESCON Channels

I/O operations supports the following types of ESCON channels.

An ESCON (CNC) Channel

A CNC channel path is used to transfer data between a host system image and an ESCON control unit. I/O operations can display data about a CNC channel path and change its connectivity.

An ESCON Channel-to-Channel (CTC) Channel

When a CTC channel is defined to one system image, or host, it can communicate with a CNC channel defined on another host so that the two system images can communicate with each other for *intersystem communication*. The CTC channel views each CNC channel with which it communicates as a pseudo control unit, and vice versa.

An ESCON Channel Operating in Converted (CVC) Mode

A CVC channel path transfers data in blocks and a CBY channel path transfers data by bytes. A CVC or CBY channel path is an ESCON channel that has been converted so that it can interface with an ESCON Converter Model 1 (9034), or equivalent, for communication with a parallel control unit.

A CVC or CBY path always resembles a point-to-point parallel path, regardless whether it passes through a switch or not. Thus, a switchable CVC or CBY path must pass through a switch as a static connection.

A Parallel Channel

I/O operations can display information about parallel channels that operate in either byte (BY) or block (BL) mode. I/O operations can also change connectivity to a parallel channel operating in block mode.

Coupling Facility Channels

I/O operations can display and return data about a Coupling Facility Receiver (CFR) channel and a Coupling Facility Sender (CFS) channel. However, I/O operations does not provide connectivity control for these types of channels.

OSA Channels

The OSA channel provides an S/390 internal channel attachment to local area networks (LANs) that support Internet protocols such as fiber distributed data interface (FDDI), token ring, Ethernet, and high speed serial interface (HSSI).

Making Connectivity Changes

You can use I/O operations as the single point of control for I/O connectivity changes in the active I/O configurations under its management.

In addition to an I/O operations base program running on a host, the host must be able to play a role with a group of hosts.

To develop safe procedures to protect your system's connectivity, you need to understand the functional characteristics of the dynamic switches that you control with SA OS/390. For example, the local console of IBM ESCON Directors has a setting that allows you to choose how the switch is restarted. If your operating procedures are to restart:

- From the same configuration that was most recently active on the ESCON Director, use the ESCON Director's ACTIVE=SAVED setting
- From a fixed IPL file, regardless of what was most recently active on the ESCON Director, you can set the ESCON Director to use that file

But note that your use of SA OS/390 varies accordingly. Changes that you make through SA OS/390 are only automatically restored after events like power failures if the ESCON Directors are set to ACTIVE=SAVED; if they are not, consider using SA OS/390 functions to update each ESCON Director's IPL file in accordance with your updates directly to the active configuration.

ESCON resources are self-defining. The relevant data is contained in a node descriptor (ND) of a port or an ESCON channel and in a node element descriptor (NED) of a switch device. I/O operations uses this data to ensure system integrity in its commands. It can also use the serial number of an ESCON resource to identify it.

When only the channel or the control unit is an ESCON unit, the non-ESCON unit can impose some limitations on I/O operations' ability to ensure coordination between the logical definition of the unit and its physical presence. (Unlike ESCON units, a non-ESCON unit is not self-defining.)

NOForce|NOCheck|Force Option Set

With your choice among NOForce, NOCheck, and Force, you determine the stringency with which I/O operations forces the completion of a switching connectivity command under two conditions:

- If any of I/O operations's relevant vary path requests fail.
- If I/O operations checked and detected the presence of a protocol converter (CV) between the I/O interface of a parallel channel operating in block mode and the port on a dynamic switch. (NOForce is required for the REMOVE CHP and RESTORE CHP commands. NOCheck has an identical effect on these 2 commands.)

NOForce: (IBM-supplied default) instructs I/O operations to send a connectivity command to the specified switch(es) only if all of the following conditions have been met:

1. The results of consensus vary-path processing results are unanimously affirmative.
2. If a CV converter has been detected in the parallel channel path, completion of the command will not potentially interrupt dynamic data transfer through the specified switch(es).
3. If the command is disrupting a CVC channel, that CHPID has been configured offline.

If you specify NOForce, you must also specify Vary. NOForce requires the update level of authorization if I/O operations is secured by RACF or an equivalent program.

NOCheck: instructs I/O operations to send a connectivity command to the specified switch(es) only if all of the following conditions listed below have been met:

1. The results of consensus vary-path processing results are unanimously affirmative.
2. If the command is disrupting a CVC channel, that CHPID has been configured offline.

If you specify NOCheck, you must also specify Vary. NOCheck requires the update level of authorization if I/O operations is secured by RACF or an equivalent program. Commands entered at the system console automatically receive the highest, or control, authorization level.

Force: instructs I/O operations to send a connectivity command to the specified switch(es).

- If you specify Force, you must specify NOBackout.
- You cannot specify Force on a Remove Chp or Restore Chp command.
- Force requires the control level of authorization if I/O operations is secured by RACF or equivalent.

Backout|Nobackout Option Set

By choosing between BBackout and NOBackout, you can determine whether I/O operations will attempt to reverse, or to back out, its successful vary path offline requests if at least one relevant path could not be varied offline successfully.

- If the changes could be backed out, pathing status is returned to the state before the command was processed.
- If the changes are not backed out, pathing status may be mixed. (You can enter a DISPLAY RESULTS or DISPLAY VARY command to study the resulting status.)

BBackout (IBM-supplied default): instructs I/O operations to attempt to back out the vary path offline requests that were successful under a number of error conditions, such as: requests if at least one path affected by the command could not be varied offline successfully. Some of the conditions that would require I/O operations to attempt to back out vary path requests are:

- At least one relevant vary path offline request was not successful. For example, a voting I/O operations has returned a negative vote or the time limit for consensus processing was reached before all votes were returned.
- A switch affected by the connectivity command responded negatively.
- A channel could not be configured offline successfully with a Remove Chp command.

If you select BAckout, you cannot select Force.

NOBackout: instructs I/O operations to not reverse any vary path requests that have been completed successfully during command processing or that are still in progress. You must specify NOBackout if you specify either NOVary or Force.

Restore (Enable) a Switch

When the system operator completes a maintenance procedure and turns power to the unit on, you enter the RESTORE SWITCH command and specify the switch device number.

The I/O operations at which you issued the command) the issuing I/O operations) first allocates, or attaches the switch. Then it activates the configuration for the switch that the unit is programmed to select whenever power is turned on to it. Finally, it ensures all the paths in the selected configuration are varied online.

I/O operations informs you the command completed successfully. (If it completed unsuccessfully, you can enter the DISPLAY RESULTS command to obtain more data.)

Switch Ports

CH A CNC or CVC CHPID is defined for this port.

CU A control unit is assigned to this port.

CHCH

More than one CNC or CVC CHPID is assigned to this port.

CHCU

Both a CHPID and a control unit are assigned to this port. CHCU is valid if the CHPID is a CTC channel. I/O operations does not report such a dual assignment as a configuration mismatch. However, CHCU is not a valid combination for any other type of CHPID. I/O operations does report such a dual assignment as a configuration mismatch.

CV An ESCON Converter Model 2 (CV converter) is attached to this port. A CV converter (9035) converts ESCON protocol to a parallel CHPID operating in block or byte mode.

CVCH

A CV converter and an ESCON channel (CNC or CVC) are both assigned to this port. I/O operations reports such a dual assignment as a configuration mismatch.

CVCU A CV converter and a control unit are assigned to this port. I/O operations reports such a dual assignment as a configuration mismatch.

Logical Tokens

A *logical token* is an identifier created by hardware configuration description (HCD) for each I/O resource that is defined in an input output definition file (IODF). If two or more systems share an IODF, they will have the same logical token for the same I/O resource.

Allow|Prohibit Mask of a Port

Each port is either allowed to have, or prohibited from having, a dynamic connection with another port on the same switch.

Collectively, these pairs of connectivity attributes form an *allow/prohibit mask*.

- A Designates the ports for which a dynamic connection is allowed
- P Designates the ports for which a dynamic connection is prohibited

An allow/prohibit mask is displayed by I/O operations as part of a matrix of a switch configuration. The program displays switch matrixes in its sample I/O operations ISPF (ESCM ISPF) dialog and at a graphic workstation. See examples in *System Automation for OS/390 User's Guide*.

An ESCON-in-Converted-Mode (CVC) Path

An ESCON converted channel (CVC) is an ESCON channel that has been initialized to operate in converted mode to allow data to be transferred between its host and a parallel control unit.

A protocol converter such as the ESCON Converter Model 1, or equivalent, must be attached to the control unit. This type of converter is transparent to I/O operations.

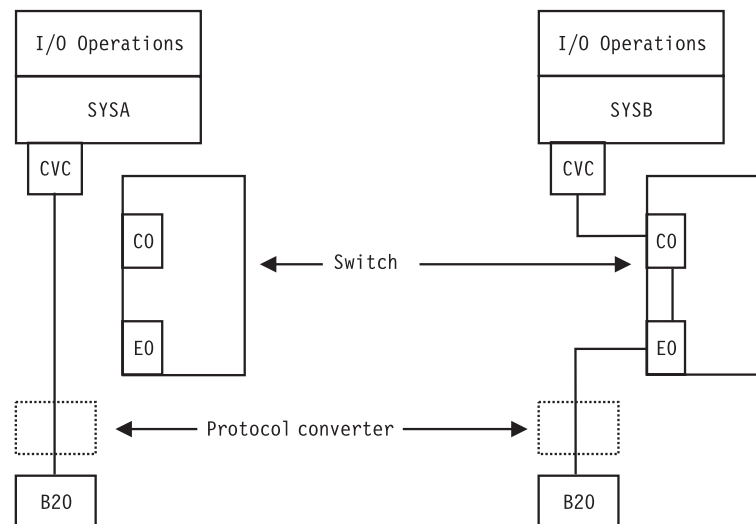


Figure 132. ESCON-in-Converted-Mode - Sample.

Physical Tokens

A *physical token* is a 32-byte field that describes an I/O resource. Information in the physical token comes from either a node element descriptor (NED) or a node descriptor (ND). A NED is a 32-byte field that describes a node element of an I/O resource. A NED is associated with a physical control unit or device. A ND is a 32-byte field that describes a node interface of an I/O resource. A ND identifies a physical CHPID. When a physical token is input, the first 4 bytes are not used for comparison.

Using Port Names as a Tool in Switching Commands

When you enter a switching command, you change the port attributes that control data transfer on the ports of the switch through which the path passes. The single switch or the pair of chained switches in a switchable path must be allocated to the issuing I/O operations (primary host) in the command. To facilitate the connectivity management of these switchable paths, I/O operations lets you assign, or write, a name of up to 24 characters to each addressable port on a switch.

A *port name* can consist of character strings, each of which identifies one of the resources in the path leading to or from the port. If you use the same character string in more than one port name, that character string effectively serves as a *generic name*.

To use a generic name instead of a full port name, you only need to mask off the irrelevant characters in the port name that precede or succeed or intervene between the generic character string you want to use. As a mask, you can place one asterisk (*) in each port name.

Switch Port Hardware Status on a Display Command

On the output of DISPLAY commands, I/O operations displays the hardware status for a port.

```

Port Status
H S C P
├── P - Port is prohibited from being dynamically connected with
│   │   at least one other port
│   └── X'xx' - address of the port with which this port is statically
│       connected
├── S - Port is blocked from all communication
│   └── + - port is DCM eligible and allowed for DCM activities
│       - - port is DCM eligible and not allowed for DCM activities
├── Cx- Port is 1 of 3 ports in a chain (C is displayed to
│   │   the left of another state)
│   └── A - Attachment of port is not valid
│       D - Bridge port degraded
│       I - Bridge port offline (inactive)
│       L - Link failure detected
│       M - Port is in maintenance mode
│       N - Not installed
│       O - Port is offline
│       S - Service is required for this port
│       _ - (underscore) Port is online
└──

```

Figure 133. Switch Port Hardware Status Format.

For further information, refer to the program information block (PIB), which is described in the output block listed in "QUERY SWITCH" in *System Automation for OS/390 Programmer's Reference*.

Remove (Quiesce) a Switch

When a service representative needs to have a switch quiesced and disabled in order to remove the unit, you can enter the I/O operations REMOVE SWITCH command to vary all the paths to and through the switch offline, including any paths to the switch (device) from the other hosts in its group and any chained paths leading to another switch. Optionally, you can specify the Disable option, so the service representative only has to turn power off to the unit. (You should *not* use the VARY DEV or the REMOVE DEV commands.)

I/O operations issues the appropriate vary path offline requests to the hosts. (It will not vary the path to the control unit port of the switch because it needs to communicate with the switch.)

The issuing I/O operations then sends the command to the switch (ESCD) and informs you that the command completed successfully. If the command completed

unsuccessfully (for example, if a vary path request failed) you can analyze the data with the the appropriate display command. If you cannot resolve the situation and the switch must be removed, you can rerun the REMOVE SWITCH command with the Force option. However, no paths will be varied offline.

Port Switching Commands

You can change connections of ports on a switch with these commands.

Command	Explanation
PROHIBIT p (C0) (EA) 0100	PROHIBIT prohibits data from being transferred dynamically between C0 and EA. Dynamic data transfer between C0 and D4 is not affected.
CONNECT c (C0) (EA) 0100	CONNECT statically connects C0 and EA for exclusive data transfer, despite the prohibition of a dynamic connection between these two ports. However, data cannot be transferred between C0 and D4.
BLOCK b (C0) 0100	BLOCK blocks all data transfer through C0, regardless of its other connectivity. Data cannot be transferred between C0 and either D4 or EA.
UNBLOCK u (C0) 0100	UNBLOCK unblocks C0, so that the static connection is again in effect.
DISCONNECT n (C0) (EA) 0100	DISCONNECT removes the static connection between C0 and EA, but data cannot be transferred between these two ports because they are still prohibited from having a dynamic connection. However, data can now be transferred between C0 and D4.
ALLOW a (C0) (EA) 0100	ALLOW allows data to be transferred dynamically between C0 and EA.

A Parallel Channel in Block (BL) Mode

Requirements for a Parallel Channel

- The parallel channel must be operating in block (BL) mode.
- The control unit in the path must be an ESCON-capable and “cooperating” control unit.
- The path can be switchable or nonswitchable.
- If the path is switchable, a protocol converter (CV object):
 - A protocol converter, such as the ESCON Model 2 (9035), or equivalent, must be attached between the channel I/O interface and the switch.
 - The switch must be allocated to the issuing I/O operations.

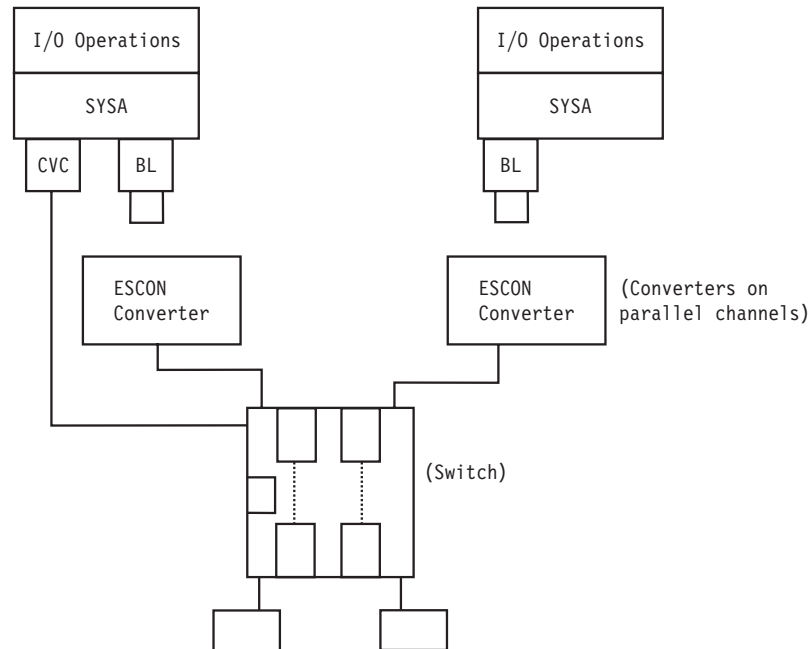


Figure 134. Parallel Channel in Block Mode - Sample.

Switching Commands

The members of a group (domain) must be either:

- The issuing I/O operations, which is the base program (primary host) at which you enter, or to which you send, the command.
- An I/O operations base program that shares access to at least one dynamic switch in common with the issuing I/O operations.

If the switching command contains Vary (path) as an implicit or explicit option, the issuing I/O operations broadcasts the request to the other base programs. Each base program issues the appropriate vary path requests to its own system (host) image. The results must be known by the issuing I/O operations within a preset time interval. After the results are in or when the time interval expires, the issuing I/O operations determines whether it and the voters have reached the consensus that all the vary path requests completed successfully. If so, the issuing I/O operations proceeds with command processing.

Notes:

1. Because an issuing I/O operations is also called the primary host, or the primary I/O operations host, a voter is also called a secondary host, or a secondary I/O operations host.
2. A voter is *active* if it has not been excluded, or reset, from voting, by the Reset Host command.
3. A voter is *inactive* if it has been excluded by a Reset Host Off command.
4. A voter is *purged* if it has been excluded by a Reset Host Purge command. To I/O operations, a purged voter simply does not exist.
5. The preset time interval is either the IBM-supplied default of 60 seconds or a time interval set with the Reset Timeout command.

A Sample Way to Modify a Switch Matrix

When a switch matrix is displayed, you can make changes on it; you do not have to enter commands on the command line. In fact, you can invoke the DISPLAY RESULTS command, which is described more fully on page 223. Refer to *System Automation for OS/390 User's Guide* for information about a switch matrix.

Port Addresses

A port address is a two-digit hexadecimal number that identifies an addressable port on a switch.

Switch Unique Identifier

You can use the DISPLAY SWITCH command to display the 26-character switch unique identifier. The format is:

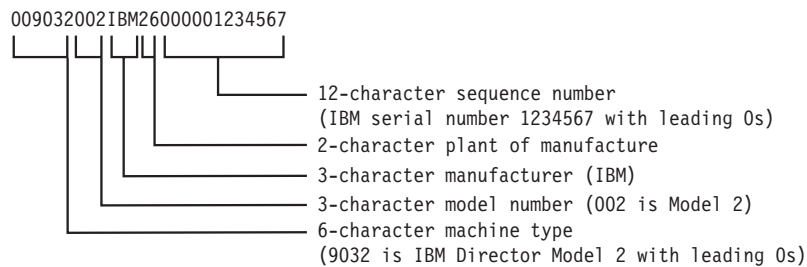


Figure 135. Switch Unique Identifier Format.

Processing a Vary Path Request

When you have chosen Vary as a connectivity option, the issuing I/O operations and its active voting constituency issue the appropriate vary path requests to their host operating system images. The host images comply with the appropriate VARY PATH ON/OFF commands.

General Rules

I/O operations adheres to the following rules. When the vary path processing has been completed successfully, these rules are of only moderate interest to you. However, if one or more requests failed, you need to know these rules to help you analyze the cause of the failure.

- If I/O operations knows that the appropriate vary path requests have already been performed, it takes no action. For example, if a port is blocked, all paths are varied offline. If a Prohibit command is then entered for the blocked port, no further action is taken for that port.
- If two port attributes are to be changed with the same Writeport or Writeswch command, the hierarchy remains in effect. (See "Port Switching Commands" on page 420 for more information on port hierarchy.) For example, if you specify that a port be both blocked and disconnected with the same command, I/O operations will perform the vary path processing needed to block that port and disconnect it.
- To keep I/O path disruption to a minimum should a command fail, I/O operations varies:
 - Offline *before* it sends a command to a switch.
 - Online *after* it sends a command to a switch.

A chained path adds another level of complexity to these rules. Paths through all three ports involved in a chain might be affected by the same connectivity command. For example, the command might affect the middle port's connectivity. However, vary path processing might be required for the port on the destination switch that ends the chain.

If a CV converter is in the chained path, you must specify NOCheck or Force as a connectivity option if you want to block any of the 3 ports involved or you want to unchain the chain. (If you specify NOForce, the command will fail.)

VTAM Application Name

For communication among I/O operations base programs, I/O operations uses VTAM. To participate in this intersystem communication, therefore, a base program must be defined as an application according to the rules for VTAM definitions. For information on these definitions, refer to the I/O operations program directory for the host operating system on which you intend to use the application.

VTAM returns the VTAM application name to a base program when it is started, thus identifying that base program. The base program uses its *VTAM application name* as its *host name* to register itself to the members of its group when it allocates each dynamic switch.

*To get a list of the VTAM (application), or host, names known to an issuing I/O operations (primary host), enter the Display Host command as D H * or view the pages of that host's online notebook.*

To remove or restore a base program (host) from participating in consensus vary-path processing, use the Reset Host command. (This command has three options: Off, Purge, and On.)

Appendix B. General Considerations for I/O Operations Commands

Table 6 lists the I/O operations commands in alphabetical order with a cross-reference that shows where they can be used and the access authorization levels they require.

Notes:

1. Access authorization is not required, although it is very advisable.
2. Authorization level is not checked for I/O operations commands that are entered at the system console. The control level of authorization is assumed.
3. The cross-reference numbers in the following table are described below:
 - C = Control authorization level is required.
 - G = Function is generated implicitly, but RACF, or equivalent, authorization is required if I/O operations is used in conjunction with a security program.
 - I = Command function is generated implicitly as part of a G function. RACF, or equivalent, authorization does not apply.
 - R = Read authorization level is required.
 - U = Update authorization level is required.
 - UC = Update authorization level is required for the NOForce|NOCheck options. Control level is required for the Force option.
 - Y = Command must be entered explicitly. RACF authorization is required.
 - = The command is not available, neither explicitly nor implicitly.

Table 6. Commands, Their Availability and Access Authorization Levels

RACF Profile Name	RACF Authorization Level							Command Name
	Application Program Interface (API)							
	Switch Configuration Matrix (SA OS/390 Workstation and I/O Operations ISPF Dialog)							
	I/O Operations ISPF Dialog Command							
	Graphic View Window			System Console				
Not Applicable	-	-	-	-	-	Y	System Commands to Start/Stop	
IHV.ALLOW	UC	Y	I	Y	Y	Y	ALLOW	
IHV.BLOCK	UC	Y	I	Y	Y	Y	BLOCK	
IHV.CHAIN	UC	Y	-	Y	-	Y	CHAIN	
IHV.CONNECT	UC	Y	I	Y	Y	Y	CONNECT	
IHV.DELETE.FILE	C	Y	G	-	G	-		
IHV.DISCONNECT	UC	Y	I	Y	Y	Y	DISCONNECT	
IHV.CHP	R	Y	-	Y	I	Y	DISPLAY CHP	
IHV.DEV	R	Y	-	Y	I	Y	DISPLAY DEVICE	
IHV.HOST	R	Y	-	Y	I	Y	DISPLAY HOST	
IHV.NAME	R	Y	I	Y	I	Y	DISPLAY NAME	
IHV.PORT	R	Y	I	Y	I	Y	DISPLAY PORT	
IHV.RESULTS	R	Y	-	Y	-	Y	DISPLAY RESULTS	
IHV.SWITCH	R	Y	I	Y	I	Y	DISPLAY SWITCH	
IHV.TIMEOUT	R	Y	-	Y	-	Y	DISPLAY TIMEOUT	

Table 6. Commands, Their Availability and Access Authorization Levels (continued)

RACF Profile Name	RACF Authorization Level							Command Name
	Application Program Interface (API)							
	Switch Configuration Matrix (SA OS/390 Workstation and I/O Operations ISPF Dialog)							
	I/O Operations ISPF Dialog Command							
				Graphic View Window		System Console		
IHV.VARY	R	Y	-	Y	-	Y	DISPLAY VARY	
IHV.GETLOCK	C	Y	-	Y	G	Y	"GETLOCK I/O operations"	
IHV.LOGREC	C	Y	-	Y	-	Y	"LOGREC I/O operations"	
IHV.PROHIBIT	UC	Y	I	Y	Y	Y	"PROHIBIT I/O operations"	
IHV.QUERY.ENTITY	R	Y	-	-	G	-	"QUERY ENTITY HOST I/O operations"	
IHV.QUERY.FILE	R	Y	G	-	G	-	"QUERY FILE I/O operations"	
IHV.QUERY.INTERFACE	R	Y	-	-	G	-	"QUERY INTERFACE CNTLUNIT"	
IHV.QUERY.RELATION	R	Y	-	-	G	-	"QUERY RELATION HOST"	
IHV.QUERY.SWITCH	R	Y	G	-	G	-	"QUERY SWITCH I/O operations"	
IHV.REMOVE.CHP	UC	Y	-	Y	Y	Y	"REMOVE CHP I/O operations"	
IHV.REMOVE.DEV	UC	Y	-	Y	G	-	"REMOVE and RESTORE DEV" .br "REMOVE and RESTORE DEV (API)"	
IHV.REMOVE.SWITCH	UC	Y	-	Y	-	Y	"REMOVE SWITCH I/O operations"	
IHV.RESET.HOST	C	Y	-	Y	Y	Y	"RESET HOST I/O operations"	
IHV.RESET.SWITCH	C	Y	-	Y	Y	Y	"RESET SWITCH I/O operations"	
IHV.RESET.TIMEOUT	C	Y	-	Y	-	Y	"RESET TIMEOUT I/O operations"	
IHV.RESTORE.CHP	U	Y	-	Y	Y	Y	"RESTORE CHP I/O operations"	
IHV.RESTORE.DEV	UC	Y	-	Y	G	-	"REMOVE and RESTORE DEV" .br "REMOVE and RESTORE DEV (API)"	
IHV.RESTORE.SWITCH	UC	Y	-	Y	-	Y	"RESTORE SWITCH I/O operations"	
IHV.SYNC.SWITCH	C	Y	-	Y	Y	Y	"SYNCH SWITCH I/O operations"	
IHV.UNBLOCK	UC	Y	I	Y	Y	Y	"UNBLOCK I/O operations"	
IHV.UNCHAIN	UC	Y	-	Y	-	Y	"UNCHAIN I/O operations"	
IHV.UNLOCK	UC	Y	-	Y	G	Y	"UNLOCK I/O operations"	
IHV.WRITE	C	Y	I	Y	G	Y	"WRITE I/O operations"	
IHV.WRITEFILE	C	Y	G	-	G	-	"WRITEFILE I/O operations"	
IHV.WRITEPORT	UC	Y	-	-	-	-	"WRITEPORT I/O operations"	
IHV.WRITESWCH	UC	Y	G	-	G	-	"WRITESWCH I/O operations"	

General Information and Tips for Using Multisystem Commands

1. If you are entering an array or table, it must be fully contained in a single variable, by itself, and with no leading blanks (trailing blanks are acceptable because they will be ignored). Without this restriction, you could enter an array or table that has bytes that look like blanks, will be parsed as blanks, and will make the results unpredictable.
2. Release 3 array elements are checked for validity because they are all character data. Tables are not checked for validity because numeric data is assumed to be

hexadecimal (and so can never be invalid). Tables are not subject to translation and only the RNUMs are taken from the table.

3. For Release 3, host applnames will be checked for validity. Valid names follow MVS member name rules.

Note: This only applies to Query commands.

Info like xxxx(n and
xxxx(n) is interpreted as Release 2 only when "xxxx"
is not a defined object type
For Release 3, xxxx can be HOST, RNUM, PTOK, LTOK, and so on.

"HOST()" and "XSYS()" are interpreted as an error (no name is
included between the begining and ending parenthesis)

4. Release 2 EXECs and programs should function with Release 3 as long as the EXEC or program is using the returned HDR_SIZE and ROW_SIZE (or Format_id) to parse through the output structure, with the following exceptions:
 - a. A summary ROW for each host will be returned as the FIRST row for each responder host that is returning data (does not have a command start failure). This ROW is marked by RCODE='5100FFFF'x and contains (currently) status bits.
 - b. Query Interface Switch/CntlUnit commands change their output structures to move the switch/control unit description into every row instead of having it reside in the header; with multihost responses, there is no way to resolve which switch description would have stayed in the command header (each host could have a different description of the switch/control unit).
5. For Release 3 table input, the responder must be the same as the host targeted to return the response.
6. For Query Interface commands (only), when the interface is not found on the entity1 switch/cu, row rcode='5100 0016'x.
7. Query Interface Switch returns no rows when the switch being queried is closed. Also, Query Interface CntlUnit returns no rows when the PID for the control unit is not valid.
8. The lock owner field in the QEH command is only valid when the responder host is the same as the object/entity host. For example, if you issue a Query Entity Host Value HOST(*) SCOPE Value HOST(*) command, the QEH that is returned will contain #hosts x #hosts ROWs (because each host will return all the hosts it knows about) but the only valid lockowner fields will be where:
QEH.ROW(i).RESPONDER.APPLNAME = QEH.ROW(i).APPL_NAME.

General Considerations for Using the Query Entity/Interface/Relations Commands

1. **Input for Query Entity and Query Interface commands** A Query Relation table can be input for all Query Entity and Query Interface Switch commands.
2. **Data returned** For the Query Entity, Query Interface, and Query Relation commands, use the self-description data (header size, row size, format ID) that is returned with each output structure to parse the data.
3. **Duplicate rows** No duplicate rows will be returned unless an array or table is used as the second entity asking for duplicate information to be returned. This implies that unless complete pathing (host-to-device or CHPID-to-device) is specified in your command, you could be getting summary data back.

For example, assume your configuration contains CHPIDs 10, 11, and 12, each with a path to control unit 100. Additionally, control unit 100 has devices 100–107 on it.

A **Query Relation CU 100 Chp Value *** (tell me all CHPIDs that access device 100) would return 3 data QRO.ROWS to describe the 3 paths (CHPID 10 to device 100, CHPID 11 to device 100 and CHPID 12 to device 100). These are examples of complete path definitions.

If you issue **Query Relation CU 100 Dev Value 100** (tell me whether device 100 is defined to be on CU 100), only 1 data QRO.ROW is returned (not 3) indicating that there is a logical relationship between the 2 entities but not complete details (paths) on the relation because the command did not ask for complete pathing.

4. Multiple rows

A single array entry could generate more than 1 row returned. For example, the relation between a device and a host will return as many rows as there are CHPIDs that access the given device.

5. **Rules for columns of data** Although the same structure is returned for every Query Relation command, different columns of data are returned for the different variations of the commands. The following rules apply:
 - a. STATBITS are set for every command.
 - b. The columns between HOST and DEVICE are command-dependent; that is, Query Relation Host-Host commands return only the HOST column, Query Relation Host-Chp commands return both the HOST and CHPID columns, Query Relation Host-Switch commands return HOST, CHPID, PORTIN, SWDEVN, and LSN columns (note that STATBITS are required to validate PORTIN and SWDEVN as these might or might not be known), and so on.
 - c. Like entities are not allowed except host-to-host relations, which indicate VTAM relations, and switch-to-switch relations, which indicate chaining relations.
 - d. Data for a secondary host (voting I/O operations) will be marked INCOMPLETE because data bases are not shared among participating I/O operations.
 - e. When no host is named in a command, the primary host (issuing I/O operations) is assumed.
6. **Sorting of output** Sorting is done only if you specify Value or Range as options for the format of the output. If you specify Array or Table, I/O operations returns data in the same order as the input array or table.
7. **Chpid filtering of pathing information is handled as follows:**
 - a. If a channel is reserved to a partition that is not the one you are running on, the channel will appear as not defined.
 - b. I/O operations only returns paths where the Chpid is not reserved to another partition.
8. **Reason codes that are related to Return codes**

In addition to the return codes (RCs) and reason codes that are also returned for the Display and the Query Switch commands, such as CHSC data refreshed, lock indicators, switch configurations, and so on, the following combinations are unique to the Query commands:

 - With RC = 4, a reason code of X'51001004' indicates that some host has at least one summary row bit set.
 - For RC = 8, a Getmain failure occurred.

- With RC = 20, a reason code of X'51xyyyy' indicates that I/O operations has detected an internal error. You should report this problem to IBM.
9. **Overflow conditions** In the Query Entity, Query Interface, and Query Relation commands the header and summary rows of the output contains a bit to indicate that an overflow condition was detected in the response buffer.
- **If you entered a Query Entity or Query Interface command:**
Enter another (similar) command to retrieve the subset of data that has not been returned.
For example, if the command that overflowed was **Query Entity Dev Value *** and the last device entry returned to you is (device number) 743, the next command you should issue is **Query Entity Dev Range 744-***.
If you are using an array (or table) as input for a command, you should continue to use the array/table form of command but adjust your array/table input to begin at the (*output_num_rows+1*) element in your next array command.
 - **If you entered a Query Relation command:**
When translating your original command to a new format due to an overflow return/reason code, you might need to begin your new command with the last value returned for the second entity (not the one after the last value returned) or some pathing information could be lost.
For example, assume you have the following partial configuration:
Host = *IHVAPPL1* CHPIDs = *1,2,3,4,5* CntlUnits = *100* (accessed by CHPIDs *1,2,3*), *200* (accessed by CHPIDs *3,4,5*) Devices = *100-10F* (off CU *100*), *200-20F* (off CU *200*)
Assume (for the purposes of this example only) that 7 is the maximum number of rows that can be returned with any Query Relation command (in reality this number is more on the order of 2700).
You issue **Query Relation Host IHVAPPL1 Dev Value *** to request all the IOCDS paths defined for this host.
I/O operations returns 7 rows describing paths (*1,100*), (*2,100*), (*3,100*), (*1,101*), (*2,101*), (*3,101*) and (*1,102*) with RC and RSN indicating overflow and the MORE_DATA bit in the output table set.
Because you only received 1 of 3 rows (paths) back for device *102*, you must now use the command **Query Relation Host IHVAPPL1 Dev Range 102-*** to retrieve the pathing information for this host.
10. **Chaining** Chaining is indicated in an AEAM for a port by virtue of the log_class=switch (port) and the LOGICAL bit being set.
If the path is chained, the switch that appears in the row for a path is either:
- a. The dynamic switch in the chain, or (if there is no dynamic switch)
 - b. The switch that the CHPID for the path is defined (in IOCDS) to be on (by the SWITCH= parameter).
11. **“Physical” rules with respect to the EAM/AEAM are:**
- a. EAM.LOGICAL or AEAM.LOGICAL = 1 (binary) means the entity is defined in the IOCDS. Additionally, Chain commands are considered logical definition data so they are also included in “logical” data.
 - b. PHYSICAL (current, history and not valid) means “according to link level data” (node element descriptors [NEDs] or node descriptors [NDs]).
 - c. Physical OTHERS bits (and NDs) are set when the interface for an entity being queried does not have the same validity as the entity itself (as represented in the physical ID). OTHER_NDs are validated by AEAM bits (OTHERS bits are never set in EAMs). The OTHER_ND that is returned

contains a ND for the attached entity that is causing the PID to be “more valid” than the interface being queried.

- d. Logical OTHER bit (and value) is set when the interface for an entity being queried does not have an IOCDS path defined to it on the interface being queried (that is, a physical-only path to the entity) but the entity is defined in the IOCDS and is accessible by other paths. The OTHER_LOG field will be set to the smallest logical value for the entity (for example, if control units 100 and 200 are hung off a port in a physical-only relationship but are defined to have other (IOCDS) paths elsewhere, the LOG_OTHER bit would be set for the (QIS) port’s AEAM and the OTHER_LOG would contain 100).

12. P_AMB, when on, means at least one of the following:

- a. All the (IOCP/IODF) defined interfaces to the control unit do not have the same WWID (only valid NDs are checked).
- b. For switches only: Even if all the WWIDs in the interfaces for the CNTL match, if the CNTLPID.WWID is different from the SWITPID.WWID (which is obtained from the NED), then the CNTLPID is marked P_AMB and remains REFLECTED.
- c. For CHPIDs only: When the attached ND’s WWID is not the same as the PID.WWID of the switch it’s supposed to be attached to.

Glossary

This glossary includes terms and definitions from:

- The *IBM Dictionary of Computing* New York: McGraw-Hill, 1994.
- The *American National Standard Dictionary for Information Systems*, ANSI X3.172-1990, copyright 1990 by the American National Standards Institute (ANSI). Copies can be purchased from the American National Standards Institute, 1430 Broadway, New York, New York 10018. Definitions are identified by the symbol (A) after the definition.
- The *Information Technology Vocabulary* developed by Subcommittee 1, Joint Technical Committee 1, of the International Organization for Standardization and the International Electrotechnical Commission (ISO/IEC JTC1/SC1). Definitions of published parts of this vocabulary are identified by the symbol (I) after the definition; definitions taken from draft international standards, committee drafts, and working papers being developed by ISO/IEC JTC1/SC1 are identified by the symbol (T) after the definition, indicating that final agreement has not yet been reached among the participating National Bodies of SC1.

The following cross-references are used in this glossary:

Contrast with. This refers to a term that has an opposed or substantively different meaning.

Deprecated term for. This indicates that the term should not be used. It refers to a preferred term, which is defined in its proper place in the glossary.

See. This refers the reader to multiple-word terms in which this term appears.

See also. This refers the reader to terms that have a related, but not synonymous, meaning.

Synonym for. This indicates that the term has the same meaning as a preferred term, which is defined in the glossary.

Synonymous with. This is a backward reference from a defined term to all other terms that have the same meaning.

A

ACF. Automation control file.

ACF/NCP. Advanced Communications Function for the Network Control Program. See *Advanced Communications Function* and *Network Control Program*.

ACF/VTAM. Advanced Communications Function for the Virtual Telecommunications Access Method. Synonym for *VTAM*. See *Advanced Communications Function* and *Virtual Telecommunications Access Method*.

ACO. Automated console operations.

active monitoring. In System Automation for OS/390, the acquiring of resource status information by soliciting such information at regular, user-defined intervals. See also *passive monitoring*.

adapter. Hardware card that enables a device, such as a workstation, to communicate with another device, such as a monitor, a printer, or some other I/O device.

Address Space Workflow. In RMF, a measure of how a job uses system resources and the speed at which the job moves through the system. A low workflow indicates that a job has few of the resources it needs and is contending with other jobs for system resources. A high workflow indicates that a job has all the resources it needs to execute.

adjacent hosts. Systems connected in a peer relationship using adjacent NetView sessions for purposes of monitoring and control.

adjacent NetView. In System Automation for OS/390, the system defined as the communication path between two System Automation for OS/390 systems that do not have a direct link. An adjacent NetView is used for message forwarding and as a communication link between two System Automation for OS/390 systems. For example, the adjacent NetView is used when sending responses from a focal point to a remote system.

Advanced Communications Function (ACF). A group of IBM licensed programs (principally VTAM, TCAM, NCP, and SSP) that use the concepts of Systems Network Architecture (SNA), including distribution of function and resource sharing.

advanced program-to-program communication (APPC). A set of inter-program communication services that support cooperative transaction processing in a Systems Network Architecture (SNA) network. APPC is the implementation, on a given system, of SNA's logical unit type 6.2.

alert. (1) In SNA, a record sent to a system problem management focal point or to a collection point to communicate the existence of an alert condition. (2) In

NetView, a high-priority event that warrants immediate attention. A database record is generated for certain event types that are defined by user-constructed filters.

alert condition. A problem or impending problem for which some or all of the process of problem determination, diagnosis, and resolution is expected to require action at a control point.

alert focal—point system. See entry for NPDA focal-point system under *focal—point system*.

alert threshold. An application or volume service value that determines the level at which System Automation for OS/390 changes the associated icon in the graphic interface to the alert color. System Automation for OS/390 may also issue an alert. See *warning threshold*.

APF. Authorized program facility.

API. Application programming interface.

APPC. Advanced program-to-program communications.

application. An OS/390 subsystem or job monitored by System Automation for OS/390.

Application entry. A construct, created with the customization dialogs, used to represent and contain policy for an application.

application group. A named set of applications. An application group is part of a System Automation for OS/390 enterprise definition and is used for monitoring purposes.

ApplicationGroup entry. A construct, created with the customization dialogs, used to represent and contain policy for an application group.

application program. (1) A program written for or by a user that applies to the user's work, such as a program that does inventory or payroll. (2) A program used to connect and communicate with stations in a network, enabling users to perform application-oriented activities.

ARM. Automatic restart management.

ASCB. Address space control block.

ASCB status. An application status derived by System Automation for OS/390 running a routine (the ASCB checker) which searches the OS/390 address space control blocks (ASCBs) for address spaces with a particular job name. The job name used by the ASCB checker is the job name defined in the customization dialog for the application.

ASCII (American National Standard Code for Information Interchange). The standard code, using a coded character set consisting of 7-bit coded characters

(8-bits including parity check), for information interchange among data processing systems, data communication systems, and associated equipment. The ASCII set consists of control characters and graphic characters. (A)

ASF. Automation status file.

assist mode facility. A System Automation for OS/390 facility that uses SDF and enables interaction with automation before System Automation for OS/390 takes an automation action. SDF prompts the operator with a suggested action, then provides options for using that action, modifying and using the action, or canceling the action. Also called assist mode, it is enabled using the customization dialogs, or dynamically.

authorized program facility (APF). A facility that permits identification of programs that are authorized to use restricted functions.

automated function. System Automation for OS/390 automated functions are automation operators, NetView autotasks that are assigned to perform specific automation functions. However, System Automation for OS/390 defines its own synonyms, or *automated function names*, for the NetView autotasks, and these function names are referred to in the sample policy databases provided by System Automation for OS/390. For example, the automation operator AUTBASE corresponds to the System Automation for OS/390 automated function BASEOPER.

automated console operations (ACO). The concept (versus a product) of using computers to perform a large subset of tasks ordinarily performed by operators, or assisting operators in performing these tasks.

automatic restart management. An OS/390 recovery function that improves the availability of specified subsystems and applications by automatically restarting them under certain circumstances. Automatic restart management is a function of the Cross-System Coupling Facility (XCF) component of OS/390.

automatic restart management element name. In MVS 5.2 or later, OS/390 automatic restart management requires the specification of a unique sixteen character name for each address space which registers with it. All automatic restart management policy is defined in terms of the element name, including System Automation for OS/390's interface with it.

automation. The automatic initiation of actions in response to detected conditions or events. System Automation for OS/390 provides automation for OS/390 applications, OS/390 components, and remote systems that run OS/390. System Automation for OS/390 also provides tools that can be used to develop additional automation.

automation control file (ACF). In System Automation for OS/390, a file that contains system-level automation policy information. There is one master automation control file for each NetView system on which System Automation for OS/390 is installed. Additional policy information and all resource status information is contained in the *OIB* (operational information base). The System Automation for OS/390 customization dialogs must be used to build the automation control files. They must not be edited manually.

automation flags. In System Automation for OS/390, the automation policy settings that determine the operator functions that are automated for a resource and the times during which automation is active. When System Automation for OS/390 is running, automation is controlled by automation flag policy settings and override settings (if any) entered by the operator. Automation flags are set using the customization dialogs.

Automation NetView. In System Automation for OS/390 the NetView that performs routine operator tasks with command procedures or uses other ways of automating system and network management, issuing automatic responses to messages and management services units.

automation operator. Automation operators are NetView autotasks that are assigned to perform specific automation functions. See also *automated functions*.

automation policy. The policy information governing automation for individual systems. This includes automation for applications, OS/390 subsystems, OS/390 data sets, and OS/390 components.

automation policy settings. The automation policy information contained in the automation control file. This information is entered using the customization dialogs. You can display or modify these settings using the customization dialogs.

automation procedure. A sequence of commands, packaged as a NetView command list or a command processor written in a high-level language. An automation procedure performs automation functions and runs under NetView.

automation status file. In System Automation for OS/390, a file containing status information for each automated subsystem, component or data set. This information is used by System Automation for OS/390 automation when taking action or when determining what action to take. In Release 2 and above of AOC/MVS, status information is also maintained in the operational information base.

automation table. See *NetView automation table*.

autotask. A NetView automation task that receives messages and processes automation procedures. There are no logged-on users associated with autotasks. Each

autotask is an operating system task and runs concurrently with other NetView tasks. An autotask could be set up to handle JES2 messages that schedule automation procedures, and an automation statement could route such messages to the autotasks. Similar to *operator station task*. System Automation for OS/390 message monitor tasks and target control tasks are autotasks. Also called *automation operator*.

available. In VTAM programs, pertaining to a logical unit that is active, connected, enabled, and not at its session limit.

B

basic mode. A central processor mode that does not use logical partitioning. Contrast with *logically partitioned (LPAR) mode*.

beaconing. The repeated transmission of a frame or messages (beacon) by a console or workstation upon detection of a line break or outage.

BookManager. An IBM product that lets users view softcopy documents on their workstations.

C

central processor (CP). The part of the computer that contains the sequencing and processing facilities for instruction execution, initial program load (IPL), and other machine operations.

central processor complex (CPC). A physical collection of hardware that consists of central storage, one or more central processors, timers, and channels.

central site. In a distributed data processing network, the central site is usually defined as the focal point for alerts, application design, and remote system management tasks such as problem management.

CFR/CFS and ISC/ISR. I/O operations can display and return data about integrated system channels (ISC) connected to a coupling facility and coupling facility receiver (CFR) channels and coupling facility sender (CFS) channels.

channel. A path along which signals can be sent; for example, data channel, output channel. See also *link*.

channel path identifier. A system-unique value assigned to each channel path.

CHPID. In System Automation for OS/390, channel path ID; the address of a channel.

CHPID port. A label that describes the system name, logical partitions, and channel paths.

channel-attached. (1) Attached directly by I/O channels to a host processor (for example, a

channel-attached device). (2) Attached to a controlling unit by cables, rather than by telecommunication lines. Contrast with *link-attached*. Synonymous with *local*.

CI. Console integration.

CICS/VS. Customer Information Control System for Virtual Storage.

CLIST. Command list.

clone. A set of definitions for application instances which are derived from a basic application definition by substituting a number of different system-specific values into the basic definition.

clone ID. A generic means of handling system-specific values such as the MVS SYSCONE or the VTAM subarea number. Clone IDs can be substituted into application definitions and commands to customize a basic application definition for the system that it is to be instantiated on.

CNC. A channel path that transfers data between a host system image and an ESCON control unit. It can be point-to-point or switchable.

command. A request for the performance of an operation or the execution of a particular program.

command facility. The component of NetView that is a base for command processors that can monitor, control, automate, and improve the operation of a network. The successor to NCCF.

command list (CLIST). (1) A list of commands and statements, written in the NetView command list language or the REXX language, designed to perform a specific function for the user. In its simplest form, a command list is a list of commands. More complex command lists incorporate variable substitution and conditional logic, making the command list more like a conventional program. Command lists are typically interpreted rather than being compiled. (2) In System Automation for OS/390, REXX command lists that can be used for automation procedures.

command procedure. In NetView, either a command list or a command processor.

command processor. A module designed to perform a specific function. Command processors, which can be written in assembler or a high-level language (HLL), are issued as commands.

Command Tree/2. An OS/2-based program that helps you build commands on an OS/2 window, then routes the commands to the destination you specify (such as a 3270 session, a file, a command line, or an application program). It provides the capability for operators to build commands and route them to a specified destination.

common commands. The System Automation for OS/390 subset of the CPC operations management commands.

common routine. One of several System Automation for OS/390 programs that perform frequently used automation functions. Common routines can be used to create new automation procedures.

Common User Access (CUA) architecture. Guidelines for the dialog between a human and a workstation or terminal.

communication controller. A type of communication control unit whose operations are controlled by one or more programs stored and executed in the unit or by a program executed in a processor to which the controller is connected. It manages the details of line control and the routing of data through a network.

communication line. Deprecated term for *telecommunication line*.

communications path. A set of communications facilities that System Automation for OS/390 uses to connect a focal-point system to a target system. There are two types: a NetView connection and a workstation.

communications task. A System Automation for OS/390 task responsible for all communications with a number of workstations. Communications tasks receive commands from target control tasks and send inbound messages to the message monitoring task. There can be many communications tasks. Communications tasks are defined using the configuration dialogs.

configuration dialogs. A user interface for entering the information that defines the System Automation for OS/390 configuration. In System Automation for OS/390 the configuration dialogs are an ISPF application.

connectivity view. In System Automation for OS/390, a display that uses graphic images for I/O devices and lines to show how they are connected.

console automation. The process of having NetView facilities provide the console input usually handled by the operator.

console connection. In System Automation for OS/390, the 3270 or ASCII (serial) connection between a PS/2 computer and a target system. Through this connection, the workstation appears (to the target system) to be a console.

console integration (CI). A hardware facility which if supported by an operating system, allows operating system messages to be transferred through an internal hardware interface for display on a system console. Conversely, it allows operating system commands

entered at a system console to be transferred through an internal hardware interface to the operating system for processing.

consoles. Workstations and 3270-type devices that manage your enterprise.

Control units. Hardware units that control I/O operations for one or more devices. You can view information about control units through I/O operations, and can start or stop data going to them by blocking and unblocking ports.

controller. A unit that controls I/O operations for one or more devices.

couple data set. A data set that is created through the XCF couple data set format utility and, depending on its designated type, is shared by some or all of the OS/390 systems in a sysplex. See also *sysplex couple data set* and *XCF couple data set*.

coupling facility. The hardware element that provides high-speed caching, list processing, and locking functions in a sysplex.

CP. Central processor.

CPC. Central processor complex.

CPC operations management commands. A set of commands and responses for controlling the operation of System/390 CPCs.

CPC subset. All or part of a CPC. It contains the minimum *resource* to support a single control program.

CPCB. Command processor control block; an I/O operations internal control block that contains information about the command being processed.

CPU. Central processing unit. Deprecated term for *processor*.

cross-system coupling facility (XCF). XCF is a component of OS/390 that provides functions to support cooperation between authorized programs running within a sysplex.

CTC. The channel-to-channel (CTC) channel can communicate with a CTC on another host for intersystem communication.

Customer Information Control System (CICS). A general-purpose transactional program that controls online communication between terminal users and a database for a large number of end users on a real-time basis.

customization dialogs. The customization dialogs are an ISPF application. They are used to customize the enterprise policy, like, for example, the enterprise resources and the relationships between resources, or the automation policy for systems in the enterprise.

How to use these dialogs is described in *System Automation for OS/390 Customizing and Programming*.

CVC. A channel operating in converted (CVC) mode transfers data in blocks and a CBY channel path transfers data in bytes. Converted CVC or CBY channel paths can communicate with a parallel control unit. This resembles a point-to-point parallel path and dedicated connection, regardless whether it passes through a switch.

D

DASD. Direct access storage device.

data services task (DST). The NetView subtask that gathers, records, and manages data in a VSAM file or a network device that contains network management information.

data set. The major unit of data storage and retrieval, consisting of a collection of data in one of several prescribed arrangements and described by control information to which the system has access.

data set members. Members of partitioned data sets that are individually named elements of a larger file that can be retrieved by name.

DBCS. Double-byte character set.

DCAF. The distributed console access facility (DCAF) workstation is a non-host based backup console. You use it with LAN passthru for an OS/2 session with windows. DCAF also serves as a diagnostic tool and gives you information about communication links.

DCCF. Disabled console communication facility.

DCF. Document composition facility.

DELAY Report. An RMF report that shows the activity of each job in the system and the hardware and software resources that are delaying each job.

Devices. You can see information about all devices (such as printers, tape or disk drives, displays, or communications controllers) attached to a particular switch, and control paths and jobs to devices.

DEVR Report. An RMF report that presents information about the activity of I/O devices that are delaying jobs.

dialog. Interactive 3270 panels.

direct access storage device (DASD). A device in which the access time is effectively independent of the location of the data; for example, a disk.

disabled console communication facility (DCCF). An OS/390 component that provides limited-function console communication during system recovery situations.

display. (1) To present information for viewing, usually on the screen of a workstation or on a hard-copy device. (2) Deprecated term for *panel*.

Distributed Console Access Facility (DCAF). An IBM licensed program for monitoring or controlling the display and keyboard/mouse input of one PS/2 workstation from another, usually remote PS/2 workstation.

distribution manager. The component of the NetView program that enables the host system to use, send, and delete files and programs in a network of computers.

domain. (1) An access method and its application programs, communication controllers, connecting lines, modems, and attached workstations. (2) In SNA, a system services control point (SSCP) and the physical units (PUs), logical units (LUs), links, link stations, and associated resources that the SSCP can control by means of activation requests and deactivation requests.

double-byte character set (DBCS). A character set, such as Kanji, in which each character is represented by a 2-byte code.

DP enterprise. Data processing enterprise.

DSIPARM. This file is a collection of members of NetView's DSIPARM data set. It determines how automation is applied to resources.

DST. Data Services Task.

E

EBCDIC. Extended binary-coded decimal interchange code. A coded character set consisting of 8-bit coded characters.

ECB. Event control block. A control block used to represent the status of an event.

EMCS. Extended multiple console support.

enterprise. An organization, such as a business or a school, that uses data processing.

enterprise monitoring. Enterprise monitoring is used by System Automation for OS/390 to update the *NetView Graphic Monitor Facility (NGMF)* resource status information which is stored in the *Resource Object Data Manager (RODM)*. Resource status information is acquired by enterprise monitoring of the *Resource Measurement Facility (RMF) Monitor III* service information at user-defined intervals. System Automation for OS/390 stores this information in its

operational information base, where it is used to update the information presented to the operator in graphic displays.

entries. Resources, such as processors, entered on panels.

environment. Data processing enterprise.

error threshold. An automation policy setting that specifies when System Automation for OS/390 should stop trying to restart or recover an application, subsystem or component, or offload a data set.

ESA. Enterprise Systems Architecture.

eServer. Processor family group designator used by the System Automation for OS/390 customization dialogs to define a target hardware as member of the zSeries or 390-CMOS processor families.

event. (1) In NetView, a record indicating irregularities of operation in physical elements of a network. (2) An occurrence of significance to a task; for example, the completion of an asynchronous operation, such as an input/output operation. (3) Events are part of a trigger condition, in a way that if all events of a trigger condition have occurred, a *STARTUP* or *SHUTDOWN* of an application is performed.

exception condition. An occurrence on a system that is a deviation from normal operation. System Automation for OS/390 monitoring highlights exception conditions and allows an System Automation for OS/390 enterprise to be managed by exception.

extended recovery facility (XRF). A facility that minimizes the effect of failures in OS/390, VTAM, the host processor, or high availability applications during sessions between high availability applications and designated terminals. This facility provides an alternate subsystem to take over sessions from the failing subsystem.

F

fallback system. See *secondary system*.

field. A collection of bytes within a record that are logically related and are processed as a unit.

file manager commands. A set of System Automation for OS/390 commands that read data from or write data to the automation control file or the operational information base. These commands are useful in the development of automation that uses System Automation for OS/390 facilities.

focal point. In NetView, the focal-point domain is the central host domain. It is the central control point for any management services element containing control of the network management data.

focus host. A processor with the role in the context of a unified system image

focal—point system. (1) A system that can administer, manage, or control one or more target systems. There are a number of different focal—point systems associated with IBM automation products. (2) **System Automation for OS/390 automation focal—point system.** The System Automation for OS/390 automation focal—point system is a System Automation for OS/390 NetView system that collects status information from other System Automation for OS/390 NetViews within your enterprise. It is supported by System Automation for OS/390, which uses NetView NNT/OST sessions to forward information to it. (3) **System Automation for OS/390 customization focal—point system.** The System Automation for OS/390 customization focal point is the system on which System Automation for OS/390 is installed. The System Automation for OS/390 policy databases exist on this system and are built into automation control file fragments, RODM load function files, and processor control file on this system (if this is being done using System Automation for OS/390). (4) **System Automation for OS/390 workstation focal—point system.** The System Automation for OS/390 workstation focal point must be the same as the NGMF focal point system. System Automation for OS/390 code is installed on both the workstation and the NGMF focal—point system. The System Automation for OS/390 workstation focal—point system collects status information about systems, applications and volumes within your enterprise. It is supported by System Automation for OS/390. (5) **NGMF focal—point system.** The NGMF focal—point system is a NetView system with an attached workstation server and LAN which gathers information about the state of the network. This focal—point system uses RODM to store the data it collects in the GMFHS data model. The information stored in RODM can be accessed from any LAN-connected workstation with NetView Graphic Monitor Facility installed. (6) **NPDA focal—point system.** This is a NetView system which collects all the NPDA alerts that are generated within your enterprise. It is supported by NetView. If you have System Automation for OS/390 installed the NPDA focal—point system must be the same as your NGMF focal—point system. The NPDA focal—point system is also known as the *alert focal—point system*. (7) **Status focal—point system.** In NetView, the system to which STATMON, VTAM and NLDM send status information on network resources. If you have a GMFHS focal point, it must be on the same system as the Status focal point. (8) **System Automation for OS/390 focal—point system.** This is a NetView system that has System Automation for OS/390 host code installed, and network connections to a number of System Automation for OS/390 workstations. The System Automation for OS/390 focal—point system receives messages from the systems and operator consoles of the machines it controls. It provides full systems and

operations console function for its target systems. It can be used to IPL these systems. Note that some restrictions apply to the Hardware Management Console for an S/390 microprocessor cluster. (9) **Hardware Management Console.** Although not listed as a focal point, the Hardware Management Console acts as a focal point for the console functions of an S/390 microprocessor cluster. Unlike all the other focal points in this definition, the Hardware Management Console runs on a LAN-connected workstation,

frame. For a System/390 microprocessor cluster, a frame contains one or two central processor complexes (CPCs), support elements, and AC power distribution.

full-screen mode. In NetView, a form of panel presentation that makes it possible to display the contents of an entire workstation screen at once. Full-screen mode can be used for fill-in-the-blanks prompting. Contrast with *line mode*.

G

gateway session. An NetView-NetView Task session with another system in which the System Automation for OS/390 outbound gateway operator logs onto the other NetView session without human operator intervention. Each end of a gateway session has both an inbound and outbound gateway operator.

generic alert. Encoded alert information that uses code points (defined by IBM and possibly customized by users or application programs) stored at an alert receiver, such as NetView.

generic routines. In System Automation for OS/390, a set of self-contained automation routines that can be called from the NetView automation table, or from user-written automation procedures.

GMF. Graphic Monitor Facility. See *NetView Graphic Monitor Facility*.

GMFHS. Graphic Monitor Facility host subsystem.

Graphical Monitor Facility (GMF). See *NetView Graphic Monitor Facility*.

graphical user interface (GUI). A computer interface that allows an ISPF application to be displayed at an OS/2 or Microsoft Windows workstation using the native display services of that workstation.

graphic windows. Windows are areas of a screen usually smaller than the entire glass surface and can be highly graphic with a wide range of fonts, colors, and sophisticated graphics. You can use either a mouse or a keyboard to select or enter choices. A scroll bar and click of a mouse let you make selections or go to other windows.

System Automation for OS/390 graphical windows run on a personal computer workstation under the OS/2 operating system.

graphic workstation. The graphic workstation is the primary way to dynamically monitor System Automation for OS/390 systems. From the windows, you see messages, monitor status, view trends, and react to changes before they cause problems for end users. You can use multiple windows to monitor multiple views of the system.

group. A collection of target systems defined through configuration dialogs. An installation might set up a group to refer to a physical site or an organizational or application entity.

Group entry. A construct, created with the customization dialogs, used to represent and contain policy for a group.

H

Hardware Management Console. A console used by the operator to monitor and control a System/390 microprocessor cluster.

Hardware Management Console Application (HWMCA). A direct-manipulation object-oriented graphical user interface that provides single point of control and single system image for hardware elements. HWMCA provides customer grouping support, aggregated and real-time system status using colors, consolidated hardware messages support, consolidated operating system messages support, consolidated service support, and hardware commands targeted at a single system, multiple systems, or a customer group of systems.

heartbeat. In System Automation for OS/390, a function which monitors the validity of the status forwarding path between remote systems and the NGMF focal point, and monitors the availability of remote OS/390 systems, to ensure that status information displayed on the System Automation for OS/390 workstation is current.

help panel. An online panel that tells you how to use a command or another aspect of a product.

hierarchy. In the NetView program, the resource types, display types, and data types that make up the organization, or levels, in a network.

high-level language (HLL). A programming language that does not reflect the structure of any particular computer or operating system. For the NetView program, the high-level languages are PL/I and C.

HLL. High-level language.

host system. In a coupled system or distributed system environment, the system on which the facilities for centralized automation run. System Automation for OS/390 publications refer to target systems or focal-point systems instead of hosts.

host (primary processor). The processor at which you enter a command (also known as the *issuing processor*).

HWMCA. Hardware Management Console Application. Application for the graphic hardware management console that monitors and controls a central processor complex. It is attached to a target processor (a system 390 microprocessor cluster) as a dedicated system console. This microprocessor uses OCF to process commands.

I

images. A grouping of processors and I/O devices that you define. You can define a single-image mode which allows a multiprocessor system to function as one central processor image.

IMS/VS. Information Management System/Virtual Storage.

inbound. In System Automation for OS/390, messages sent to the focal-point system from the PC or target system.

inbound gateway operator. The automation operator that receives incoming messages, commands, and responses from the outbound gateway operator at the sending system. The inbound gateway operator handles communications with other systems using a gateway session.

Information Management System/Virtual Storage (IMS/VS). A database/data communication (DB/DC) system that can manage complex databases and networks. Synonymous with IMS.

INGEIO PROC. The I/O operations default procedure name; part of the SYS1.PROCLIB.

initial program load (IPL). (1) The initialization procedure that causes an operating system to commence operation. (2) The process by which a configuration image is loaded into storage at the beginning of a workday or after a system malfunction. (3) The process of loading system programs and preparing a system to run jobs.

initialize automation. System Automation for OS/390-provided automation that issues the correct OS/390 start command for each subsystem when System Automation for OS/390 is initialized. The automation ensures that subsystems are started in the order specified in the automation control file and that prerequisite applications are functional.

input/output support processor (IOSP). The hardware unit that provides I/O support functions for the primary support processor and maintenance support functions for the processor controller.

Interactive System Productivity Facility (ISPF). An IBM licensed program that serves as a full-screen editor and dialog manager. Used for writing application programs, it provides a means of generating standard screen panels and interactive dialogs between the application programmer and the terminal user.

interested operator list. The list of operators who are to receive messages from a specific target system.

internal token. A *logical token* (LTOK); name by which the I/O resource or object is known; stored in IODF.

Inter-System Control Facility (ISCF). A program offering that provides remote operations support for 3090, 4381, and 308x processors. ISCF is a predecessor to System Automation for OS/390. It runs as a command processor on the NetView program and works in conjunction with the ISCF/PC program.

Inter-System Control Facility/PC (ISCF/PC). A program offering that runs as an application on an IBM personal computer and works in conjunction with ISCF.

IOCDs. I/O configuration data set. The data set that describes the I/O configuration.

I/O Ops. See *I/O operations*.

I/O resource exception monitoring. I/O resource exception monitoring is a significant System Automation for OS/390 enhancement to the functions of enterprise monitoring. I/O resource exception monitoring dynamically notifies operations personnel when I/O resources fail or become inaccessible. System Automation for OS/390 reports I/O resource exceptions through the enterprise monitoring mechanisms, including NGMF-based graphic displays. If a change in the operational status of an I/O resource is detected by one System Automation for OS/390 system, the visual presentation and associated textual data of that resource is automatically updated for all System Automation for OS/390 focal—point systems. I/O resource exception monitoring does not require definition of the I/O resources to System Automation for OS/390. System Automation for OS/390 dynamically discovers those resources.

IOSP. Input/Output Support Processor.

I/O operations. The part of System Automation for OS/390 that provides you with a single point of logical control for managing connectivity in your active I/O configurations. I/O operations takes an active role in detecting unusual conditions and lets you view and change paths between a processor and an I/O device, using dynamic switching (the ESCON director).

I/O resource number. Combination of channel path identifier (CHPID), device number, etc. See internal token.

IPL. Initial program load.

ISA. Industry Standard Architecture.

ISCF. Inter-System Control Facility.

ISCF/PC. Inter-System Control Facility/Personal Computer.

ISPF. Interactive System Productivity Facility.

ISPF console. From this 3270-type console you are logged onto ISPF to use the runtime panels for I/O operations and System Automation for OS/390 customization panels.

issuing host. See *primary host*; the base program at which you enter a command for processing.

J

JCL. Job control language.

JES. Job entry subsystem.

job. (1) A set of data that completely defines a unit of work for a computer. A job usually includes all necessary computer programs, linkages, files, and instructions to the operating system. (2) An address space.

job control language (JCL). A problem-oriented language designed to express statements in a job that are used to identify the job or describe its requirements to an operating system.

job entry subsystem (JES). A facility for spooling, job queuing, and managing I/O. In System Automation for OS/390 publications, JES refers to JES2 or JES3, unless distinguished as being either one or the other.

K

Kanji. An ideographic character set used in Japanese. See also *double-byte character set*.

L

LAN. Local area network.

line mode. A form of screen presentation in which the information is presented a line at a time in the message area of the terminal screen. Contrast with *full-screen mode*.

link. (1) In SNA, the combination of the link connection and the link stations joining network nodes; for example, a System/370 channel and its associated

protocols, a serial-by-bit connection under the control of synchronous data link control (SDLC). (2) In System Automation for OS/390, link connection is the physical medium of transmission.

link-attached. Describes devices that are physically connected by a telecommunication line. Contrast with *channel-attached*.

Linux for zSeries and S/390. UNIX-like open source operating system conceived by Linus Torvalds and developed across the internet.

local. Pertaining to a device accessed directly without use of a telecommunication line. Synonymous with *channel-attached*.

local area network (LAN). (1) A network in which a set of devices is connected for communication. They can be connected to a larger network. See also *token ring*. (2) A network in which communications are limited to a moderately sized geographic area such as a single office building, warehouse, or campus, and which do not generally extend across public rights-of-way.

logical partition (LP). A subset of the processor hardware that is defined to support an operating system. See also *logically partitioned (LPAR) mode*.

logical switch number (LSN). Assigned with the switch parameter of the CHPID macro of the IOCP.

logical token (LTOK). Resource number of an object in the IODF.

logical unit (LU). In SNA, a port through which an end user accesses the SNA network and the functions provided by system services control points (SSCPs). An LU can support at least two sessions — one with an SSCP and one with another LU — and may be capable of supporting many sessions with other LUs. See also *physical unit (PU)* and *system services control point (SSCP)*.

logical unit (LU) 6.2. A type of logical unit that supports general communications between programs in a distributed processing environment. LU 6.2 is characterized by (a) a peer relationship between session partners, (b) efficient use of a session for multiple transactions, (c) comprehensive end-to-end error processing, and (d) a generic application program interface (API) consisting of structured verbs that are mapped into a product implementation. Synonym for advanced program-to-program communications (APPC).

logically partitioned (LPAR) mode. A central processor mode that enables an operator to allocate system processor hardware resources among several logical partitions. Contrast with *basic mode*.

LOGR. The sysplex logger.

LP. Logical partition.

LPAR. Logically partitioned (mode).

LU. Logical unit.

LU-LU session. In SNA, a session between two logical units (LUs) in an SNA network. It provides communication between two end users, or between an end user and an LU services component.

LU 6.2. Logical unit 6.2.

LU 6.2 session. A session initiated by VTAM on behalf of an LU 6.2 application program, or a session initiated by a remote LU in which the application program specifies that VTAM is to control the session by using the APPCCMD macro.

M

MCA. Micro Channel architecture.

MCS. Multiple console support.

member. A specific function (one or more modules/routines) of a multisystem application that is defined to XCF and assigned to a group by the multisystem application. A member resides on one system in the sysplex and can use XCF services to communicate (send and receive data) with other members of the same group.

message class. A number that System Automation for OS/390 associates with a message to control routing of the message. During automated operations, the classes associated with each message issued by System Automation for OS/390 are compared to the classes assigned to each notification operator. Any operator with a class matching one of the message's classes receives the message.

message forwarding. The System Automation for OS/390 process of sending messages generated at a System Automation for OS/390 target system to the System Automation for OS/390 focal—point system.

message group. Several messages that are displayed together as a unit.

message monitor task. A task that starts and is associated with a number of communications tasks. Message monitor tasks receive inbound messages from a communications task, determine the originating target system, and route the messages to the appropriate target control tasks.

message processing facility (MPF). An OS/390 table that screens all messages sent to the OS/390 console. The MPF compares these messages with a customer-defined list of messages on which to automate, suppress from the OS/390 console display, or

both, and marks messages to automate or suppress. Messages are then broadcast on the subsystem interface (SSI).

message suppression. The ability to restrict the amount of message traffic displayed on the OS/390 console.

Micro Channel architecture. The rules that define how subsystems and adapters use the Micro Channel bus in a computer. The architecture defines the services that each subsystem can or must provide.

microprocessor. A processor implemented on one or a small number of chips.

migration. Installation of a new version or release of a program to replace an earlier version or release.

MP. Multiprocessor.

MPF. Message processing facility.

Multiple Virtual Storage (MVS). An IBM licensed program. MVS, which is the predecessor of OS/390, is an operating system that controls the running of programs on a System/390 or System/370 processor. MVS includes an appropriate level of the Data Facility Product (DFP) and Multiple Virtual Storage/Enterprise Systems Architecture System Product Version 5 (MVS/ESA SP5).

multiprocessor (MP). A CPC that can be physically partitioned to form two operating processor complexes.

multisystem application. An application program that has various functions distributed across OS/390 images in a multisystem environment.

multisystem environment. An environment in which two or more OS/390 images reside in one or more processors, and programs on one image can communicate with programs on the other images.

MVS. Multiple Virtual Storage, predecessor of OS/390.

MVS image. A single occurrence of the MVS/ESA operating system that has the ability to process work.

MVS/JES2. Multiple Virtual Storage/Job Entry System 2. An OS/390 subsystem that receives jobs into the system, converts them to internal format, selects them for execution, processes their output, and purges them from the system. In an installation with more than one processor, each JES2 processor independently controls its job input, scheduling, and output processing.

MVS/ESA. Multiple Virtual Storage/Enterprise Systems Architecture.

MVS/ESA SP. Multiple Virtual Storage/Enterprise Systems Architecture System Product.

MVS/ESA SP4. Multiple Virtual Storage/ Enterprise Systems Architecture System Product Version 4.

MVS/XA. Multiple Virtual Storage for Extended Architecture.

N

NAU. (1) Network accessible unit. (2) Network addressable unit.

NCCF. Network Communications Control Facility.

NCP. (1) Network Control Program (IBM licensed program). Its full name is Advanced Communications Function for the Network Control Program. Synonymous with *ACF/NCP*. (2) Network control program (general term).

NetView. An IBM licensed program used to monitor a network, manage it, and diagnose network problems. NetView consists of a command facility that includes a presentation service, command processors, automation based on command lists, and a transaction processing structure on which the session monitor, hardware monitor, and terminal access facility (TAF) network management applications are built.

network accessible unit (NAU). A logical unit (LU), physical unit (PU), control point (CP), or system services control point (SSCP). It is the origin or the destination of information transmitted by the path control network. Synonymous with *network addressable unit*.

network addressable unit (NAU). Synonym for *network accessible unit*.

NetView automation procedures. A sequence of commands, packaged as a NetView command list or a command processor written in a high-level language. An automation procedure performs automation functions and runs under the NetView program.

NetView automation table. A table against which the NetView program compares incoming messages. A match with an entry triggers the specified response. System Automation for OS/390 entries in the NetView automation table trigger a System Automation for OS/390 response to target system conditions.

NetView Command list language. An interpretive language unique to NetView that is used to write command lists.

NetView (NCCF) console. A 3270-type console for NetView commands and runtime panels for system operations and processor operations.

NetView Graphic Monitor Facility (NGMF). A function of the NetView program that provides a graphic, topological presentation of a network that is controlled by the NetView program. It provides the

operator different views of a network, multiple levels of graphical detail, and dynamic resource status of the network. This function consists of a series of graphic windows that allows you to manage the network interactively.

NetView hardware monitor. The component of NetView that helps identify network problems, such as hardware, software, and microcode, from a central control point using interactive display techniques. Formerly called *network problem determination application*.

NetView log. The log in which NetView records events pertaining to NetView and System Automation for OS/390 activities.

NetView message table. See *NetView automation table*.

NetView-NetView task (NNT). The task under which a cross-domain NetView operator session runs. Each NetView program must have a NetView-NetView task to establish one NNT session. See *operator station task*.

NetView paths via logical unit (LU 6.2). A type of network-accessible port (VTAM connection) that enables end users to gain access to SNA network resources and communicate with each other. LU 6.2 permits communication between processor operations and the workstation.

NetView—NetView Task session. A session between two NetView programs that runs under a NetView-NetView Task. In System Automation for OS/390, Netview-NetView Task sessions are used for communication between focal point and remote systems.

network. (1) An interconnected group of nodes. (2) In data processing, a user application network. See *SNA network*.

Network Communications Control Facility (NCCF). The operations control facility for the network. NCCF consists of a presentation service, command processors, automation based on command lists, and a transaction processing structure on which the network management applications NLDM and NPDA are built. NCCF is a precursor to the NetView command facility.

Network Control Program (NCP). An IBM licensed program that provides communication controller support for single-domain, multiple-domain, and interconnected network capability. Its full name is Advanced Communications Function for the Network Control Program.

Networking NetView. In System Automation for OS/390 the NetView that performs network management functions, such as managing the configuration of a network. In System Automation for OS/390 it is common to also route alerts to the Networking NetView.

Network Problem Determination Application (NPDA). An NCCF application that helps you identify network problems, such as hardware, software, and microcode, from a central control point using interactive display methods. The alert manager for the network. The precursor of the NetView hardware monitor.

NGMF. NetView Graphic Monitor Facility.

NGMF focal—point system. See *focal—point system*.

NIP. Nucleus initialization program.

NNT. NetView-NetView task.

notification message. A System Automation for OS/390 message sent to a human notification operator to provide information about significant automation actions. Notification messages are defined using the customization dialogs.

notification operator. A NetView console operator who is authorized to receive System Automation for OS/390 notification messages. Authorization is made through the customization dialogs.

NPDA. Network Problem Determination Application.

NPDA focal—point system. See *focal—point system*.

NTRI. NCP/token-ring interconnection.

nucleus initialization program (NIP). The program that initializes the resident control program; it allows the operator to request last-minute changes to certain options specified during system generation.

O

objective value. An average Workflow or Using value that System Automation for OS/390 can calculate for applications from past service data. System Automation for OS/390 uses the objective value to calculate warning and alert thresholds when none are explicitly defined.

OCA. In System Automation for OS/390, operator console A, the active operator console for a target system. Contrast with *OCB*.

OCB. In System Automation for OS/390, operator console B, the backup operator console for a target system. Contrast with *OCA*.

OCF. Operations command facility.

OCF-based processor. A central processor complex that uses an operations command facility for interacting with human operators or external programs to perform operations management functions on the CPC. Contrast with *screen-oriented processor*.

OIB. Operational Information Base, a depository of RODM, System Automation for OS/390 policy, and System Automation for OS/390 data model. Each System Automation for OS/390 OS/390 system with has its own OIB. The OIB on the focal—point system maintains the status information.

Policy is defined in the System Automation for OS/390 customization panels, stored and then loaded by a RODM load function file into OIB. Subsequent changes to customization are temporary until RODM again loads them into the OIB.

OPC/A. Operations Planning and Control/Advanced.

OPC/ESA. Operations Planning and Control/Enterprise Systems Architecture.

operating system (OS). Software that controls the execution of programs and that may provide services such as resource allocation, scheduling, input/output control, and data management. Although operating systems are predominantly software, partial hardware implementations are possible. (T)

Operating System/2 Extended Services. See *OS/2*.

Operating System/2 WARP (OS/2 WARP). A software operating system for personal computers (workstations). OS/2 supports sophisticated business applications and gives you multiple simultaneous host sessions, DOS sessions, Windows sessions, and OS/2 sessions with a graphic interface that lets you select resources by clicking on an icon with a mouse.

operations. The real-time control of a hardware device or software function.

operational data base. See *OIB*.

operational information base. See *OIB*.

operations command facility (OCF). A facility of the central processor complex that accepts and processes operations management commands.

Operations Planning and Control/Advanced (OPC/A). A set of IBM licensed programs that automate, plan, and control batch workload. OPC/A analyzes system and workload status and submits jobs accordingly.

Operations Planning and Control/ESA (OPC/ESA). A set of IBM licensed programs that automate, plan, and control batch workload. OPC/ESA analyzes system and workload status and submits jobs accordingly. The successor to OPC/A.

operator. (1) A person who keeps a system running. (2) A person or program responsible for managing activities controlled by a given piece of software such as OS/390, the NetView program, or IMS. (3) A person

who operates a device. (4) In a language statement, the lexical entity that indicates the action to be performed on operands.

operator console. (1) A functional unit containing devices that are used for communications between a computer operator and a computer. (T) (2) A display console used for communication between the operator and the system, used primarily to specify information concerning application programs and I/O operations and to monitor system operation. (3) In SA OS/390, a console that displays output from and sends input to the operating system (z/OS, LINUX, VM, VSE, or TPF). Also called *operating system console*. In the System Automation for OS/390 operator commands and configuration dialogs, OC is used to designate a target system operator console.

operator station task (OST). The NetView task that establishes and maintains the online session with the network operator. There is one operator station task for each network operator who logs on to the NetView program.

operator view. A set of group, system, and resource definitions that are associated together for monitoring purposes. An operator view appears as a graphic display in the graphic interface showing the status of the defined groups, systems, and resources.

OperatorView entry. A construct, created with the customization dialogs, used to represent and contain policy for an operator view.

OS. Operating system.

OS/390 component. A part of OS/390 that performs a specific OS/390 function. In System Automation for OS/390, component refers to entities that are managed by System Automation for OS/390 automation.

OS/390 subsystem. Software products that augment the OS/390 operating system. JES and TSO/E are examples of OS/390 subsystems. System Automation for OS/390 includes automation for some OS/390 subsystems.

OS/390 system. An OS/390 image together with its associated hardware, which collectively are often referred to simply as a system, or OS/390 system.

OSA. I/O operations can display the open system adapter (OSA) channel logical definition, physical attachment, and status. You can configure an OSA channel on or off.

OST. Operator station task.

OS/2. The IBM Operating System/2 program.

OS/2 program. The IBM Operating System/2 program. System Automation for OS/390 uses the

intersystem communication and emulation services of the Communication Manager.

outbound. In System Automation for OS/390, messages or commands from the focal-point system to the PS/2 computer or target system.

outbound gateway operator. The automation operator that establishes connections to other systems. The outbound gateway operator handles communications with other systems through a gateway session. The automation operator sends messages, commands, and responses to the inbound gateway operator at the receiving system.

P

page. (1) The portion of a panel that is shown on a display surface at one time. (2) To transfer instructions, data, or both between real storage and external page or auxiliary storage.

panel. (1) A formatted display of information that appears on a terminal screen. Panels are full-screen 3270-type displays with a monospaced font, limited color and graphics. (2) By using System Automation for OS/390 panels you can see status, type commands on a command line using a keyboard, configure your system, and passthru to other consoles. See also *help panel*. (3) In computer graphics, a display image that defines the locations and characteristics of display fields on a display surface. Contrast with *screen*.

parallel channels. Parallel channels operate in either byte (BY) or block (BL) mode. You can change connectivity to a parallel channel operating in block mode.

parameter. (1) A variable that is given a constant value for a specified application and that may denote the application. (2) An item in a menu for which the user specifies a value or for which the system provides a value when the menu is interpreted. (3) Data passed to a program or procedure by a user or another program, namely as an operand in a language statement, as an item in a menu, or as a shared data structure.

partition. (1) A fixed-size division of storage. (2) In VSE, a division of the virtual address area that is available for program processing. (3) On an IBM Personal Computer fixed disk, one of four possible storage areas of variable size; one can be accessed by DOS, and each of the others may be assigned to another operating system.

partitionable CPC. A CPC that can be divided into 2 independent CPCs. See also *physical partition*, *single-image mode*, *MP*, *side*.

partitioned data set (PDS). A data set in direct access storage that is divided into partitions, called *members*, each of which can contain a program, part of a program, or data.

passive monitoring. In System Automation for OS/390, the receiving of unsolicited messages from OS/390 systems and their resources. These messages can prompt updates to resource status displays. See also *active monitoring*.

path. Communication link (either NetView or PS/2) between a processor and console.

PCE. Processor controller. Also known as the “support processor” or “service processor” in some processor families.

PDS. Partitioned data set.

Personal System/2 (PS/2) computer. A family of microcomputers manufactured by IBM Corporation.

physical partition. Part of a CPC that operates as a CPC in its own right, with its own copy of the operating system.

physical unit (PU). In SNA, the component that manages and monitors the resources (such as attached links and adjacent link stations) of a node, as requested by a system services control point (SSCP) through an SSCP-PU session. An SSCP activates a session with the physical unit to indirectly manage, through the PU, resources of the node such as attached links.

physically partitioned (PP) configuration. A mode of operation that allows a multiprocessor (MP) system to function as two or more independent CPCs having separate power, water, and maintenance boundaries. Contrast with *single-image (SI) configuration*.

POI. Program operator interface.

policy. The automation and monitoring specifications for an SA OS/390 enterprise. See *System Automation for OS/390 Defining Automation Policy*.

policy database. The database where the automation policy is recorded; also known as the OIB.

POR. Power-on reset.

port. (1) System hardware to which the I/O devices are attached. (2) On an ESCON switch, a port is an addressable connection. The switch routes data through the ports to the channel or control unit. Each port has a name that can be entered into a switch matrix, and you can use commands to change the switch configuration. (3) An access point (for example, a logical unit) for data entry or exit. (4) A functional unit of a node through which data can enter or leave a data network. (5) In data communication, that part of a data processor that is dedicated to a single data channel for the purpose of

receiving data from or transmitting data to one or more external, remote devices. (6) power-on reset (POR) (7) A function that re-initializes all the hardware in a CPC and loads the internal code that enables the CPC to load and run an operating system.

PP. Physically partitioned (configuration).

PPT. Primary POI task.

primary host. The base program at which you enter a command for processing.

primary POI task (PPT). The NetView subtask that processes all unsolicited messages received from the VTAM program operator interface (POI) and delivers them to the controlling operator or to the command processor. The PPT also processes the initial command specified to execute when NetView is initialized and timer request commands scheduled to execute under the PPT.

primary system. A system is a primary system for an application if the application is normally meant to be running there. System Automation for OS/390 starts the application on all the primary systems defined for it.

problem determination. The process of determining the source of a problem; for example, a program component, machine failure, telecommunication facilities, user or contractor-installed programs or equipment, environment failure such as a power loss, or user error.

processor controller. Hardware that provides support and diagnostic functions for the central processors.

processor operations. The part of System Automation for OS/390 that monitors and controls processor (hardware) operations. Processor operations provides a connection from a focal—point system to a target system. Through NetView on the focal —point system, processor operations automates operator and system consoles for monitoring and recovering target systems.

processor operations control file. Named by your system programmer, this file contains configuration and customization information. The programmer records the name of this control file in the processor operations file generation panel ISQDPG01.

processor operations workstation. This 3270-type display echos commands run by automation and relays commands from the focal—point system to the target processor, and messages from the target processor to the focal—point system. The display can also be used as operator consoles. The workstation attaches to a processor through the processor controller.

Processor Resource/Systems Manager (PR/SM). The feature that allows the processor to use several

operating system images simultaneously and provides logical partitioning capability. See also *LPAR*.

ProcOps. See *processor operations*.

program to program interface (PPI). A NetView function that allows user programs to send or receive data buffers from other user programs and to send alerts to the NetView hardware monitor from system and application programs.

protocol. In SNA, the meanings of, and the sequencing rules for, requests and responses used for managing the network, transferring data, and synchronizing the states of network components.

PR/SM. Processor Resource/Systems Manager.

PS/2 computer. In System Automation for OS/390, an IBM PS/2 computer that runs the OS/2 program and that contains a communication adapter. The PS/2 computer, which is connected to one or more target systems, contains the distributed feature code of System Automation for OS/390. A System Automation for OS/390 workstation may be either an IBM PS/2 computer or an IBM PS/55 computer, unless otherwise stated.

PS/2 LU name. In System Automation for OS/390, the focal-point SNA logical unit name of the workstation.

PS/2 name. In System Automation for OS/390, the logical name of the workstation.

PS/2 ports. On a PS/2 workstation, a port is a cable connector on a 3270 or ASCII logic card that attaches it to a target system. The port is associated with the screen handler for the PS/2 and identified by a port letter.

PU. Physical unit.

R

remote system. A system that receives resource status information from a System Automation for OS/390 focal—point system. A System Automation for OS/390 remote system is defined as part of the same System Automation for OS/390 enterprise as the System Automation for OS/390 focal—point system to which it is related.

requester. A requester is a workstation software, which enables users to log on to a domain, that is, to the server(s) belonging to this domain, and use the resources in this domain. After the log on to a domain, users can access the shared resources and use the processing capability of the server(s). Because the bigger part of shared resources is on the server(s), users can reduce hardware investment.

resource. (1) Any facility of the computing system or operating system required by a job or task, and

including main storage, input/output devices, the processing unit, data sets, and control or processing programs. (2) In NetView, any hardware or software that provides function to the network. (3) In System Automation for OS/390, any OS/390 application, OS/390 component, job, device, or target system capable of being monitored or automated through System Automation for OS/390.

Resource Access Control Facility (RACF). A program that can provide data security for all your resources. RACF protects data from accidental or deliberate unauthorized disclosure, modification, or destruction.

resource group. A physically partitionable portion of a processor. Also known as a *side*.

Resource Monitoring Facility (RMF) Monitor III. A program that measures and reports on the availability and activity of system hardware and software resources, such as processors, devices, storage, and address spaces. RMF can issue online reports about system performance problems as they occur.

Resource Object Data Manager (RODM). A data cache manager designed to support process control and automation applications. RODM provides an in-memory data cache for maintaining real-time data in an address space that is accessible by multiple applications. RODM also allows an application to query an object and receive a rapid response and act on it.

resource token. A unique internal identifier of an ESCON resource or resource number of the object in the IODF.

restart automation. System Automation for OS/390-provided automation that monitors subsystems to ensure that they are running. If a subsystem fails, System Automation for OS/390 attempts to restart it according to the policy in the automation control file.

Restructured Extended Executor (REXX). An interpretive language used to write command lists.

return code. A code returned from a program used to influence the issuing of subsequent instructions.

REXX. Restructured Extended Executor.

REXX procedure. A command list written with the Restructured Extended Executor (REXX) which is an interpretive language.

RMF. Resource Measurement Facility.

RODM. Resource Object Data Manager.

S

SAF. Security Authorization Facility.

system. In System Automation for OS/390, the term system refers to a focal-point system (OS/390) or a target system (OS/390, VM, VSE, TPF, CF, or LINUX).

System Automation for OS/390 automation focal—point system. See *focal—point system*.

System Automation for OS/390 customization dialogs. An ISPF application through which the System Automation for OS/390 policy administrator defines policy for individual OS/390 systems and builds automation control data and RODM load function files.

System Automation for OS/390 customization focal—point system. See *focal—point system*.

System Automation for OS/390 data model. The set of objects, classes and entity relationships necessary to support the function of System Automation for OS/390 and the NetView automation platform.

System Automation for OS/390 enterprise. The group of systems and resources defined in the customization dialogs under one enterprise name. A System Automation for OS/390 enterprise consists of connected OS/390 systems running System Automation for OS/390.

System Automation for OS/390 focal—point system. See *focal—point system*.

graphic interface. A System Automation for OS/390 operator interface that uses OS/2 features. It lets an operator monitor the service level of an enterprise's resources, or temporarily override System Automation for OS/390 policy settings.

System Automation for OS/390 policy. The description of the systems and resources that make up an System Automation for OS/390 enterprise, together with their monitoring and automation definitions.

System Automation for OS/390 policy administrator. The member of the operations staff who is responsible for defining System Automation for OS/390 policy.

System Automation for OS/390 satellite. If you are running two NetViews on an OS/390 system to split the automation and networking functions of NetView, it is common to route alerts to the Networking NetView. For System Automation for OS/390 to process alerts properly on the Networking NetView, you must install a subset of System Automation for OS/390 code, called an *System Automation for OS/390 satellite* on the Networking NetView.

SCA. In System Automation for OS/390, system console A, the active system console for a target hardware. Contrast with SCB.

SCB. In System Automation for OS/390, system console B, the backup system console for a target hardware. Contrast with *SCA*.

screen. Deprecated term for display panel.

screen-based processor. See *screen-oriented processor*.

screen handler. In System Automation for OS/390, software that interprets all data to and from a full-screen image of a target system. The interpretation depends on the format of the data on the full-screen image. Every processor and operating system has its own format for the full-screen image. A screen handler controls one PS/2 connection to a target system.

screen-oriented processor. A central processor complex that interacts with human operators through line-mode display consoles. For System/390 and System/370 processors, the display consoles use either an IBM 3270 data stream or an ASCII data stream. Contrast with *OCF-based processor*.

SDF. Status display facility.

SDLC. Synchronous data link control.

SDSF. System Display and Search Facility.

secondary system. A system is a secondary system for an application if it is defined to automation on that system, but the application is not normally meant to be running there. Secondary systems are systems to which an application can be moved in the event that one or more of its primary systems are unavailable. System Automation for OS/390 does not start the application on its secondary systems.

server. A server is a workstation, that shares resources, which include directories, printers, serial devices, and computing powers.

service period. Service periods allow the users to schedule the availability of applications. A service period is a set of time intervals (service windows), during which an application should be active.

service threshold. A System Automation for OS/390 policy setting that determines when to notify the operator of deteriorating service for a resource. See also *alert thresholdwarning threshold*.

service language command (SLC). The line-oriented command language of processor controllers or service processors.

service processor (SVP). The name given to a processor controller on smaller System/370 processors.

session. In SNA, a logical connection between two network addressable units (NAUs) that can be activated, tailored to provide various protocols, and deactivated, as requested. Each session is uniquely identified in a transmission header by a pair of

network addresses identifying the origin and destination NAUs of any transmissions exchanged during the session.

session monitor. The component of the NetView program that collects and correlates session-related data and provides online access to this information. The successor to NLDM.

shutdown automation. System Automation for OS/390-provided automation that manages the shutdown process for subsystems by issuing shutdown commands and responding to prompts for additional information.

side. A part of a partitionable CPC that can run as a physical partition and is typically referred to as the A-side or the B-side.

single image. A processor system capable of being physically partitioned that has not been physically partitioned. Single-image systems can be target hardware processors.

single-image (SI) mode. A mode of operation for a multiprocessor (MP) system that allows it to function as one CPC. By definition, a uniprocessor (UP) operates in single-image mode. Contrast with *physically partitioned (PP) configuration*.

SLC. Service language command.

SMP/E. System Modification Program Extended.

SNA. Systems Network Architecture.

SNA network. In SNA, the part of a user-application network that conforms to the formats and protocols of systems network architecture. It enables reliable transfer of data among end users and provides protocols for controlling the resources of various network configurations. The SNA network consists of network addressable units (NAUs), boundary function components, and the path control network.

SNMP. Simple Network Management Protocol (a TCP/IP protocol). A protocol that allows network management by elements, such as gateways, routers, and hosts. This protocol provides a means of communication between network elements regarding network resources.

solicited message. A System Automation for OS/390 message that directly responds to a command. Contrast with *unsolicited message*.

SRPI. Server-Requester Programming Interface.

SSCP. System services control point.

SSI. Subsystem interface.

start automation. System Automation for OS/390-provided automation that manages and

completes the startup process for subsystems. During this process, System Automation for OS/390 replies to prompts for additional information, ensures that the startup process completes within specified time limits, notifies the operator of problems, if necessary, and brings subsystems to an UP (or ready) state.

startup. The point in time at which a subsystem or application is started.

status. The measure of the condition or availability of the resource.

status focal—point system. See *focal—point system*.

status display facility (SDF). The system operations part of System Automation for OS/390 that displays status of resources such as applications, gateways, and write-to-operator messages (WTORs) on dynamic color-coded panels. SDF shows spool usage problems and resource data from multiple systems.

steady state automation. The routine monitoring, both for presence and performance, of subsystems, applications, volumes and systems. Steady state automation may respond to messages, performance exceptions and discrepancies between its model of the system and reality.

structure. A construct used by OS/390 to map and manage storage on a coupling facility. See cache structure, list structure, and lock structure.

subgroup. A named set of systems. A subgroup is part of a System Automation for OS/390 enterprise definition and is used for monitoring purposes.

SubGroup entry. A construct, created with the customization dialogs, used to represent and contain policy for a subgroup.

subsystem. (1) A secondary or subordinate system, usually capable of operating independent of, or asynchronously with, a controlling system. (2) In System Automation for OS/390, an OS/390 application or subsystem defined to System Automation for OS/390.

subsystem interface. The OS/390 interface over which all messages sent to the OS/390 console are broadcast.

support element. A hardware unit that provides communications, monitoring, and diagnostic functions to a central processor complex (CPC).

support processor. Another name given to a processor controller on smaller System/370 processors; see *service processor*.

SVP. Service processor.

switches. ESCON directors are electronic units with ports that dynamically switch to route data to I/O

devices. The switches are controlled by I/O operations commands that you enter on a workstation.

switch identifier. The switch device number (swchdevn), the logical switch number (LSN) and the switch name

symbolic destination name (SDN). Used locally at the workstation to relate to the VTAM application name.

synchronous data link control (SDLC). A discipline for managing synchronous, code-transparent, serial-by-bit information transfer over a link connection. Transmission exchanges may be duplex or half-duplex over switched or non-switched links. The configuration of the link connection may be point-to-point, multi-point, or loop. SDLC conforms to subsets of the Advanced Data Communication Control Procedures (ADCCP) of the American National Standards Institute and High-Level Data Link Control (HDLC) of the International Standards Organization.

SYSINFO Report. An RMF report that presents an overview of the system, its workload, and the total number of jobs using resources or delayed for resources.

SysOps. See *system operations*.

sysplex. A set of OS/390 systems communicating and cooperating with each other through certain multisystem hardware components (coupling devices and timers) and software services (couple data sets).

In a sysplex, OS/390 provides the coupling services that handle the messages, data, and status for the parts of a multisystem application that has its workload spread across two or more of the connected processors, sysplex timers, coupling facilities, and couple data sets (which contains policy and states for automation).

A parallel sysplex is a sysplex which includes a coupling facility.

sysplex application group. A sysplex application group is a grouping of applications that can run on any system in a sysplex.

sysplex couple data set. A couple data set that contains sysplex-wide data about systems, groups, and members that use XCF services. All OS/390 systems in a sysplex must have connectivity to the sysplex couple data set. See also *couple data set*.

Sysplex Timer. An IBM unit that synchronizes the time-of-day (TOD) clocks in multiple processors or processor sides. External Time Reference (ETR) is the OS/390 generic name for the IBM Sysplex Timer (9037).

system. In System Automation for OS/390, system means a focal—point system (OS/390) or a target system (OS/390, VM, VSE, TPF, CF, or SNMP).

System Automation for OS/390. The full name for SA OS/390.

system console. (1) A console, usually having a keyboard and a display screen, that is used by an operator to control and communicate with a system. (2) A logical device used for the operation and control of hardware functions (for example, IPL, alter/display, and reconfiguration). The system console can be assigned to any of the physical displays attached to a processor controller or support processor. (3) In System Automation for OS/390, the hardware system console for processor controllers or service processors of processors connected using System Automation for OS/390. In the System Automation for OS/390 operator commands and configuration dialogs, SC is used to designate the system console for a target hardware processor.

System Display and Search Facility (SDSF). An IBM licensed program that provides information about jobs, queues, and printers running under JES2 on a series of panels. Under System Automation for OS/390 you can select SDSF from a pull-down menu to see the resources' status, view the OS/390 system log, see WTOR messages, and see active jobs on the system.

System entry. A construct, created with the customization dialogs, used to represent and contain policy for a system.

System Modification Program/Extended (SMP/E). An IBM licensed program that facilitates the process of installing and servicing an OS/390 system.

system operations. The part of System Automation for OS/390 that monitors and controls system operations applications and subsystems such as NetView, SDSF, JES, RME, TSO, RODM, ACF/VTAM, CICS, IMS, and OPC.

system services control point (SSCP). In SNA, the focal point within an SNA network for managing the configuration, coordinating network operator and problem determination requests, and providing directory support and other session services for end users of the network. Multiple SSCPs, cooperating as peers, can divide the network into domains of control, with each SSCP having a hierarchical control relationship to the physical units and logical units within its domain.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through, and controlling the configuration and operation of, networks.

SystemView. An IBM structure applied to systems management applications to produce a unified and consistent set of applications to the systems management end user.

System/390 microprocessor cluster. A configuration that consists of central processor complexes (CPCs) and may have one or more integrated coupling facilities.

T

TAF. Terminal access facility.

target. A processor or system monitored and controlled by a focal—point system.

target control task. In System Automation for OS/390, target control tasks process commands and send data to target systems and workstations through communications tasks. A target control task (a NetView autotask) is assigned to a target system when the target system is initialized.

target hardware. In System Automation for OS/390, the physical hardware on which a target system runs. It can be a single-image or physically partitioned processor. Contrast with *target system*.

target system. (1) In a distributed system environment, a system that is monitored and controlled by the focal-point system. Multiple target systems can be controlled by a single focal-point system. (2) In System Automation for OS/390, a computer system attached to the focal-point system for monitoring and control. The definition of a target system includes how remote sessions are established, what hardware is used, and what operating system is used.

task. (1) A basic unit of work to be accomplished by a computer. (2) In the NetView environment, an operator station task (logged-on operator), automation operator (autotask), application task, or user task. A NetView task performs work in the NetView environment. All System Automation for OS/390 tasks are NetView tasks. See also *communications task*, *message monitor task*, and *target control task*.

telecommunication line. Any physical medium, such as a wire or microwave beam, that is used to transmit data.

terminal access facility (TAF). (1) A NetView function that allows you to log onto multiple applications either on your system or other systems. You can define TAF sessions in the System Automation for OS/390 customization panels so you don't have to set them up each time you want to use them. (2) In NetView, a facility that allows a network operator to control a number of subsystems. In a full-screen or operator control session, operators can control any combination of subsystems simultaneously.

terminal emulation. The capability of a microcomputer or personal computer to operate as if it were a particular type of terminal linked to a processing unit to access data.

threshold. A value that determines the point at which System Automation for OS/390 automation performs a predefined action. See *alert threshold*, *warning threshold*, and *error threshold*.

Time Sharing Option (TSO). An optional configuration of the operating system that provides conversational time sharing from remote stations. It is an interactive service on OS/390, MVS/ESA, and MVS/XA.

Time-Sharing Option/Extended (TSO/E). An option of OS/390 that provides conversational time-sharing from remote terminals. TSO/E allows a wide variety of users to perform many different kinds of tasks. It can handle short-running applications that use fewer sources as well as long-running applications that require large amounts of resources.

timers. A NetView command that issues a command or command processor (list of commands) at a specified time or time interval.

TME 10. Tivoli Management Environment.

TOD. Time of day.

token ring. A network with a ring topology that passes tokens from one attaching device to another; for example, the IBM Token-Ring Network product.

TP. Transaction program.

TPF. Transaction processing facility.

transaction processing facility (TPF). A high-availability, high-performance system, designed to support real-time, transaction-driven applications (such as an airline reservation system). The specialized architecture of TPF is intended to optimize system efficiency, reliability, and responsiveness for data communication and database processing.

TPF provides real-time inquiry and update to a large, centralized database, where message length is relatively short in both directions, and response time is generally less than three seconds. Formerly known as the Airline Control Program/Transaction Processing Facility (ACP/TPF).

transaction program. In the VTAM program, a program that performs services related to the processing of a transaction. One or more transaction programs may operate within a VTAM application program that is using the VTAM application program interface (API). In that situation, the transaction program would request services from the applications program using protocols defined by that application program. The application program, in turn, could request services from the VTAM program by issuing the APPCCMD macro instruction.

transitional automation. the actions involved in starting and stopping subsystems and applications

which have been defined to System Automation for OS/390. This can include issuing commands and responding to messages.

translating host. Role played by a host that turns a resource number into a token during a unification process.

trigger. Triggers, in combination with events and service periods, are used to control the starting and stopping of applications in a single system or a parallel sysplex.

TSO. Time Sharing Option.

TSO console. From this 3270-type console you are logged onto TSO or ISPF to use the runtime panels for I/O operations and System Automation for OS/390 customization panels.

TSO/E. TSO Extensions.

U

UCB. The unit control block; an MVS/ESA data area that represents a device and which is used for allocating devices and controlling I/O operations.

unsolicited message. A System Automation for OS/390 message that is not a direct response to a command. Contrast with *solicited message*.

user task. An application of the NetView program defined in a NetView TASK definition statement.

Using. An RMF Monitor III definition. Jobs getting service from hardware resources (processors or devices) are **using** these resources. The use of a resource by an address space can vary from 0% to 100% where 0% indicates no use during a Range period, and 100% indicates that the address space was found using the resource in every sample during that period. See also *Workflow*.

V

view. In the NetView Graphic Monitor Facility, a graphical picture of a network or part of a network. A view consists of nodes connected by links and may also include text and background lines. A view can be displayed, edited, and monitored for status information about network resources.

Virtual Machine/System Product (VM/SP). An IBM licensed program. It is an operating system that manages the resources of a real processor to provide virtual machines to end users. As a time-sharing system control program, it consists of the virtual machine control program (CP), the conversational monitor system (CMS), the group control system (GCS), and the interactive problem control system (IPCS).

Virtual Storage Extended (VSE). An IBM licensed program whose full name is Virtual Storage Extended/Advanced Function. It is an operating system that controls the execution of programs.

Virtual Telecommunications Access Method (VTAM). An IBM licensed program that controls communication and the flow of data in an SNA network. It provides single-domain, multiple-domain, and interconnected network capability. Its full name is Advanced Communications Function for the Virtual Telecommunications Access Method. Synonymous with *ACF/VTAM*.

VM/ESA. Virtual Machine/Enterprise Systems Architecture.

VM/SP. Virtual Machine/System Product.

VM/SP HPO. Virtual Machine/System Product High Performance Option.

volume. A direct access storage device (DASD) volume or a tape volume that serves a system in a System Automation for OS/390 enterprise.

volume entry. A construct, created with the customization dialogs, used to represent and contain policy for a volume.

volume group. A named set of volumes. A volume group is part of a system definition and is used for monitoring purposes.

volume group entry. An construct, created with the customization dialogs, used to represent and contain policy for a volume group.

Volume Workflow. The System Automation for OS/390 Volume Workflow variable is derived from the RMF Resource Workflow definition, and is used to measure the performance of volumes. System Automation for OS/390 calculates Volume Workflow using:

$$\text{Volume Workflow \%} = \frac{\text{accumulated Using}}{\text{accumulated Using} + \text{accumulated Delay}} * 100$$

The definition of **Using** is the percentage of time when a job has had a request accepted by a channel for the volume, but the request is not yet complete.

The definition of **Delay** is the delay that waiting jobs experience because of contention for the volume. See also *Address Space Workflow*.

VSE. Virtual Storage Extended.

VTAM. Virtual Telecommunications Access Method.

W

warning threshold. An application or volume service value that determines the level at which System Automation for OS/390 changes the associated icon in the graphic interface to the warning color. See *alert threshold*.

workflow. See *Address Space Workflow* and *Volume Workflow*.

workstation. In System Automation for OS/390 workstation means the *graphic workstation* that an operator uses for day-to-day operations.

write-to-operator (WTO). A request to send a message to an operator at the OS/390 operator console. This request is made by an application and is handled by the WTO processor, which is part of the OS/390 supervisor program.

write-to-operator-with-reply (WTOR). A request to send a message to an operator at the OS/390 operator console which requires a response from the operator. This request is made by an application and is handled by the WTO processor, which is part of the OS/390 supervisor program.

WTO. Write-to-Operator.

WTOR. Write-to-Operator-with-Reply.

WWV. The US National Institute of Standards and Technology (NIST) radio station that provides standard time information. A second station, known as WWVB, provides standard time information at a different frequency.

X

XCF. Cross-system coupling facility.

XCF couple data set. The name for the sysplex couple data set prior to MVS/ESA System Product Version 5 Release 1. See also *sysplex couple data set*.

XCF group. A set of related members that a multisystem application defines to XCF. A member is a specific function, or instance, of the application. A member resides on one system and can communicate with other members of the same group across the sysplex.

XRF. Extended recovery facility.

Numerics

3090/ACA/ISCF. 3090 Automated Console Application for Inter-System Control Facility.

3090/Automated Console Application/ISCF (3090/ACA/ISCF). A program offering that runs as a NetView application in conjunction with ISCF. It provides some built-in automation and an enhanced user interface. 3090/ACA/ISCF is limited to 3090 OS/390 targets.

3270 connection card. A 3270 emulator card installed in a workstation used to connect the workstation to the target system. Four 3270 connection cards can be installed in a workstation.

37x5. A 3705, 3725, or 3745 communication controller.

3x74. A 3174 or 3274 subsystem control unit. A control unit to which 3270-family display stations are attached.

390-CMOS. Processor family group designator used in the System Automation for OS/390 processor operations documentation and in the online help to identify any of the following S/390 CMOS processor machine types: 9672, 9674, 2003, 3000, or 7060. System Automation for OS/390 processor operations uses the OCF facility of these processors to perform operations management functions. See *OCF-based processor*.

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Operator's Commands
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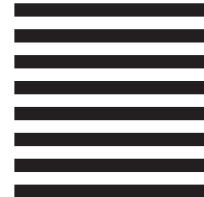
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