CICS® Transaction Server for z/OS™

CICSPlex® SM Application Programming Reference

Version 2 Release 1

SC34-5731-00

CICS® Transaction Server for z/OS™

CICSPlex® SM Application Programming Reference

Version 2 Release 1

SC34-5731-00

Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 189.

First Edition, March 2001

This edition applies to Version 2 Release 1of CICS Transaction Server for z/OS, program number 5697-E93, and to all subsequent versions, releases, and modifications until otherwise indicated in new editions. Information in this edition was previously contained in SC33-1430-01, which is now obsolete. Make sure you are using the correct edition for the level of the product.

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Contents

Preface

This book provides programming information for the IBM CICSPlex® System Manager(CICSPlex SM) element of CICS® Transaction Server for z/OS®. It describes how to use the application programming interface (API) to access CICSPlex SM data and services.

Who this book is for

This book is for application programmers who want to access the services of CICSPlex SM.

What you need to know

It is assumed that you have experience writing programs in COBOL, C, PL/I, assembler language, or REXX. You should also have knowledge of the CICSPlex SM concepts and terminology introduced in the *CICSPlex System Manager Concepts and Planning* book.

For guidance information on how to use the CICSPlex SM API see the *CICSPlex System Manager Application Programming Guide*.

While you are using this book, you will need to refer to the *CICSPlex System Manager Resource Tables Reference* for descriptions of the resource tables that you can access. You may also need to refer to the following books:

CICSPlex System Manager Managing Business Applications
: For information about Business Application Services definitions.

CICSPlex System Manager Managing Resource Usage
: For information about real-time analysis and Monitoring definitions.

CICSPlex System Manager Managing Workloads
: For information about Workload Manager definitions.

How to use this book

This book contains reference information about the API commands. Each command description includes:

- A description of what the command does
- The syntax of the command
- A description of the command options in alphabetical order
- A list of the command response values.

Notes on terminology

In the text of this book, the term **CICSPlex SM** (spelled with an uppercase letter 'P') means the IBM CICSPlex System Manager element of CICS Transaction Server for z/OS. The term **CICSplex** (spelled with a lowercase letter 'p') means the largest set of CICS systems to be managed by CICSPlex SM as a single entity.

Other terms used in this book are:

Term	**Meaning**
API	Application programming interface

ASM	Assembler language
CICS TS for OS/390	The CICS element of the CICS TS for OS/390
MVS	MVS/Enterprise Systems Architecture SP (MVS/ESA)

CICS System Connectivity

This release of CICSPlex SM may be used to control CICS systems that are directly connected to it, and indirectly connected through a previous release of CICSPlex SM.

For this release of CICSPlex SM, the directly-connectable CICS systems are:
- CICS Transaction Server for z/OS 2.1
- CICS Transaction Server for OS/390 1.3
- CICS Transaction Server for OS/390 1.2
- CICS Transaction Server for OS/390 1.1
- CICS for MVS/ESA 4.1
- CICS for OS/2 3.1
- CICS for OS/2 3.0

CICS systems that are not directly connectable to this release of CICSPlex SM are:
- CICS for MVS/ESA 3.3
- CICS for MVS 2.1.2
- CICS/OS2 2.0.1

Note: IBM Service no longer supports these CICS release levels.

You can use this release of CICSPlex SM to control CICS systems that are connected to, and managed by, your previous release of CICSPlex SM. However, if you have any directly-connectable release levels of CICS, as listed above, that are connected to a previous release of CICSPlex SM, you are strongly recommended to migrate them to the current release of CICSPlex SM, to take full advantage of the enhanced management services. See the *CICS Transaction Server for z/OS Migration Guide* for information on how to do this.

Table 1 shows which CICS systems may be directly connected to which releases of CICSPlex SM.

Table 1. Directly-connectable CICS systems by CICSPlex SM release

CICS system	CICSPlex SM component of CICS TS 2.1	CICSPlex SM component of CICS TS 1.3	CICSPlex SM 1.3	CICSPlex SM 1.2
CICS TS 2.1	Yes	No	No	No
CICS TS 1.3	Yes	Yes	No	No
CICS TS 1.2	Yes	Yes	Yes	No
CICS TS 1.1	Yes	Yes	Yes	Yes
CICS for MVS/ESA 4.1	Yes	Yes	Yes	Yes
CICS for MVS/ESA 3.3	No	No	Yes	Yes
CICS for MVS 2.1.2	No	No	Yes	Yes
CICS for OS/2 3.1	Yes	Yes	No	No

Table 1. Directly-connectable CICS systems by CICSPlex SM release (continued)

CICS system	**CICSPlex SM component of CICS TS 2.1**	**CICSPlex SM component of CICS TS 1.3**	**CICSPlex SM 1.3**	**CICSPlex SM 1.2**
CICS for OS/2 3.0	Yes	Yes	Yes	Yes
CICS/OS2 2.0.1	No	No	Yes	Yes

Summary of changes

This book is based on the Release 3 edition of the *CICSPlex SM Application Programming Reference*. The information in this book has been updated to incorporate changes made for CICSPlex SM for CICS Transaction Server for z/OS, Version 2 Release 1. Changes made since the last edition are indicated by vertical bars to the left of the change.

Chapter 1. Introduction to the commands

This chapter provides standard usage information about the CICSPlex SM application programming interface (API) commands:
- "Using the command-level interface"
- "Using the run-time interface" on page 5

Using the command-level interface

Command format

The format of an API command when issued through the command-level interface is EXECUTE CPSM (or EXEC CPSM) followed by the name of the required command and possibly by one or more options, as follows:

```
   EXEC CPSM command option(arg)....
```

where:

command
Describes the operation required (for example, CONNECT).

option Describes any of the required or optional facilities available with each command. Some options are followed by an argument in parentheses. You can write options (including those that require arguments) in any order.

arg Which is short for argument, is a value such as *data-value* or *data-ref*. A *data-value* can be a constant. This means that an argument that sends data to CICSPlex SM is generally a *data-value*. An argument that receives data from CICSPlex SM must be a *data-ref*.

Here is an example of an EXEC CPSM command:

```
   EXEC CPSM CONNECT
             USER(JONES) VERSION(0140)
             CONTEXT(EYUPLX01) SCOPE(EYUCSG01)
             THREAD(THRDTKN)
             RESPONSE(RESPVAR) REASON(REASVAR)
```

You must add an end-of-command delimiter that is valid for the programming language you are using. In COBOL programs, for example, the end-of-command delimiter is an END-EXEC statement. In PL/I and C programs, the delimiter is a semicolon (;).

Argument values

For the command-level interface, the parenthesized argument values that follow options in an API command are specified as follows:

data-value
A sending argument used to pass data from your program to CICSPlex SM.

The data you pass can be fullword binary data, fixed or variable length character data, or unspecified. If the data type is unspecified, CICSPlex SM assumes a composite data structure made up of multiple fields of varying data types. The argument can be in one of these forms:
- Variable name
- Self-defining term

- Expression.

data-value includes *data-ref* as a subset.

data-ref
: A receiving (or sending and receiving) argument used primarily to pass data from CICSPlex SM to your program.

The data can be any of the same types allowed for *data-value* arguments. However, the argument must be a named variable.

In some cases, you can use a *data-ref* argument to provide input to CICSPlex SM before CICSPlex SM returns its output to you (the COUNT option on the FETCH command is an example of this).

data-area
: A sending or receiving argument used to identify a buffer that contains data. A *data-area* argument can be considered a *data-ref* argument with an unspecified data type. A *data-area* cannot be defined by a self-defining term or expression; it must be a named variable.

ptr-ref
: A receiving argument used to pass pointer values from CICSPlex SM to your program.

A *ptr-ref* argument is a special form of *data-ref* argument. The data being passed is an address pointer, rather than binary or character data.

cpsm-token
: A sending or receiving argument used to pass identifying tokens that are generated by CICSPlex SM. A *cpsm-token* argument can be considered a *data-ref* argument with an unspecified data type.

Tokens are created by CICSPlex SM to identify API processing threads, result sets, filters, and notifications.

Because token values are created by CICSPlex SM, your program must receive a token into a variable before it can specify that token on subsequent commands. A token cannot be defined by a self-defining term or expression; it must be a named variable.

COBOL argument values

The argument values can be replaced as follows:

data-value
: Can be replaced by any COBOL data name of the correct data type for the argument, or by a constant that can be converted to the correct type for the argument. The data type can be specified as one of the following:

- Halfword binary — PIC S9(4) USAGE BINARY
- Fullword binary — PIC S9(8) USAGE BINARY
- Character string — PIC X(n) where “n” is the number of bytes.

data-value includes *data-ref* as a subset.

data-ref
: Can be replaced by any COBOL data name of the correct data type for the argument. The data type can be specified as one of the following:

- Halfword binary — PIC S9(4) USAGE BINARY
- Fullword binary — PIC S9(8) USAGE BINARY
- Character string — PIC X(n) where “n” is the number of bytes.

Where the data type is unspecified, *data-ref* can refer to an elementary or group item.

data-area
: Can be replaced by any COBOL data name with a data type of halfword binary (PIC S9(4) COMP), fullword binary (PIC S9(8) COMP), or character string (PIC X(n)).

ptr-ref
: Can be replaced by a pointer variable or an ADDRESS special register.

cpsm-token
: Can be replaced by any COBOL data name with a data type of fullword binary, PIC S9(8) COMP.

C argument values

The argument values can be replaced as follows:

data-value

Can be replaced by any C expression that can be converted to the correct data type for the argument. The data type can be specified as one of the following:

- Halfword binary — short int
- Fullword binary — long int
- Character array — char[n] where “n” is the number of bytes in the field (the field must be padded with blank spaces).

data-value includes *data-ref* as a subset.

data-ref

Can be replaced by any C data reference that has the correct data type for the argument. The data type can be specified as one of the following:

- Halfword binary — short int
- Fullword binary — long int
- Character array — char[n] where “n” is the number of bytes in the field (the field is padded with blank spaces).

If the data type is unspecified, *data-ref* can refer to a scalar data type, array, or structure. The reference must be to contiguous storage.

data-area

Can be replaced by any named variable with a data type of halfword binary (short int), fullword binary (long int), or character array (char[n]).

ptr-ref Can be replaced by any C pointer type reference.

cpsm-token

Can be replaced by any named variable with a data type of fullword binary, long int.

PL/I argument values

The argument values can be replaced as follows:

data-value

Can be replaced by any PL/I expression that can be converted to the correct data type for the argument. The data type can be specified as one of the following:

- Halfword binary — FIXED BIN(15)
- Fullword binary — FIXED BIN(31)
- Character string — CHAR(n) where “n” is the number of bytes.

data-value includes *data-ref* as a subset.

data-ref
: Can be replaced by any PL/I data reference that has the correct data type for the argument. The data type can be specified as one of the following:
- Halfword binary — FIXED BIN(15)
- Fullword binary — FIXED BIN(31)
- Character string — CHAR(n) where “n” is the number of bytes.

If the data type is unspecified, *data-ref* can refer to an element, array, or structure; for example, FROM(P–>STRUCTURE) LENGTH(LNG). The reference must be to connected storage.

The data area must also have the correct PL/I alignment attribute: ALIGNED for binary items, and UNALIGNED for strings.

If you use a varying data string without an explicit length, the data passed begins with two length bytes, and its length is the maximum length declared for the string. If you explicitly specify a length in the command, the data passed has this length; that is, the two length bytes followed by data up to the length you specified.

data-area
: Can be replaced by any named variable with a data type of halfword binary (FIXED BIN(15)), fullword binary (FIXED BIN(31)), or character string (CHAR(n)).

ptr-ref
: Can be replaced by any PL/I reference of type POINTER ALIGNED.

cpsm-token
: Can be replaced by any named variable with a data type of fullword binary, FIXED BIN(31).

Assembler language argument values

In general, an argument may be either the address of the data or the data itself (in assembler-language terms, either a relocatable expression or an absolute expression).

A relocatable expression must not contain unmatched brackets (outside quotation marks) or unmatched quotation marks (apart from length-attribute references). If this rule is obeyed, any expression can be used, including literal constants, such as =AL2(100), forms such as 20(0,R11), and forms that use the macro-replacement facilities.

An absolute expression must be a single term that is either a length-attribute reference, or a self-defining constant.

Care must be taken with equated symbols, which should be used only when referring to registers (pointer references). If an equated symbol is used for a length, for example, it is treated as the address of the length and an unpredictable error occurs.

The argument values can be replaced as follows:

data-value
: Can be replaced by a relocatable expression that is an assembler-language reference to data of the correct type for the argument, or by a constant of the correct type for the argument.

data-ref
: Can be replaced by a relocatable expression that is an assembler-language reference to data of the correct type for the argument.

data-area
: Can be replaced by a relocatable expression that is an assembler-language reference to data with a type of halfword (DS H), fullword (DS F), or character string (CLn).

ptr-ref
: Can be replaced by any absolute expression that is an assembler-language reference to a register.

cpsm-token
: Can be replaced by a relocatable expression that is an assembler-language reference to data with a type of fullword, DS F.

Using the run-time interface

Command format

An API command can be passed from REXX to CICSPlex SM in one of two ways. The first method is to use the REXX ADDRESS command, like this:

```
ADDRESS CPSM 'command option(arg)...'
```

This method of calling the API invokes a CICSPlex SM host subcommand environment.

Alternatively, you can use the EYUAPI() function supplied by CICSPlex SM:

```
var = EYUAPI('command option(arg)...')
```

This method invokes the CICSPlex SM REXX function package.

Note that with both methods you can enter text in either upper or lower case.

Here is an example of an API command as it would be issued from a REXX program:

```
var = EYUAPI('CONNECT'                  ,
             'CONTEXT('WCONTEXT')' ,
             'SCOPE('WSCOPE')'      ,
             'VERSION(0140)'       ,
             'THREAD(THRDTKN)'      ,
             'RESPONSE(RESPVAR)' ,
             'REASON(REASVAR)')
      .
      .
```

Argument values

The CICSPlex SM run-time interface makes full use of the standard REXX variable interface. REXX processes variables differently depending on the parameter's data type and whether it is used for input, output, or both. In addition, REXX provides substitution of variables into a command stream that may in some cases make them transparent to the run-time interface.

For the REXX run-time interface, the parenthesized argument values that follow options in an API command are specified as follows:

data-value
A sending argument used to pass character or binary data from your program to CICSPlex SM.

A *data-value* argument is considered to be character input. Binary data (including EYUDA and CVDA values) is translated into the appropriate internal format. User tokens are not translated.

data-ref
A receiving (or sending and receiving) argument used primarily to pass data from CICSPlex SM to your program.

A *data-ref* argument must be a named variable that can be used to receive the resulting output. The output data is translated as appropriate:

- Character data is not translated; the data is placed into the variable as is.
- Binary data is translated to display format (decimal) and placed into the variable.
- User tokens are not translated; the token value is placed into the variable as is.
- Address values are not translated; the specified storage buffer is placed directly into one or more variables.

In some cases, you can use a *data-ref* argument to provide input to CICSPlex SM before CICSPlex SM returns its output to you (the COUNT option on the FETCH command is an example of this). If a *data-ref* argument can be supplied as input, you must specify a variable for that argument. If you do not want to specify an input value, you should initialize the variable.

data-area
A sending or receiving argument used to identify a buffer that contains data. A *data-area* argument must be a named variable.

For output buffers that could receive multiple resource table records, CICSPlex SM creates (or fills) stem variables to hold the data. The zero entry of the stem array indicates the number of entries in the array.

For example, in the stem variable called W_INTO_EVALDEF, the W_INTO_EVALDEF.0 entry contains the number of EVALDEF resource table records returned. The entries W_INTO_EVALDEF.1 through W_INTO_EVALDEF.n contain the actual resource table records.

A stem variable is created regardless of whether the actual output is a single record or multiple records.

ptr-ref
A receiving argument used to pass pointer values from CICSPlex SM to your program.

A *ptr-ref* argument must be a named variable that can be used to receive the resulting output. The data being passed is a character representation of a hexadecimal address.

cpsm-token
A sending or receiving argument used to pass identifying tokens that are generated by CICSPlex SM.

A *cpsm-token* argument must be a named variable. Tokens are not translated; the token value is placed into the variable as is.

Note: Each variable (or stem variable) returned by CICSPlex SM contains an entire resource table record. You can use the TPARSE command to break a record into individual fields. For a description of this command, see "Chapter 3. REXX functions and commands" on page 129.

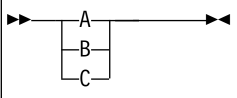
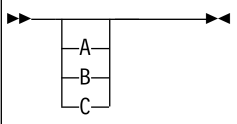
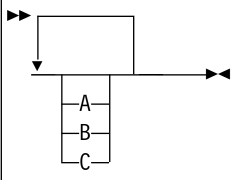
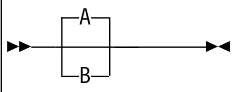
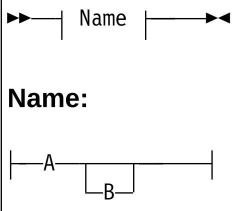
Syntax notation used in this book

In this book, the CICSPlex SM API commands are presented in a standard way.

The EXEC CPSM that precedes the command name in the command-level interface is not shown, nor is the end-of-command delimiter. Likewise, the ADDRESS CPSM or var=EYUAPI() that is required for the REXX run-time interface is not shown.

You interpret the syntax diagrams shown in this book by following the arrows from left to right. The conventions are:

syntax notation used in this book

Symbol	Meaning
	A set of mutually exclusive alternatives, one of which you *must* code.
	A set of mutually exclusive alternatives, one of which you *may* code.
	A set of alternatives, any number of which you may code.
	Alternatives where A is the default.
	See the separate syntax fragment whose name is shown.
Punctuation and uppercase characters	Code exactly as shown.
Lowercase italics	Code your own text, as appropriate (for example, *name*).

For example, with `CONNECT VERSION(`*data-value*`)` you must code `CONNECT VERSION` and `()` as they appear, but are free to code any four-character number that represents a valid release of CICSPlex SM.

MVS/ESA restrictions

The following general restrictions apply to all CICSPlex SM API commands:

- The program must be in primary addressing mode when invoking any CICSPlex SM service. The primary address space must be the home address space. All parameters passed to CICSPlex SM must reside in the primary address space.

- CICSPlex SM does not always preserve access registers across commands. If your program uses access registers, it should save them before invoking a CICSPlex SM service, and restore them before reusing them.

Language considerations

All of the language considerations that apply to the various environments (CICS, MVS/ESA™ batch, TSO, and NetView®) also apply to CICSPlex SM programs written to run in those environments.

CICS and CICSPlex SM value data areas

The values for some CICSPlex SM resource table attributes are maintained in an encoded form. These values can be:

- CICSPlex SM value data areas (EYUDAs)
- CICS value data areas (CVDAs).

You can use one of two built-in translator functions to translate these values:

EYUDAs
Use the CICSPlex SM translator function called EYUVALUE. You must also specify the CPSM translator option when you run the CICS/ESA® translator.

CVDAs
Use the CICS translator function called DFHVALUE. You must also specify the CICS translator option when you run the CICS/ESA translator.

For example, consider the following COBOL statement:

```
MOVE EYUVALUE(QUIESCING) TO EYUDATA
```

This statement translates the EYUDA character value of QUIESCING into its numeric equivalent of 48 when the program is translated.

Notes:

1. The EYUVALUE function is not available to programs written in REXX. You can use the TPARSE command, which is supplied specifically for REXX programs, to access and translate the attribute values in a resource table. For a description of this command, see "Chapter 3. REXX functions and commands" on page 129.
2. In some CICS environments, the DFHVALUE function returns incompatible CVDA values for the following resource table attribute:

Resource table	Attribute value	CICS Environment
LOCTRAN	RESSEC(RESSECEXT)	CICS/MVS

   Because these CVDA values conflict with values used in other CICS environments, CICSPlex SM must modify them to retain their uniqueness. CICSPlex SM adds 9000 to the value returned by DFHVALUE for each of these CICS CVDA attributes.

CICSPlex SM also provides a TRANSLATE command to translate EYUDA and CVDA values at run time. You can use TRANSLATE to convert an EYUDA or CVDA value that is associated with a specific resource table and attribute. For example:

CICS and CICSPlex SM value data areas

```
EXEC CPSM TRANSLATE OBJECT(WLMAWAOR)
                    ATTRIBUTE(STATUS)
                    FROMCV(48)
                    TOCHAR(EYUCHAR)
                    RESPONSE(RESPDATA)
                    REASON(REASDATA)
```

This command translates the EYUDA value for the STATUS attribute of the WLMAWAOR resource table into its character value when the program is run.

For a description of the TRANSLATE command, see “TRANSLATE” on page 118.

Note: For a list of the EYUDA values used by CICSPlex SM, see “Appendix B. EYUDA values” on page 147.

Length options

Many API commands involve the transfer of data between the application program and CICSPlex SM.

In VS COBOL II, PL/I, and Assembler language, the translator can default certain length options; this means they may be optional in programs that specify data areas. In C and REXX, all length options must be specified.

The CICSPlex SM API allows most `data-value` arguments, which are only passed from your program to CICSPlex SM, to default. The exception is the LENGTH option on the following commands:

- CREATE
- REMOVE
- UPDATE

On the other hand, `data-ref` arguments, which can be passed from your program to CICSPlex SM and back again, must always be specified.

When an API command offers a length option, it is always expressed as a signed fullword binary value. This puts a theoretical upper limit of 2 147 483 647 bytes on the length. The achievable upper limit varies from command to command and with various language compilers, but it is somewhat less than the theoretical maximum.

RESPONSE and REASON options

Once an API command completes processing, it returns a response and, if appropriate, a reason. You must specify the RESPONSE and REASON options on each command to receive the response and reason values returned by that command.

Note: The TBUILD and TPARSE commands, which can be used only with the REXX run-time interface, do not use the RESPONSE and REASON options. The result of these REXX-specific processes is returned by their STATUS option. For more information, see the descriptions of the TBUILD and TPARSE commands in “Chapter 3. REXX functions and commands” on page 129.

RESPONSE*(data-ref)*
data-ref is a user-defined variable. On return from the command, it contains a character value that describes the result of command processing. RESPONSE values are given in the description of each command.

REASON(*data-ref*)
: *data-ref* is a user-defined variable. On return from the command, it contains a value that further qualifies the response to certain commands. REASON values are given with the RESPONSE values, for those responses that use them.

For more information about the RESPONSE and REASON options, see *CICSPlex System Manager Application Programming Guide*. For a summary of RESPONSE and REASON values by command, see “Appendix A. RESPONSE and REASON values” on page 139.

Chapter 2. The API commands

This chapter contains detailed descriptions of the CICSPlex SM API commands. All of these commands can be used with either the command-level interface or the REXX run-time interface.

Each description includes the following, as appropriate:

- A description of the command
- Usage notes
- Related commands
- Syntax of the command
- Available options for the command
- Responses returned by the command

The commands are presented in alphabetical order:

- "ADDRESS" on page 14
- "CANCEL" on page 17
- "CONNECT" on page 19
- "COPY" on page 23
- "CREATE" on page 27
- "DELETE" on page 30
- "DISCARD" on page 33
- "DISCONNECT" on page 36
- "FEEDBACK" on page 38
- "FETCH" on page 42
- "GET" on page 48
- "GETDEF" on page 53
- "GROUP" on page 58
- "LISTEN" on page 62
- "LOCATE" on page 65
- "MARK" on page 70
- "ORDER" on page 74
- "PERFORM OBJECT" on page 77
- "PERFORM SET" on page 83
- "QUALIFY" on page 88
- "QUERY" on page 91
- "RECEIVE" on page 94
- "REFRESH" on page 97
- "REMOVE" on page 102
- "SET" on page 105
- "SPECIFY FILTER" on page 111
- "SPECIFY VIEW" on page 114
- "TERMINATE" on page 117
- "TRANSLATE" on page 118
- "UNMARK" on page 121
- "UPDATE" on page 125

ADDRESS

Provide access to CICSPlex SM storage areas.

```
►►──ADDRESS──┬───────────────┬──┬────────────────────┬──THREAD(cpsm-token)──────►
             └─ECB(ptr-ref)──┘  └─SENTINEL(ptr-ref)──┘

►──RESPONSE(data-ref)──REASON(data-ref)──────────────────────────────────────►◄
```

Description

The ADDRESS command provides access to CICSPlex SM storage areas.

- ADDRESS returns the addresses of two control fields that are associated with each API thread:
  - the event control block (ECB)
  - the sentinel.
- If your program is written in REXX, the ECB and sentinel values are returned as character representations of the hexadecimal addresses. You have to use the REXX STORAGE function to access the storage at those addresses.

Related commands

LISTEN, RECEIVE

Options

ECB*(ptr-ref)*
Names a variable to receive the address of the ECB that will be posted when asynchronous requests associated with this thread are awaiting processing. The ECB field is cleared whenever the counter value in the SENTINEL field reaches 0.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

SENTINEL*(ptr-ref)*
Names a variable to receive the address of a 4-byte counter of completed asynchronous requests associated with this thread.

The sentinel value increases each time an asynchronous request completes. Examples of asynchronous requests include:

- A command is issued with the NOWAIT option
- An event occurs that is named in a LISTEN command.

The sentinel value decreases when a RECEIVE command is issued. If the counter value is 0, it means there are no outstanding asynchronous requests to be received.

Note: Each API processing thread can handle a maximum of 256 asynchronous requests (as indicated by the SENTINEL counter) at one time.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the ADDRESS command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
ECB
SENTINEL
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:
APITASK
The API control subtask is not active.
CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:
NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

CANCEL

Cancel the notification request produced by a previous LISTEN command.

```
►►──CANCEL──NOTIFICATION(cpsm-token)──THREAD(cpsm-token)──RESPONSE(data-ref)──────►

►─REASON(data-ref)────────────────────────────────────────────────────────────────►◄
```

Description

This command cancels the notification request produced by a previous LISTEN command.

Related commands

LISTEN

Options

NOTIFICATION*(cpsm-token)*
: Identifies the notification request to be cancelled. The *cpsm-token* value that identifies a notification request is returned by the LISTEN command.

REASON*(data-ref)*
: Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
: Names a variable to receive the fullword response value returned by this command.

THREAD*(cpsm-token)*
: Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the CANCEL command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

FAILED
: The command failed for one of the following reasons:
  - **ABENDED**
    Command processing abended.
  - **EXCEPTION**
    Command processing encountered an exceptional condition.

ENVIRONERROR
: An environment error occurred for one of the following reasons:
  - **NOSERVICE**
    The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
NOTIFICATION
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

CONNECT

Establishe a connection with CICSPlex SM, defines an API processing thread, and provides default settings to be used by the thread.

```
►►──CONNECT──VERSION(data-value)──────────────────────────────────────►

►──┬───────────────────────────────────────────┬──────────────────────►
   └─USER(data-value)──┬──────────────────────┬┘
                       └─SIGNONPARM(data-value)┘

►──┬──────────────────────────────────────┬─THREAD(data-ref)──────────►
   └─CONTEXT(data-value)──┬──────────────┬┘
                          └─SCOPE(data-value)┘

►─RESPONSE(data-ref)──REASON(data-ref)───────────────────────────────►◄
```

Description

The specifics of the connection process depend upon the environment in which your program is running. For a complete description of the connection process, see *CICSPlex System Manager Application Programming Guide*.

Related commands

DISCONNECT, QUALIFY, TERMINATE

Options

CONTEXT*(data-value)*
Identifies the default context for commands issued against this thread. The context must be the 1- to 8-character name of a CMAS or CICSplex.

The default context is in effect for all commands issued against the thread unless you override it for a specific command or change it by issuing the QUALIFY command. As an alternative to specifying a default context for the thread, you can specify the context for individual commands as they are processed.

If you do not specify the CONTEXT option, the default context for the thread is the CMAS to which the thread is connected.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

SCOPE*(data-value)*
Identifies the default scope for commands issued against this thread.

The SCOPE option qualifies the CONTEXT option. When the context is a CICSplex, the scope can be:

- The 1- to 8-character name of the CICSplex itself

- A CICS system or CICS system group within the CICSplex
- A logical scope, as defined in a CICSPlex SM resource description (RESDESC).

When the context is a CMAS, this option has no meaning and is ignored.

The default scope is in effect for all commands issued against the thread unless you override it for a specific command or change it by issuing the QUALIFY command. If you do not specify the SCOPE option, no default scope is assumed.

Note: Certain API commands require a valid scope when the context is a CICSplex. If you do not specify a scope on a CONNECT or QUALIFY command, then you must specify the SCOPE option when you issue any of these commands for a resource table that represents a CICS resource:

- GET
- PERFORM OBJECT
- PERFORM SET
- REFRESH
- SET.

SIGNONPARM*(data-value)*
Identifies a 1- to 8-character signon parameter to be passed to the API security exit routine (EYU9XESV) at your enterprise.

If CMAS security is active and CICSPlex SM finds no security defined in the environment where the API program is running, it passes the USER and SIGNONPARM values from the CONNECT command to EYU9XESV. For more information about API security, see *CICSPlex System Manager Application Programming Guide*.

THREAD*(data-ref)*
Names a variable to receive the fullword token that CICSPlex SM assigns to this processing thread.

This identifying token must be specified on all subsequent commands issued against this thread.

USER*(data-value)*
Identifies a 1- to 8-character user ID to be passed to the API security exit routine (EYU9XESV) at your enterprise.

If CMAS security is active and CICSPlex SM finds no security defined in the environment where the API program is running, it passes the USER and SIGNONPARM values from the CONNECT command to EYU9XESV. For more information about API security, see *CICSPlex System Manager Application Programming Guide*.

VERSION*(data-value)*
Identifies the release of CICSPlex SM resource table data that you want to be available to your program. The VERSION value must be the 4-character number of a valid CICSPlex SM release, such as 0140 for CICS Transaction Server for z/OS, Version 2 Release 1.

Notes:

1. The VERSION value must be 0120 or greater. The API cannot access data from a release of CICSPlex SM earlier than Release 2.

2. The VERSION value must be less than or equal to the version of the CICSPlex SM run-time environment.
3. You can specify a VERSION value that is greater than the release under which your API program was originally written, provided:
   - You compile your program using the appropriate copy books for the version specified.
   - Your program is compatible with the copy books for the version specified.

   For complete details on things to consider when running under a different release, see *CICSPlex System Manager Application Programming Guide*.

Conditions

The following is a list of the RESPONSE values that can be returned by the CONNECT command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

ENVIRONERROR
An environment error occurred for one of the following reasons:

APITASKERR
The API control subtask encountered an error during startup.

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

SOERESOURCE
A required resource that is owned by the Environment Services System Services (ESSS) address space is not available.

SOLRESOURCE
A required resource that is locally owned (that is, owned by the address space where the processing thread is running) is not available.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

CONTEXT
SCOPE
SIGNONPARM
USRID
VERSION.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

CPSMSERVER
The CMAS to which the processing thread was trying to connect is not available.

CPSMSYSTEM
No CICSPlex SM systems are available.

CPSMVERSION
No CICSPlex SM system at the specified version is available.

NOTPERMIT
A not permitted condition occurred for one of the following reasons:

EXPIRED
The security authorization of the specified user ID has expired.

SIGNONPARM
The specified signon parameter is not authorized for the user ID.

USRID
The specified user ID does not have the required security authorization.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

COPY

Copy resource table records.

```
                                             ┌─ALL──────────────────┐
►►──COPY──FROM(cpsm-token)──TO(cpsm-token)───┼──────────────────────┼────────────►
                                             ├─CURRENT──────────────┤
                                             ├─FILTER(cpsm-token)───┤
                                             ├─MARKED───────────────┤
                                             ├─NOTFILTER(cpsm-token)┤
                                             └─NOTMARKED────────────┘

                          ┌─REPLACE─┐
►──┬───────────────────┬──┼─────────┼──THREAD(cpsm-token)──RESPONSE(data-ref)────────►
   └─COUNT(data-ref)───┘  ├─ADD─────┤
                          └─UPDATE──┘

►─REASON(data-ref)───────────────────────────────────────────────────────────────►◄
```

Description

This command copies some or all of the resource table records in one result set to another result set on the same processin thread.

- The COPY command always begins processing with the last record that was fetched, rather than the next one in the result set.
- The target result set can be an existing result set or a new one that is created by this process. If you specify an existing result set as the target, you can either overwrite the existing records or add to them.
- A result set can contain only one record for a given resource. If duplicate records are found during the copy process, the ADD, REPLACE or UPDATE option you specified determines which record is retained.
- To copy selected records from a source result set, you can use:
  – The SPECIFY FILTER command to define a filter for the source result set.
  – The MARK and UNMARK commands to mark records in the source result set. Any marks you place on records in the source result set are not retained when those records are copied to the target result set.
- The relative position of records in the target result set may not be the same as it was in the source result set. The position can be affected by:
  – Deleted records being left in the source result set (when COPY ALL is specified) and other records assuming their position in the target result set.
  – The sort order associated with the target result set, if any. If the target result set does not exist, records are copied in the same order as they appeared in the source result set. If an existing result set is named as the target, records are copied and then sorted according to the sort order that was in effect for that result set.

Related commands

DELETE, DISCARD, GET, GETDEF, LOCATE, MARK, ORDER,
PERFORM OBJECT, QUERY, SPECIFY FILTER

Options

ADD
Adds the resource table records from the source result set to an existing target result set. If duplicate records are found, the record in the target result set is retained.

If no existing result set is specified as the target, the ADD option is ignored.

ALL
Copies all the resource table records in the source result set to the target result set.

Any records that have been deleted from the source result set are not copied. In effect, the ALL option compresses a result set by leaving deleted records in the source result set and copying the remaining records to a new result set.

COUNT*(data-ref)*
Names a variable to receive the number of resource table records in the target result set after the copy process is complete.

CURRENT
Copies only the current resource table record in the source result set to the target result set.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option copies only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

FROM*(cpsm-token)*
Identifies the source result set for this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- PERFORM OBJECT.

MARKED
Copies only those resource table records that are marked in the source result set. You can mark resource table records by using the MARK and UNMARK commands.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option copies only those resource table records that do not meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Copies only those resource table records that are not marked in the source result set. You can mark resource table records by using the MARK and UNMARK commands.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

REPLACE
Deletes the resource table records in an existing target result set and replaces them with the results of this copy operation. If the copy operation does not result in any resource table records being copied, the target result set is discarded.

If no existing result set is specified as the target, the REPLACE option is ignored.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TO*(cpsm-token)*
Identifies the target result set for this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- PERFORM OBJECT.

Note: The target result set cannot be the same as the source result set that you specified on the FROM option.

If this field is:

- Set to binary zero (in COBOL, C, PL/I or Assembler)
- An uninitialized variable (in REXX).

CICSPlex SM creates a new result set and returns its identifying token in the same field.

UPDATE
Updates an existing target result set with resource table records from the source result set. If duplicate records are found, the record in the source result set replaces the record in the target result set.

If no existing result set is specified as the target, the UPDATE option is ignored.

Conditions

The following is a list of the RESPONSE values that can be returned by the COPY command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria.

BUSY A busy condition occurred for one of the following reasons:

FROM The source result set specified on the FROM option is being processed by another command.

TO The target result set specified on the TO option is being processed by another command. This condition can occur if you specified the same result set on the FROM and TO options.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INCOMPATIBLE
An incompatible condition occurred for one of the following reasons:
INVALIDOBJ
The target result set specified on the TO option is not compatible with the source result set specified on the FROM option. The result sets must contain the same type of resource table records.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
FILTER
FROM
NOTFILTER
THREAD
TO.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:
APITASK
The API control subtask is not active.
CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:
NOTSUPPORTED
The version of the application stub program used for this command is not supported.
NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

CREATE

Create a new CICSPlex SM or CICS definition.

```
►►──CREATE──OBJECT(data-value)──FROM(data-area)──LENGTH(data-value)──────────►

►─┬─────────────────────────────────────┬─┬─────────────────────┬────────────►
  └─PARM(data-area)──PARMLEN(data-value)─┘ └─CONTEXT(data-value)─┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)──────────────────►◄
```

Description

This command creates a new CICSPlex SM or CICS definition using the attribute values you specify. The new definition is stored in the CICSPlex SM data repository. For definitions that have a CICSplex as their context (such as workload management or real-time analysis definitions), the new definition is automatically distributed to all the CMASs involved in managing the CICSplex.

Related commands

REMOVE, UPDATE

Options

CONTEXT*(data-value)*
: Identifies the context for this command. The context must be the 1- to 8-character name of a CMAS or CICSplex.

  If you do not specify the CONTEXT option, the default context for the thread is assumed.

FROM*(data-area)*
: Identifies a buffer containing a resource table record that represents the definition to be created.

  The record must include all of the attributes for the resource table specified on the OBJECT option. For optional attributes that you do not want to specify, set the field to the appropriate null value for the attribute's data type. See the *CICSPlex System Manager Resource Tables Reference* for a list of all permitted null values

LENGTH*(data-value)*
: A fullword value that specifies the length of the FROM buffer.

OBJECT*(data-value)*
: Identifies the resource table that represents the definition being created. This value must be the 1- to 8-character name of a valid CPSM Definition or CICS Definition resource table. For a list of the CICSPlex SM resource tables by type, see *CICSPlex System Manager Application Programming Guide*.

PARM*(data-area)*
: Identifies a buffer containing the parameter expression to be used in creating the definition.

  For details on how to use a parameter expression with the CREATE command, see *CICSPlex System Manager Application Programming Guide*. For a description of the parameters that are valid for a given resource table, see *CICSPlex System Manager Resource Tables Reference*.

PARMLEN*(data-value)*
A fullword value that specifies the length of the PARM buffer.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the CREATE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

REQTIMEOUT
One of the CMASs to which the request was directed did not respond.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

CONTEXT
FROM
LENGTH
OBJECT
PARM
PARMLEN
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CMAS A CMAS to which the request was directed is not available.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
The maintenance point for the current context is not available.

NOTPERMIT
A not permitted condition occurred for one of the following reasons:

USRID
The user ID associated with the processing thread does not have the required security authorization.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for one of the following reasons:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if:

- The resource table is missing required attributes, contains one or more conflicting attributes, or is a duplicate.
- A CICS resource definition contains attributes that would cause the EXEC CICS CREATE command to issue warnings.

Use the FEEDBACK command to retrieve additional data about this error.

INVALIDATTR
One of the resource table attributes is invalid.

INVALIDVER
The specified version of the resource table is not supported by CICSPlex SM.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

DELETE

Delete resource table records.

```
          ┌─CURRENT──────────────────┐
►►──DELETE──┼──────────────────────────┼──┬──────────────────┬──RESULT(cpsm-token)──►
          ├─ALL──────────────────────┤  └─COUNT(data-ref)─┘
          ├─FILTER(cpsm-token)───────┤
          ├─MARKED───────────────────┤
          ├─NOTFILTER(cpsm-token)────┤
          └─NOTMARKED────────────────┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)──────────────────────►◄
```

Description

This command deletes one or more resource table records from a result set.

- The DELETE command always begins processing with the last record that was fetched, rather than the next one in the result set.
- The records you delete are marked as deleted, but they retain their positions in the result set. The remaining records also retain their positions; they are not renumbered. Any API commands that you issue after a DELETE command skip over the deleted records in a result set. One exception is the ORDER command, which sorts all the records in a result set, including deleted records. If you try to issue a command against a deleted record, you receive a RESPONSE value of NODATA.
- To remove deleted records and compress a result set, you can copy the remaining records to a new result set. Use the COPY command with the ALL option to copy all the records in a result set except those that have been deleted.

  Note: Deleted records are also removed and the remaining records renumbered when you issue a REFRESH command.

Related commands

COPY, DISCARD, GET, GROUP, LOCATE, MARK, ORDER, PERFORM OBJECT, REFRESH, SPECIFY FILTER

Options

ALL
Deletes all the resource table records in the result set.

COUNT*(data-ref)*
Names a variable to receive the number of resource table records in the result set after the delete process is complete.

CURRENT
Deletes only the current resource table record in the result set.

Note: The record pointer remains positioned on the deleted record. If you issue another API command with the CURRENT option before repositioning the pointer, you receive a RESPONSE value of NODATA.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option deletes only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

MARKED
Deletes only those resource table records that are marked in the result set. You can mark resource table records by using the MARK and UNMARK commands.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option deletes only those resource table records that do not meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Deletes only those resource table records that are not marked in the result set. You can mark resource table records by using the MARK and UNMARK commands.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GROUP
- PERFORM OBJECT.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the DELETE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria.

BUSY A busy condition occurred for the following reason:

RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

SOLRESOURCE
A required resource that is locally owned (that is, owned by the address space where the processing thread is running) is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

FILTER
NOTFILTER
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

DISCARD

Discard a result set, filter, or view.

```
►►──DISCARD──┬─FILTER(cpsm-token)─┬──THREAD(cpsm-token)──RESPONSE(data-ref)──────►
             ├─RESULT(cpsm-token)─┤
             └─VIEW(data-value)───┘

►─REASON(data-ref)─────────────────────────────────────────────────────────────►◄
```

Description

This command discards a result set, filter, or view.

Related commands

COPY, GET, GETDEF, GROUP, PERFORM OBJECT, SPECIFY FILTER, SPECIFY VIEW

Options

FILTER*(cpsm-token)*
Identifies the filter to be discarded. The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be discarded. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- GROUP
- PERFORM OBJECT.

Note: If you discard a result set that was summarized by the GROUP command, all of the summarized result sets are also discarded.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

VIEW*(data-value)*
Identifies the view to be discarded. This value must be the 1- to 8-character name of a view as defined on a SPECIFY VIEW command.

Conditions

The following is a list of the RESPONSE values that can be returned by the DISCARD command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

BUSY A busy condition occurred for the following reason:

RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INUSE
An in use condition occurred for one of the following reasons:

FILTER
The specified filter is currently in use and cannot be discarded.

VIEW The specified view is currently in use and cannot be discarded.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

FILTER
RESULT
THREAD
VIEW.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

DISCONNECT

Disconnects an API processing thread from CICSPlex SM.

```
►►──DISCONNECT──THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)──────────►◄
```

Description

Any resources that are associated with the thread are released, including result sets, filters, views, diagnostic data, and outstanding asynchronous requests.

Related commands

CONNECT, TERMINATE

Options

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

THREAD*(cpsm-token)*
Identifies the API thread to be disconnected. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the DISCONNECT command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

FEEDBACK

Retrieve diagnostic data.

```
►►──FEEDBACK──INTO(data-area)──LENGTH(data-ref)──────────────────────────────►

►──┬──────────────────────────────────────────────────────┬──THREAD(cpsm-token)──►
   │                       ┌─NEXT──┐                      │
   └─RESULT(cpsm-token)────┤       ├───┬──────────────────┬┘
                           └─FIRST─┘   └─COUNT(data-ref)──┘

►─RESPONSE(data-ref)──REASON(data-ref)───────────────────────────────────────►◄
```

Description

This command retrieves diagnostic data about a previously issued API command.

- The diagnostic data is returned as FEEDBACK resource table records.
- If the previous command involved processing a result set and it returned a RESPONSE value other than OK, a FEEDBACK resource table record is appended to the end of each resource table record in the result set that had an error associated with it causing the non-OK RESPONSE to be sent. The diagnostic data is available to the FEEDBACK command until another command processes the same result set. At that point, the data is replaced with FEEDBACK records for the subsequent command.

  Note: No FEEDBACK records are produced if a command that processed a result set returned a RESPONSE value of OK.
- If the previous command did not process a result set, the FEEDBACK resource table records are returned in a separate feedback area. The records in that feedback area are cleared and refreshed for each command that is not result set-oriented. So for commands that place their diagnostic data in the feedback area rather than in a result set, FEEDBACK can retrieve data only for the most recently issued command.
- Once you have issued the FEEDBACK command to retrieve diagnostic data for a command, the feedback record or area is cleared. You cannot request the same FEEDBACK resource table records more than once.
- If a command is processed asynchronously (that is, you specify the NOWAIT option) the diagnostic data for that command is returned in the ASYNCREQ notification resource table. No FEEDBACK resource table records are produced for an asynchronous request.
- Diagnostic data is not available for these commands:
  - DISCONNECT
  - FEEDBACK
  - TERMINATE
- The TBUILD and TPARSE commands supplied for use in REXX programs do not provide any useful FEEDBACK information.

For a complete description of the FEEDBACK resource table, see *CICSPlex System Manager Resource Tables Reference*.

Options

COUNT(*data-ref*)
Specifies the number of feedback records to be retrieved from the result set named in the RESULT option. If you do not specify the COUNT option, only one feedback record is retrieved.

If you are retrieving multiple feedback records, they are placed one after another in the INTO buffer. The INTO buffer must be long enough to hold all the feedback records being retrieved.

The value that CICSPlex SM returns in this field depends on the RESPONSE value for the FEEDBACK command:

OK The actual number of records returned in the INTO buffer.

WARNING AREATOOSMALL
The number of records returned in the INTO buffer, which is not the total number of records requested.

INVALIDPARM LENGTH
The field is not set because the INTO buffer was not long enough to hold even one resource table record.

FIRST
Retrieves the first feedback record from the result set named in the RESULT option.

If you specify the COUNT option, FIRST retrieves the specified number of records, beginning with the first record in the result set.

INTO(*data-area*)
Identifies a buffer (or stem variable, in REXX) to receive the feedback data. This buffer must be long enough to hold all the feedback data being retrieved.

LENGTH(*data-ref*)
A fullword value that specifies the length of the INTO buffer.

The value that CICSPlex SM returns in this field depends on the RESPONSE value for the FEEDBACK command:

OK The actual length of the data returned in the INTO buffer.

WARNING AREATOOSMALL
The buffer length that would be required to hold all the requested records.

INVALIDPARM LENGTH
The field is not set because the INTO buffer was not long enough to hold even one resource table record.

NEXT
Retrieves the next available feedback record from the result set named in the RESULT option.

If you specify the COUNT option, NEXT retrieves the specified number of records, beginning with the next record in the result set.

REASON(*data-ref*)
Names a variable to receive the fullword reason value returned by this command.

RESPONSE(*data-ref*)
Names a variable to receive the fullword response value returned by this command.

FEEDBACK

RESULT(*cpsm-token*)
Identifies an API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GROUP
- PERFORM OBJECT.

Use the RESULT option to retrieve feedback data about a previously issued command that processed a result set. Use FEEDBACK without the RESULT option to retrieve data about the most recently issued command that did not process a result set.

THREAD(*cpsm-token*)
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the FEEDBACK command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria, or a command that processed a result set returned a RESPONSE of OK.

WARNING
The command completed processing with a warning, for the following reason:
AREATOOSMALL
The INTO buffer is not long enough to hold the number of records requested and available.

BUSY A busy condition occurred for the following reason:
RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
COUNT
INTO
LENGTH
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

FETCH

Retrieve data and status information for resource table records.

```
►►──FETCH──INTO(data-area)──LENGTH(data-ref)──┬──────────────────────┬──────────►
                                              ├─ALL──────────────────┤
                                              ├─FILTER(cpsm-token)───┤
                                              ├─MARKED───────────────┤
                                              ├─NOTFILTER(cpsm-token)┤
                                              └─NOTMARKED────────────┘

                                                    ┌─DATA───┐
►──┬─────────────────────┬──┬────────────────┬──────┼────────┼────────────────────►
   └─POSITION(data-value)┘  └─COUNT(data-ref)┘      ├─BOTH───┤
                                                    └─STATUS─┘

                                            ┌─FORWARD──┐
►──┬──────────────────────────────────┬─────┼──────────┼─RESULT(cpsm-token)───────►
   └─DETAIL──┬──────────────────┬─────┘     └─BACKWARD─┘
             └─APPLYSUMMARY─────┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)────────────────────────►◄
```

Description

This command retrieves data and status information for one or more resource table records in a result set.

- After a FETCH command, the record pointer is usually positioned to the next record in the result set (that is, the record following the last record fetched in whichever direction the pointer was moving, forward or backward). However, the following API commands always act upon the last record that was fetched (that is, the record pointer is not advanced):
  - COPY
  - DELETE
  - MARK.
  - UNMARK
- If no records were fetched (because no records matched the specified criteria), the pointer is positioned to the top or bottom of the result set, depending on which direction it was moving.

Related commands

COPY, GET, GETDEF, GROUP, LOCATE, MARK, ORDER, PERFORM OBJECT, QUERY, SPECIFY FILTER

Options

ALL
Retrieves all the resource table records in the result set. When you specify ALL, the POSITION and COUNT options are ignored.

APPLYSUMMARY
Apply any, some, or all of the following options to the summary records and retrieve the detail records associated with the summary records selected.

- MARKED
- NOTMARKED
- FILTER
- NOTFILTER

The APPLYSUMMARY option is only valid if the DETAIL option is also specified.

If the DETAIL option is specified without the APPLYSUMMARY option the result will be as described under the DETAIL option.

If neither the DETAIL option nor the APPLYSUMMARY option are specified but any combination of some or all of the following record selection options: MARKED, NOTMARKED, FILTER, and NOTFILTER are issued against a summary result set, the record selection options are applied to the summary result set and the selected summary records are retrieved.

BACKWARD
Begins the retrieval process with the last record fetched and continues in a backward direction through the specified result set.

BOTH
Retrieves both the resource table data and the OBJSTAT status information about the last action performed against the resource table. Each record contains OBJSTAT information followed by resource table data.

COUNT*(data-ref)*
Specifies the number of resource table records to be retrieved.

The COUNT option applies to the result set named in the RESULT option, unless you also specify the DETAIL option. When you specify DETAIL, COUNT applies to the source records associated with the summarized result set named in RESULT.

If you do not specify the COUNT option, only one record is retrieved in most cases. However, if you do not specify COUNT when you specify DETAIL, all the source records associated with the current summary resource table record are retrieved.

If you are retrieving multiple records, they are placed one after another in the INTO buffer. The INTO buffer must be long enough to hold all the records being retrieved.

The value that CICSPlex SM returns in this field depends on the RESPONSE value for the FETCH command:

OK The actual number of records returned in the INTO buffer.

WARNING AREATOOSMALL
The number of records returned in the INTO buffer, which is not the total number of records requested.

INVALIDPARM LENGTH
The field is not set because the INTO buffer was not long enough to hold even one resource table record.

DATA
Retrieves only the specified resource table data. The records do not contain any OBJSTAT status information about the last action performed against the resource table.

Note: The OBJSTAT information includes a summary count field that is set when resource table records are summarized using the GROUP command. If you plan to GROUP the resource table records and you want to know how many records are combined to form a summary record, you should specify BOTH to obtain both data and OBJSTAT information when the records are fetched.

DETAIL
Retrieves the source records associated with a specific summary resource table record.

When you specify DETAIL, the result set named on the RESULT option must be a summarized result set. DETAIL expands the summary record by retrieving the resource table records associated with it from the source result set. If you do not specify DETAIL when a summarized result set is being processed, the summary records themselves are retrieved. If the result set is not a summarized result set, this option has no meaning and is ignored.

You can use the FORWARD or BACKWARD option with DETAIL to select which summary record you want to expand. The FORWARD and BACKWARD options also control the direction in which records are retrieved from the source result set.

By default, all the source records associated with the summary record are retrieved. However, you can use the COUNT, FILTER, or NOTFILTER, option to limit the records retrieved from the source result set. You can also use the MARKED or NOTMARKED option to retrieve only those records associated with the summary record that are marked (or not marked) in the source result set.

| You cannot explicitly position the record pointer in the source result set. When
| you specify DETAIL, the POSITION option refers to the record in the summary
| result set.

For more information on processing summarized result sets, see *CICSPlex System Manager Application Programming Guide*. For a description of the GROUP command, which creates summarized result sets, see “GROUP” on page 58.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option indicates that only those resource table records that meet the specified filter criteria should be considered for retrieval. The number of records that are actually retrieved is determined by the COUNT option.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

FORWARD
Begins the retrieval process with the next record (that is, the record that follows the last record fetched) and continues in a forward direction through the specified result set.

INTO*(data-area)*
Identifies a buffer (or stem variable, in REXX) to receive the resource table records. This buffer must be long enough to hold all the records being retrieved.

LENGTH*(data-ref)*
A fullword value that specifies the length of the INTO buffer.

The value that CICSPlex SM returns in this field depends on the RESPONSE value for the FETCH command:

OK The actual length of the data returned in the INTO buffer.

NODATA
The length is set to zero.

WARNING AREATOOSMALL
The buffer length that would be required to hold all the requested records.

INVALIDPARM LENGTH
The field is not set because the INTO buffer was not long enough to hold even one resource table record.

MARKED
Indicates that only those resource table records that are marked in the result set should be considered for retrieval. The number of records that are actually retrieved is determined by the COUNT option.

You can mark resource table records by using the MARK and UNMARK commands.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option indicates that only those resource table records that do not meet the specified filter criteria should be considered for retrieval. The number of records that are actually retrieved is determined by the COUNT option.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Indicates that only those resource table records that are not marked in the result set should be considered for retrieval. The number of records that are actually retrieved is determined by the COUNT option.

You can mark resource table records by using the MARK and UNMARK commands.

POSITION*(data-value)*
Begins the retrieval process with the nth resource table record in the result set.

This value must be a number that identifies the record's relative position in the result set. The first record in a result set is identified by the number 1.

For example, to begin the retrieval process with the fifth resource table record in a result set, you would specify `POSITION(5)`.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- GROUP

- PERFORM OBJECT.

STATUS
Retrieves only the OBJSTAT status information for the last action performed against the resource table. The records do not contain any resource table data.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the FETCH command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria, for one of the following reasons:
BACKWARD
There are no more records that satisfy the search criteria in the backward direction.
FORWARD
There are no more records that satisfy the search criteria in the forward direction.

WARNING
The command completed processing with a warning, for the following reason:
AREATOOSMALL
The INTO buffer is not long enough to hold the number of records requested and available.

BUSY A busy condition occurred for the following reason:
RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.
SOLRESOURCE
A required resource that is locally owned (that is, owned by the address space where the processing thread is running) is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
COUNT
FILTER
INTO
LENGTH
NOTFILTER
POSITION
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:
APITASK
The API control subtask is not active.
CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:
NOTSUPPORTED
The version of the application stub program used for this command is not supported.
NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

GET

Return a result set containing selected resource table records.

```
►►──GET──OBJECT(data-value)──┬─────────────────┬──────────────────────────►
                             └─COUNT(data-ref)─┘

►──┬─────────────────────────────────────────┬────────────────────────────►
   ├─CRITERIA(data-area)──LENGTH(data-value)─┤
   └─FILTER(cpsm-token)──────────────────────┘

►──┬──────────────────────────────────────┬──┬──────────────────────────┬─►
   └─PARM(data-area)──PARMLEN(data-value)─┘  └─NOWAIT──┬─────────────────┬┘
                                                       └─TOKEN(data-value)┘

►──┬─────────────────────┬──┬───────────────────┬──RESULT(cpsm-token)─────►
   └─CONTEXT(data-value)─┘  └─SCOPE(data-value)─┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)───────────────►◄
```

Description

This command returns a result set containing selected resource table records.

- The resource table can be one that represents a CICS resource, a CICSPlex SM or CICS definition, or a CICSPlex SM run-time object.
- After a GET command, the record pointer is positioned to the top of the result set (that is, the first record in the result set).
- If the context and scope in effect when you issue a GET command include CICS systems that do not support the requested resource table, the request is ignored for those CICS systems.
- In some CICS environments, the resource table attribute values that are returned by CICSPlex SM for:

Resource table	Attribute value	CICS Environment
LOCTRAN	RESSEC(RESSECEXT)	CICS/MVS

  do not match the CVDA values returned by CICS. The values returned by CICS conflict with CVDA values in other CICS environments. In order to retain the attributes' uniqueness, CICSPlex SM adds 9000 to the values returned by CICS.

Related commands

DISCARD, FETCH, GETDEF, QUERY, RECEIVE, REFRESH, SPECIFY FILTER, SPECIFY VIEW

Options

CONTEXT*(data-value)*
: Identifies the context for this command. The context must be the 1- to 8-character name of a CMAS or CICSplex.

  If you do not specify the CONTEXT option, the default context for the thread is assumed.

COUNT*(data-ref)*
Names a variable to receive the number of resource table records in the target result set after this operation is complete.

CRITERIA*(data-area)*
Identifies a buffer containing the filter expression to be used for this operation. The CRITERIA option retrieves only those resource table records that meet the specified filter criteria.

For details on how to form a filter expression, see *CICSPlex System Manager Application Programming Guide*.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option retrieves only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

LENGTH*(data-value)*
A fullword value that specifies the length of the CRITERIA buffer.

Note: The buffer length you specify should not include any data other than a filter expression.

NOWAIT
Returns control to your program as soon as the GET command has been accepted, which allows the command to be processed asynchronously.

If you specify the NOWAIT option, you must use a subsequent RECEIVE command to test for the completion of this request. The results of an asynchronous request are returned as ASYNCREQ resource table records. For a complete description of asynchronous processing, see *CICSPlex System Manager Application Programming Guide*.

Note: If you specify the TOKEN option, the NOWAIT option is assumed by default.

OBJECT*(data-value)*
Identifies the resource table for which records are to be retrieved. This value must be the 1- to 8-character name of either a valid resource table or a valid view.

PARM*(data-area)*
Identifies a buffer containing the parameter expression to be used in selecting resource table records.

PARMLEN*(data-value)*
A fullword value that specifies the length of the PARM buffer.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY

- GET
- GROUP
- PERFORM OBJECT.

CICSPlex SM replaces the contents of the existing result set with the resource table records requested by this GET command. If the operation does not result in any resource table records being selected, the target result set is discarded.

If this field is:

- Set to binary zero (in COBOL, C, PL/I or Assembler)
- An uninitialized variable (in REXX).

CICSPlex SM creates a new result set and returns its identifying token in the same field.

SCOPE*(data-value)*
Identifies the scope for this command.

If the current context (as set by this command or a previous CONNECT or QUALIFY command) is a CICSplex and the OBJECT option identifies a CICS resource, a valid scope is required. The scope can be:

- The 1- to 8-character name of the CICSplex itself
- A CICS system or CICS system group within the CICSplex
- A logical scope, as defined in a CICSPlex SM resource description (RESDESC).

If the current context is a CMAS or the OBJECT option identifies any other type of resource table this option has no meaning and is ignored.

If you do not specify the SCOPE option, the default scope for the thread is assumed. If the current context is a CICSplex and no default scope has been set on a CONNECT or QUALIFY command, you receive an INVALIDPARM response for the SCOPE option.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOKEN*(data-value)*
Defines a 1- to 4-character token that you choose to correlate an asynchronous GET request with the result of a subsequent RECEIVE command. This token is for use by your program; CICSPlex SM makes no use of the value. The token is returned by the RECEIVE command when this GET request is complete.

Conditions

The following is a list of the RESPONSE values that can be returned by the GET command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

SCHEDULED
The command has been scheduled for processing.

NODATA
No records were found that matched the specified search criteria.

BUSY A busy condition occurred for the following reason:

RESULT
: The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
: The application stub program could not load the API service module.

NOSTORAGE
: The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

REQTIMEOUT
: One of the CMASs or MASs to which the request was directed did not respond.

SOCRESOURCE
: A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
: Command processing abended.

EXCEPTION
: Command processing encountered an exceptional condition.

INVALIDATA
Invalid data was detected. The parameter that contains invalid data is returned as the reason value:

CRITERIA
: An attribute value listed in the CRITERIA buffer is not valid for the specified attribute.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

CONTEXT
CRITERIA
FILTER
LENGTH
OBJECT
PARM
PARMLEN
RESULT
SCOPE
TOKEN
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
: The API control subtask is not active.

CMAS
: A CMAS to which the request was directed is not available.

CPSMAPI
: The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
The maintenance point for the current context is not available.

SCOPE
Either none of the MASs in the specified scope are available or none of them support the requested resource table.

| **WORKLOAD**
| The workload identified on the API request is not available on the
| local CMAS.

NOTFOUND
A not found condition occurred for the following reason:

ATTRIBUTE
An attribute specified in the CRITERIA buffer was not found for the specified resource table.

NOTPERMIT
A not permitted condition occurred for the following reason:

USRID
The user ID associated with the processing thread does not have the required security authorization.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for the following reason:

DATAERROR
The value associated with one or more resource table attributes is invalid. Use the FEEDBACK command to retrieve additional data about this error.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

GETDEF

Return a result set containing selected descriptive records for a resource table.

```
►►──GETDEF──OBJECT(data-value)──┬──────────────────────────┬──────────────────►
                                └─ATTRIBUTE(data-value)─┘

                                                  ┌─REPLACE─┐
►─RESOURCE(data-value)──┬───────────────────┬──┼─────────┼──RESULT(cpsm-token)────►
                        └─COUNT(data-ref)─┘  └─ADD─────┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)──────────────────────►◄
```

Description

This command returns a result set containing selected descriptive records for a resource table.

- GETDEF is a variation of the GET command. GET retrieves data records for the resource represented by a table. GETDEF, on the other hand, retrieves internal data that describes the resource table itself.
- The GETDEF command retrieves its data, which is called meta-data, from internal resource tables that describe each of the external resource tables These internal resource tables are called CPSM MetaData tables. The attributes of a CPSM MetaData table are the characteristics of the external table, not the resource that it represents. For a list of the CPSM MetaData resource tables that can be retrieved by GETDEF, see the description of the OBJECT option on page "Object" on page 54.
- You can use GETDEF to find out what resource tables are available for processing by other commands. In addition, you can identify the attributes of a resource table, the values allowed for its modifiable attributes, and the actions that can be performed on it. You can also use GETDEF to request descriptions of the CPSM MetaData resource tables themselves.
- You can use the GETDEF command only with resource tables supplied by CICSPlex SM. GETDEF is not valid for user-defined views of a resource table that were created by the SPECIFY VIEW command.
- You cannot use the REFRESH command to refresh the data records retrieved by GETDEF.

Related commands

DISCARD, FETCH, GET, LOCATE, QUERY

Options

ADD
: Adds the CPSM MetaData resource table records that are being retrieved to an existing target result set. If no existing result set is specified as the target, the ADD option is ignored.

ATTRIBUTE*(data-value)*
: Identifies one or more attributes of the resource table specified on the RESOURCE option for which CPSM MetaData records are to be retrieved.

Depending on which CPSM MetaData table is named in the OBJECT option, this value can be the 1- to 12-character name of a specific attribute or an asterisk (*), for all attributes in the resource table. If you do not specify the ATTRIBUTE option for an OBJECT that does not require it, data is retrieved for all attributes in the resource table.

For details on the CPSM MetaData resource tables and the valid ATTRIBUTE values for each, see the description of the OBJECT option.

COUNT*(data-ref)*
Names a variable to receive the number of resource table records in the target result set after this operation is complete.

OBJECT*(data-value)*
Identifies the type of meta-data to be retrieved for the resource table specified on the RESOURCE option. This value must be one of the following CPSM MetaData resource table names:

OBJECT
One record is returned for each instance of the resource table specified on the RESOURCE option. The record describes the resource table's general characteristics. Related options and restrictions include:

- ATTRIBUTE is ignored.
- RESOURCE must be a specific resource table name or * for all resource tables.

OBJACT
One record is returned for each action that is available for the resource table specified on the RESOURCE option.

Related options and restrictions include:

- ATTRIBUTE is ignored.
- RESOURCE must be a specific resource table name; a value of * is not allowed.

METADESC
One record is returned for each attribute of the resource table specified on the RESOURCE option. Each record provides only the basic structure of the attribute, including the name, data type, length, and offset in the resource table. Such information might be useful for accessing the attribute fields in a buffer returned by the FETCH command.

Related options and restrictions include:

- ATTRIBUTE can be a specific attribute name or * for all attributes in the resource table.
- RESOURCE must be a specific resource table name; a value of * is not allowed.

ATTR One record is returned for each attribute of the resource table specified on the RESOURCE option. Each record provides complete information about the attribute.

Related options and restrictions include:

- ATTRIBUTE can be a specific attribute name or * for all attributes in the resource table.
- RESOURCE must be a specific resource table name; a value of * is not allowed.

ATTRAVA
One record is returned for each of the EYUDA or CVDA values that are valid for the specified attribute.

Related options and restrictions include:

- ATTRIBUTE must be the name of a specific attribute that has a data type of EYUDA, CVDAS, or CVDAT.
- RESOURCE must be a specific resource table name; a value of * is not allowed.

Note: The AVAAVAIL attribute of the ATTR internal resource table indicates whether an AVA list is available for a given attribute.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

REPLACE
Deletes the contents of an existing target result set and replaces them with the results of this operation. If the operation does not result in any CPSM MetaData resource table records being selected, the target result set is discarded.

If no existing result set is specified as the target, the REPLACE option is ignored.

RESOURCE*(data-value)*
Identifies the resource table for which CPSM MetaData records are to be retrieved.

If you specify the ATTRIBUTE option, this value must be the 1- to 8-character name of a specific CICSPlex SM resource table. Otherwise, you can specify a value of asterisk (*) to retrieve data for all resource tables.

Note: You can use GETDEF only with resource tables supplied by CICSPlex SM. GETDEF is not valid for user-defined views of a resource table that were created by the SPECIFY VIEW command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GROUP
- PERFORM OBJECT.

CICSPlex SM replaces the contents of the existing result set with the resource table records requested by this GETDEF command. If the operation does not result in any resource table records being selected, the target result set is discarded.

If this field is:

- Set to binary zero (in COBOL, C, PL/I or Assembler)
- An uninitialized variable (in REXX).

CICSPlex SM creates a new result set and returns its identifying token in the same field.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the GETDEF command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
OBJACT was specified with the OBJECT option, but there are no actions defined for the specified RESOURCE.

BUSY A busy condition occurred for the following reason:
RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INCOMPATIBLE
An incompatible condition occurred for the following reason:
INVALIDOBJ
The target result set specified on the RESULT option is not compatible with the output of this command. The result set must contain the same type of meta-data (as specified on the OBJECT option) as the command produces.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
ATTRIBUTE
OBJECT
RESOURCE
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:
APITASK
The API control subtask is not active.
CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for one of the following reasons:
DATAERROR
The value associated with one or more resource table attributes is invalid. Use the FEEDBACK command to retrieve additional data about this error.
INVALIDVER
The specified version of the resource table is not supported by CICSPlex SM.

VERSIONINVL
A version conflict occurred for one of the following reasons:
NOTSUPPORTED
The version of the application stub program used for this command is not supported.
NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

GROUP

Return a summarized result set.

```
►►──GROUP──BY(data-value)──FROM(cpsm-token)──TO(cpsm-token)──────────────────►

   ┌─ALL─────────────────────┐
►──┼─────────────────────────┼──┬──────────────────┬──────────────────────────►
   ├─FILTER(cpsm-token)──────┤  └─COUNT(data-ref)──┘
   ├─MARKED──────────────────┤
   ├─NOTFILTER(cpsm-token)───┤
   └─NOTMARKED───────────────┘

►──┬───────────────────────────────────────┬──THREAD(cpsm-token)──────────────►
   └─SUMOPT(data-area)──LENGTH(data-value)─┘

►──RESPONSE(data-ref)──REASON(data-ref)─────────────────────────────────────►◄
```

Description

This command returns a summarized result set by grouping some or all of the resource table records in a result set.

- The target result set can be an existing result set or a new one that is created by this process. If you specify an existing result set as the target of a GROUP command:
  - It must be a summarized result set that was produced by a previous GROUP command against the same source result set.
  - It must contain the same type of resource table records currently found in the source result set.
  - The existing records in the result set are overwritten.
- To create a summarized result set from selected records of a source result set, you can use:
  - The SPECIFY FILTER command to define a filter for the source result set.
  - The MARK and UNMARK commands to mark records in the source result set.
- The GROUP command may be used only for attributes with a length less than 255. A FAILED EXCEPTION error occurs for attribute lengths of 255 or greater.
- For more information on processing summarized result sets, see *CICSPlex System Manager Application Programming Guide*.

Related commands

DISCARD, FETCH, GET, LOCATE, MARK, ORDER, QUERY, SPECIFY FILTER

Options

ALL
Summarizes all the resource table records in the source result set.

BY*(data-value)*
Identifies the resource table attribute whose value is to be used as the grouping factor for this operation. This value must be the 1- to 12-character name of a valid attribute for the resource table.

COUNT(*data-ref*)
Names a variable to receive the number of resource table records in the target result set after this operation is complete.

FILTER(*cpsm-token*)
Identifies a filter to be used for this operation. The FILTER option summarizes only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

FROM(*cpsm-token*)
Identifies the source result set for this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- PERFORM OBJECT.

Note: If you discard the source result set, all of the summarized result sets that were created from it are also discarded.

LENGTH(*data-value*)
A fullword value that specifies the length of the SUMOPT buffer.

Note: The buffer length you specify should not include any data other than a summary expression.

MARKED
Summarizes only those resource table records that are marked in the source result set. You can mark resource table records by using the MARK and UNMARK commands.

NOTFILTER(*cpsm-token*)
Identifies a filter to be used for this operation. The NOTFILTER option summarizes only those resource table records that do not meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Summarizes only those resource table records that are not marked in the source result set. You can mark resource table records by using the MARK and UNMARK commands.

REASON(*data-ref*)
Names a variable to receive the fullword reason value returned by this command.

RESPONSE(*data-ref*)
Names a variable to receive the fullword response value returned by this command.

SUMOPT(*data-area*)
Identifies a buffer containing the summary expression to be used for this operation. The SUMOPT value overrides the default summary options for the resource table attributes.

For details on how to form a summary expression, see *CICSPlex System Manager Application Programming Guide*. For a list of the default summary options for a given resource table, see the *CICSPlex System Manager Resource Tables Reference*.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TO*(cpsm-token)*
Identifies the target result set for this operation.

If this field is:

- Set to binary zero (in COBOL, C, PL/I or Assembler)
- An uninitialized variable (in REXX).

CICSPlex SM creates a new summarized result set and returns its identifying token in the same field.

Otherwise, you can specify an existing summarized result that was produced by a previous GROUP command against the result set specified in the FROM option. That is, you can reuse a summarized result set, but only to resummarize the records in the same result set.

Note: If you specify the token of a previously produced summarized result set, make sure the result set still exists. When you discard a source result set, all of the summarized result sets that were created from it are also discarded.

Conditions

The following is a list of the RESPONSE values that can be returned by the GROUP command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria.

BUSY A busy condition occurred for one of the following reasons:
FROM The source result set specified on the FROM option is being processed by another command.
TO The target result set specified on the TO option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
: Command processing abended.

EXCEPTION
: Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

BY
FILTER
FROM
LENGTH
NOTFILTER
SUMOPT
THREAD
TO.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
: The API control subtask is not active.

CPSMAPI
: The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
: The version of the application stub program used for this command is not supported.

NOTVSNCONN
: The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

LISTEN

Request a notification be sent to the processing thread.

```
►►──LISTEN──EVENT(data-value)──NOTIFICATION(data-ref)──────────────────────►

►──┬─FILTER(cpsm-token)────┬──┬────────────────────┬──┬──────────────────────┬──►
   └─NOTFILTER(cpsm-token)─┘  └─TOKEN(data-value)─┘  └─CONTEXT(data-value)─┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)────────────────►◄
```

Description

This command requests that a notification be sent to the processing thread when a specific event occurs in the CICSplex.

- An event is represented by a resource table with a type of CPSM Notification.
- The LISTEN command is used in conjunction with the RECEIVE command. If you use LISTEN to request notification of an event, you must use a subsequent RECEIVE command to retrieve information about the event.
- An API processing thread can have a maximum of 256 completed asynchronous requests outstanding at one time. If you do not issue the RECEIVE command at regular intervals and your processing thread reaches its maximum of 256, asynchronous requests are discarded and are not processed. For a complete description of asynchronous processing, see *CICSPlex System Manager Application Programming Guide*.

Related commands

ADDRESS, CANCEL, RECEIVE

Options

CONTEXT*(data-value)*
: Identifies the context for this command. The context must be the 1- to 8-character name of a CMAS or CICSplex.

  If you do not specify the CONTEXT option, the default context for the thread is assumed.

EVENT*(data-value)*
: Identifies the resource table that represents the event to be listened for. This value must be the 1- to 8-character name of a valid CPSM Notification resource table. For a list of the CICSPlex SM resource tables by type, see *CICSPlex System Manager Application Programming Guide*.

FILTER*(cpsm-token)*
: Identifies a filter to be used for this operation. The FILTER option listens for only those events that meet the specified filter criteria.

  Using the FILTER option, you can limit the notifications you receive to events that are associated with a specific CMAS or CICSplex. For example, you could create a filter like this:

```
PLEXNAME=EYUPLX01.
```

and specify that filter on the LISTEN command to be notified only of events generated by CICSplex EYUPLX01.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option listens for only those events that do not meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTIFICATION*(data-ref)*
Names a variable to receive the fullword token that CICSPlex SM assigns to this notification request.

This identifying token must be specified on the CANCEL command when you want to cancel the notification request.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOKEN*(data-value)*
Defines a 1- to 4-character token that you choose to correlate this LISTEN request with the result of a subsequent RECEIVE command. This token is for use by your program; CICSPlex SM makes no use of the value. The token is returned by the RECEIVE command when an event of the specified type occurs.

Conditions

The following is a list of the RESPONSE values that can be returned by the LISTEN command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INCOMPATIBLE
An incompatible condition occurred for the following reason:

INVALIDEVT
The specified event is not compatible with the filter specified on the FILTER or NOTFILTER option.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

CONTEXT
EVENT
FILTER
NOTFILTER
NOTIFICATION
THREAD
TOKEN.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread was trying to connect is not available for API processing.

PLEXMGR
The CMAS to which the processing thread is currently connected does not participate in managing the specified CICSplex and no other CMAS is available that does manage the CICSplex.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

LOCATE

Position the record pointer within a result set.

```
►►──LOCATE──┤ pointer_group ├──RESULT(cpsm-token)──THREAD(cpsm-token)──────────►

►─RESPONSE(data-ref)──REASON(data-ref)─────────────────────────────────────────►◄
```

pointer_group

```
├──┬─┤ POSITION_group ├─┬──────────────────────────────────────────────────────┤
   └─┤ FILTER_group ├───┘
```

POSITION_group

```
   ┌─TOP──────────────────┐
├──┼──────────────────────┼──────────────────────────────────────────────────────┤
   ├─BOTTOM───────────────┤
   ├─POSITION(data-value)─┤
   ├─FORWARD(data-value)──┤
   └─BACKWARD(data-value)─┘
```

FILTER_group

```
                                ┌─FIRST─┐
├──┬─FILTER(cpsm-token)──────┬──┼───────┼──────────────────────────────────────┤
   ├─MARKED──────────────────┤  ├─LAST──┤
   ├─NOTFILTER(cpsm-token)───┤  ├─NEXT──┤
   └─NOTMARKED───────────────┘  └─PREV──┘
```

Description

This command positions the record pointer within a result set.

- API commands that manipulate records or update the data in a result set affect the position of the record pointer:
  - After a GET command, the pointer is positioned to the top of the result set.
  - After a FETCH command, the pointer is positioned to the next record in the result set (that is, the record following the last record fetched in whichever direction the pointer was moving, forward or backward). If no records were fetched (because no records matched the specified criteria), the pointer is positioned to the top or bottom of the result set, depending on which direction it was moving.

  After issuing any other command that manipulates records or updates data, the position of the record pointer depends on a combination of factors, including the options that you specified on the command. To be certain of the pointer's location, you should use the LOCATE command to explicitly position it within the result set.

- The LOCATE command skips over any deleted records in the result set. If you try to position the record pointer to a deleted record, you receive a RESPONSE value of NODATA.

Related commands

COPY, DELETE, FETCH, GETDEF, GROUP, MARK, ORDER, PERFORM OBJECT, PERFORM SET, REFRESH, SET, SPECIFY FILTER, UNMARK

Options

BACKWARD(*data-value*)
: Moves the record pointer backward by the specified number of resource table records.

  If the pointer reaches the top of the result set, it remains positioned on the first resource table record. The pointer does not continue moving backward to the bottom of the result set.

BOTTOM
: Moves the record pointer to the the last resource table record in the result set.

FILTER(*cpsm-token*)
: Identifies a filter to be used for this operation.

  The FILTER option positions the record pointer to a resource table record that meets the specified filter criteria. The FIRST, LAST, NEXT, or PREV option determines where in the result set the search begins and in what direction it continues.

  The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

FIRST
: Begins a search based upon filter or marking criteria with the first resource table record in the result set. The search continues in a forward direction through the result set until a match is found.

FORWARD(*data-value*)
: Moves the record pointer forward by the specified number of resource table records.

  If the pointer reaches the bottom of the result set, it remains positioned on the last resource table record. The pointer does not continue moving forward to the top of the result set.

LAST
: Begins a search based upon filter or marking criteria with the last resource table record in the result set. The search continues in a backward direction through the result set until a match is found.

MARKED
: Positions the record pointer to a resource table record that is marked. The FIRST, LAST, NEXT, or PREV option determines where in the result set the search begins and in what direction it continues.

  You can mark resource table records by using the MARK and UNMARK commands.

NEXT
: Begins a search based upon filter or marking criteria with the current resource

table record in the result set. The search continues in a forward direction through the result set until a match is found.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation.

The NOTFILTER option positions the record pointer to a resource table record that does not meet the specified filter criteria. The FIRST, LAST, NEXT, or PREV option determines where in the result set the search begins and in what direction it continues.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Positions the record pointer to a resource table record that is not marked. The FIRST, LAST, NEXT, or PREV option determines where in the result set the search begins and in what direction it continues.

You can mark resource table records by using the MARK and UNMARK commands.

POSITION*(data-value)*
Moves the record pointer to the nth resource table record in the result set.

This value must be a number that identifies the record's relative position in the result set. The first record in a result set is identified by the number 1.

For example, to move the record pointer to the fifth resource table record in a result set, you would specify `POSITION(5)`.

PREV
Begins a search based upon filter or marking criteria with the previous resource table record in the result set. The search continues in a backward direction through the result set until a match is found.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- GROUP
- PERFORM OBJECT.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOP
Moves the record pointer to the first resource table record in the result set.

Conditions

The following is a list of the RESPONSE values that can be returned by the LOCATE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria, for one of the following reasons:

BACKWARD
There are no more records that satisfy the search criteria in the backward direction.

FORWARD
There are no more records that satisfy the search criteria in the forward direction.

BUSY A busy condition occurred for the following reason:

RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

SOLRESOURCE
A required resource that is locally owned (that is, owned by the address space where the processing thread is running) is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

BACKWARD
FILTER
FORWARD
NOTFILTER
POSITION
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
: A not available condition occurred for one of the following reasons:

  APITASK
  : The API control subtask is not active.

  CPSMAPI
  : The CMAS to which the processing thread was trying to connect is not available for API processing.

SERVERGONE
: The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
: A version conflict occurred for one of the following reasons:

  NOTSUPPORTED
  : The version of the application stub program used for this command is not supported.

  NOTVSNCONN
  : The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

MARK

Mark selected resource table records in a result set.

```
►►──MARK──┤ records_group ├──┬──────────────────┬──────────────────────────────────────►
                             └─COUNT(data-ref)──┘

►──┬───────────────────────────────────────┬──┬─────────┬──RESULT(cpsm-token)──────────►
   └─INTO(data-area)──LENGTH(data-ref)─────┘  └─RESET───┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)──────────────────────────►◄
```

records_group

```
   ┌─CURRENT──────────────────────────────────┐
├──┼──────────────────────────────────────────┼──────────────────────────────────────┤
   ├─ALL──────────────────────────────────────┤
   ├─FILTER(cpsm-token)───────────────────────┤
   ├─NOTFILTER(cpsm-token)────────────────────┤
   ├─POSITION(data-value)─────────────────────┤
   └─PARM(data-area)──PARMLEN(data-value)─────┘
```

Description

This command marks selected resource table records in a result set.

- The MARK command always begins processing with the last record that was fetched, rather than the next one in the result set.
- Any resource table records that you marked in the result set previously remain marked unless you use the RESET option.

Related commands

COPY, DELETE, FETCH, GROUP, LOCATE, PERFORM SET, REFRESH, SET, SPECIFY FILTER, UNMARK

Options

ALL
Marks all the resource table records in the result set. When you specify ALL, the RESET option is ignored.

COUNT*(data-ref)*
Names a variable to receive the number of resource table records that could not be marked.

CURRENT
Marks only the current resource table record.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option marks only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

INTO_(data-area)_
Identifies a buffer to receive a list of resource table records that could not be marked.

This buffer must be long enough to hold the maximum number of record numbers that could result from your MARK request (in the event that none of them can be marked). Record numbers are listed individually (not by range) in the INTO buffer and are separated by commas.

Note: If you receive a RESPONSE value of WARNING AREATOOSMALL (because the buffer was not long enough), the data returned in this buffer represents a partial list of the records that could not be marked.

LENGTH_(data-ref)_
A fullword value that specifies the length of the INTO buffer.

The value that CICSPlex SM returns in this field depends on the RESPONSE value for the MARK command:

OK The actual length of the data returned in the INTO buffer.

WARNING AREATOOSMALL
The buffer length that would be required to hold a complete list of records that could not be marked.

NOTFILTER_(cpsm-token)_
Identifies a filter to be used for this operation. The NOTFILTER option marks only those resource table records that do not meet the specified filter criteria.

The _cpsm-token_ value that identifies a filter is returned by the SPECIFY FILTER command.

PARM_(data-area)_
Identifies a buffer containing the parameter expression that lists the resource table records to be marked.

The parameter expression for the MARK command is a character string of record numbers. For example:

```
PARM('1,3,6:9,24.')
```

To specify individual records, separate the record numbers with a comma. To specify a range of records, separate the low and high record numbers with a colon. The whole parameter expression must end with a period.

For details on how to use a parameter expression with the MARK command, see _CICSPlex System Manager Application Programming Guide_.

PARMLEN_(data-value)_
A fullword value that specifies the length of the PARM buffer.

POSITION_(data-value)_
Marks the nth resource table record in the result set.

This value must be a number that identifies the record’s relative position in the result set. The first record in a result set is identified by the number 1.

For example, to mark the fifth resource table record in a result set, you would specify `POSITION(5)`.

REASON_(data-ref)_
Names a variable to receive the fullword reason value returned by this command.

RESET
Removes any marks previously placed on resource table records in the result set and marks only those records you identify in the current MARK request.

If you do not use the RESET option, any records that you marked previously remain marked. That is, the records identified in the current MARK request are marked in addition to any previously marked records.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- GROUP
- PERFORM OBJECT.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the MARK command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria.

WARNING
The command completed processing with a warning, for one of the following reasons:
AREATOOSMALL
You specified the INTO and LENGTH options, but the buffer was not long enough to hold the string of records that could not be marked.
DATAERROR
One or more of the records specified in the PARM buffer could not be found to be marked. If you specified the COUNT option, the number of records that could not be marked is returned. If you specified the INTO and LENGTH options, a list of the records is returned in the buffer.

BUSY A busy condition occurred for the following reason:
RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
: The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
: A required resource that is owned by the CMAS is not available.

SOLRESOURCE
: A required resource that is locally owned (that is, owned by the address space where the processing thread is running) is not available.

FAILED

The command failed for one of the following reasons:

ABENDED
: Command processing abended.

EXCEPTION
: Command processing encountered an exceptional condition.

INVALIDPARM

An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

COUNT
FILTER
INTO
LENGTH
NOTFILTER
PARM
PARMLEN
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE

A not available condition occurred for one of the following reasons:

APITASK
: The API control subtask is not active.

CPSMAPI
: The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE

The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL

A version conflict occurred for one of the following reasons:

NOTSUPPORTED
: The version of the application stub program used for this command is not supported.

NOTVSNCONN
: The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

ORDER

Sort the resource table records in a result set.

```
►►──ORDER──BY(data-area)──LENGTH(data-value)──RESULT(cpsm-token)──────────────►

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)────────────────────►◄
```

Description

This command sorts the resource table records in a result set into a user-specified order.

- By default, records are sorted by the key attributes for the resource table.
- The sort order you specify for a result set remains in effect until you issue another ORDER command.
- If the result set contains deleted records, those records are included in the sorting process. They are sorted by the same attributes as other records and their position in the newly ordered result set may be difficult to determine. To prevent this happening, issue the REFRESH command before issuing ORDER; REFRESH removes any deleted records from the result set.

Related commands

COPY, GET, GETDEF, GROUP, LOCATE, PERFORM OBJECT

Options

BY*(data-area)*
Identifies a buffer containing the order expression to be used for this operation.

An order expression is a list of attributes to be used in sorting the resource table records. For example:

```
CICSSYS,TRANID.
```

where the attribute names are separated by commas or blank spaces and the whole expression ends with a period.

In this example, the resource table records are sorted using CICS system name as the primary sort key and transaction ID as the secondary key. The default sort order is ascending. To sort attribute values in descending order, add /D to the end of the attribute name.

For more information on using order expressions with the ORDER command, see *CICSPlex System Manager Application Programming Guide*.

Note: You cannot specify the EYU_CICSNAME or EYU_CICSREL attributes in an order expression.

LENGTH*(data-value)*
A fullword value that specifies the length of the BY buffer.

Note: The buffer length you specify should not include any data other than an order expression.

REASON(*data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- GROUP
- PERFORM OBJECT.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the ORDER command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

BUSY A busy condition occurred for the following reason:

RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

BY
LENGTH
RESULT

THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

PERFORM OBJECT

Perform an action on one or more resources.

```
►►──PERFORM──OBJECT(data-value)──ACTION(data-value)──┬──────────────────┬──────────►
                                                     └─COUNT(data-ref)──┘

►──┬──CRITERIA(data-area)──LENGTH(data-value)──┬──┬─────────────┬──────────────────►
   └──FILTER(cpsm-token)───────────────────────┘  └─NOREFRESH───┘

►──┬──────────────────────────────────┬──┬─────────────────────────────────────┬───►
   └─NOWAIT──┬──────────────────────┬─┘  └─PARM(data-area)──PARMLEN(data-value)─┘
             └─TOKEN(data-value)────┘

►──┬──────────────────────┬──┬────────────────────┬──RESULT(cpsm-token)───────────►
   └─CONTEXT(data-value)──┘  └─SCOPE(data-value)──┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)────────────────────────►◄
```

Description

This command performs an action on one or more resources.

- The resources to be acted upon by PERFORM OBJECT do not have to exist as records in a result set; a result set is implicitly created by this process.
- If the context and scope in effect when you issue a PERFORM OBJECT command include CICS systems that do not support the requested action, the request is ignored for those CICS systems.
- The PERFORM OBJECT command contains two phases; the first is to build the result set, and the second is to take the requested action against the records in the result set. If an error occurs during the building of the result set, but the result set is not empty, the requested action will still be attempted on the records that are present in the result set.

Related commands

DISCARD, GET, LOCATE, PERFORM SET, QUERY, SET, SPECIFY FILTER

Options

ACTION*(data-value)*
Identifies the action to be performed. This value must be the 1- to 12-character name of a valid action for the resource table.

For a description of the actions that are valid for a given resource table, see the *CICSPlex System Manager Resource Tables Reference*.

CONTEXT*(data-value)*
Identifies the context for this command. The context must be the 1- to 8-character name of a CMAS or CICSplex.

If you do not specify the CONTEXT option, the default context for the thread is assumed.

COUNT(*data-ref*)
Names a variable to receive the number of resource table records in the target result set after this operation is complete.

CRITERIA(*data-area*)
Identifies a buffer containing the filter expression to be used for this operation. The CRITERIA option retrieves only those resource table records that meet the specified filter criteria.

For details on how to form a filter expression, see *CICSPlex System Manager Application Programming Guide*.

FILTER(*cpsm-token*)
Identifies a filter to be used for this operation. The FILTER option retrieves only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

LENGTH(*data-value*)
A fullword value that specifies the length of the CRITERIA buffer.

Note: The buffer length you specify should not include any data other than a filter expression.

NOREFRESH
Specifies that the resource table records in the result set created by PERFORM OBJECT should not be refreshed. The records reflect the status of the resources when the result set was created.

If you do not specify the NOREFRESH option, the resource table records are refreshed to reflect the resource status after this operation is complete.

NOWAIT
Returns control to your program as soon as the PERFORM OBJECT command has been accepted, which allows the command to be processed asynchronously.

If you specify the NOWAIT option, you must use a subsequent RECEIVE command to test for the completion of this request. The results of an asynchronous request are returned as ASYNCREQ resource table records. For a complete description of asynchronous processing, see *CICSPlex System Manager Application Programming Guide*.

Note: If you specify the TOKEN option, the NOWAIT option is assumed by default.

OBJECT(*data-value*)
Identifies the resource table against which the action is to be performed. This value must be the 8-character name of a valid resource table.

PARM(*data-area*)
Identifies a buffer containing the parameter expression to be used in performing the action.

For details on how to use a parameter expression with the PERFORM OBJECT command, see *CICSPlex System Manager Application Programming Guide*. For a description of the parameters that are required for a given resource table action, see the *CICSPlex System Manager Resource Tables Reference*.

PARMLEN*(data-value)*
A fullword value that specifies the length of the PARM buffer.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GROUP
- PERFORM OBJECT.

CICSPlex SM replaces the contents of the existing result set with the resource table records requested by this PERFORM OBJECT command.

If this field is:

- Set to binary zero (in COBOL, C, PL/I or Assembler)
- An uninitialized variable (in REXX).

CICSPlex SM creates a new result set and returns its identifying token in the same field.

SCOPE*(data-value)*
Identifies the scope for this command.

To use the SCOPE option, the current context (as set by this command or a previous CONNECT or QUALIFY command) must be a CICSplex. The scope can be:

- The 1- to 8-character name of the CICSplex itself
- A CICS system or CICS system group within the CICSplex
- A logical scope, as defined in a CICSPlex SM resource description (RESDESC).

If the current context is a CMAS, this option has no meaning and is ignored.

If you do not specify the SCOPE option, the default scope for the thread is assumed.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOKEN*(data-value)*
Defines a 1- to 4-character token that you choose to correlate an asynchronous PERFORM OBJECT request with the result of a subsequent RECEIVE command. This token is for use by your program; CICSPlex SM makes no use of the value. The token is returned by the RECEIVE command when this PERFORM OBJECT request is complete.

Conditions

The following is a list of the RESPONSE values that can be returned by the PERFORM OBJECT command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

SCHEDULED
The command has been scheduled for processing.

NODATA
No records were found that matched the specified search criteria.

BUSY A busy condition occurred for the following reason:

- **RESULT**
  The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:

- **NOSERVICE**
  The application stub program could not load the API service module.
- **NOSTORAGE**
  The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
- **REQTIMEOUT**
  One of the CMASs or MASs to which the request was directed did not respond.
- **SOCRESOURCE**
  A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

- **ABENDED**
  Command processing abended.
- **EXCEPTION**
  Command processing encountered an exceptional condition.

INVALIDATA
Invalid data was detected. The parameter that contains invalid data is returned as the reason value:

- **PARM** An attribute value listed in the PARM buffer is not valid for the specified attribute.
- **CRITERIA**
  An attribute value listed in the CRITERIA buffer is not valid for the specified attribute.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

ACTION
CONTEXT
CRITERIA
FILTER
LENGTH
OBJECT
PARM

PARMLEN
RESULT
SCOPE
THREAD
TOKEN.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CMAS A CMAS to which the request was directed is not available.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
The maintenance point for the current context is not available.

PLEXMGR
The CMAS to which the processing thread is currently connected does not participate in managing the specified CICSplex and no other CMAS is available that does manage the CICSplex.

SCOPE
Either none of the MASs in the specified scope are available or none of them support the requested action.

| **WORKLOAD**
| The workload identified on the API request is not available on the
| local CMAS.

NOTFOUND
A not found condition occurred for one of the following reasons:

ACTION
The action specified on the ACTION option was not found for the specified resource table.

ATTRIBUTE
An attribute specified in the CRITERIA or PARM buffer was not found for the specified resource table.

NOTPERMIT
A not permitted condition occurred for the following reason:

USRID
The user ID associated with the processing thread does not have the required security authorization.

TABLEERROR
A resource table record is invalid for the following reason:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if the resource table is missing required fields, contains one or more conflicting fields, or is a duplicate. For BAS this error can also occur if you do not have the required security authorization. Use the FEEDBACK command to retrieve additional data about this error.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

WARNING
The PERFORM OBJECT command may have only partially completed for one of the following reasons:

RESULT
During the building of the result set to be used on the command, a non-OK response was received. However some result set records were available and the requested action was successfully performed against them. Use the FEEDBACK command without the RESULT option to obtain information about the non-OK response.

ACTION
During the building of the result set to be used on the command, a non-OK response was received. However some result set records were available and the requested action was attempted. The action specified did not complete successfully on, at least one result set record due to a TABLEERROR or DATAERROR CICSPlex SM response or reason.

Use the FEEDBACK command without the RESULT option to obtain information about the error that occurred during the building of the result set. Use the FEEDBACK command with the RESULT option to obtain information about records that caused the TABLEERROR or DATAERROR response or reason.

WORKLOAD
The workload identified on the API request is not available on the local CMAS.

PERFORM SET

Performs an action on one or more resources.

```
                                        ┌─ALL──────────────────────┐
►►──PERFORM──SET──ACTION(data-value)────┼──────────────────────────┼──┬───────────┬──────►
                                        ├─CURRENT──────────────────┤  └─NOREFRESH─┘
                                        ├─FILTER(cpsm-token)───────┤
                                        ├─MARKED───────────────────┤
                                        ├─NOTFILTER(cpsm-token)────┤
                                        ├─NOTMARKED────────────────┤
                                        └─POSITION(data-value)─────┘

►──┬───────────────────────────────┬──┬─────────────────────────────────────────┬──────►
   └─NOWAIT──┬───────────────────┬─┘  └─PARM(data-area)──PARMLEN(data-value)────┘
             └─TOKEN(data-value)─┘

►─RESULT(cpsm-token)──THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)─────►◄
```

Description

This command performs an action on one or more resources as represented by resource table records in an existing result set. If the context and scope in effect when you issue a PERFORM SET command include CICS systems that do not support the requested action, the request is ignored for those CICS systems.

Related commands

LOCATE, MARK, PERFORM OBJECT, SET, SPECIFY FILTER

Options

ACTION(*data-value)*
Identifies the action to be performed. This value must be the 1- to 12-character name of a valid action for the resource table.

For a description of the actions that are valid for a given resource table, see the *CICSPlex System Manager Resource Tables Reference*.

ALL
Performs the specified action against all the resource table records in the result set.

CURRENT
Performs the specified action against only the current resource table record.

FILTER(*cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option performs the action against only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

MARKED
Performs the specified action against only those resource table records that are marked in the result set. You can mark resource table records by using the MARK and UNMARK commands.

NOREFRESH
Specifies that the resource table records in the source result set should not be refreshed. The records reflect the status of the resources before the PERFORM SET command was processed.

If you do not specify the NOREFRESH option, the resource table records are refreshed to reflect the resource status after this operation is complete.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option performs the action against only those resource table records that do not meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Performs the specified action against only those resource table records that are not marked in the result set. You can mark resource table records by using the MARK and UNMARK commands.

NOWAIT
Returns control to your program as soon as the PERFORM SET command has been accepted, which allows the command to be processed asynchronously.

If you specify the NOWAIT option, you must use a subsequent RECEIVE command to test for the completion of this request. The results of an asynchronous request are returned as ASYNCREQ resource table records. For a complete description of asynchronous processing, see *CICSPlex System Manager Application Programming Guide*.

Note: If you specify the TOKEN option, the NOWAIT option is assumed by default.

PARM*(data-area)*
Identifies a buffer containing the parameter expression to be used in performing the action.

For details on how to use a parameter expression with the PERFORM SET command, see *CICSPlex System Manager Application Programming Guide*. For a description of the parameters that are required for a given resource table action, see the *CICSPlex System Manager Resource Tables Reference*.

PARMLEN*(data-value)*
A fullword value that specifies the length of the PARM buffer.

POSITION*(data-value)*
Performs the specified action against the nth resource table record in the result set.

This value must be a number that identifies the record's relative position in the result set. The first record in a result set is identified by the number 1.

For example, to perform the specified action on the fifth resource table record in a result set, you would specify `POSITION(5)`.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:
- COPY
- GET
- GROUP
- PERFORM OBJECT.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOKEN*(data-value)*
Defines a 1- to 4-character token that you choose to correlate an asynchronous PERFORM SET request with the result of a subsequent RECEIVE command. This token is for use by your program; CICSPlex SM makes no use of the value. The token is returned by the RECEIVE command when this PERFORM SET request is complete.

Conditions

The following is a list of the RESPONSE values that can be returned by the PERFORM SET command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

SCHEDULED
The command has been scheduled for processing.

NODATA
No records were found that matched the specified search criteria. If the ALL option was specified, the following reason may be returned:
FORWARD
There are no more records that satisfy the search criteria in the forward direction.

BUSY A busy condition occurred for the following reason:
RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
REQTIMEOUT
One of the CMASs or MASs to which the request was directed did not respond.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDATA
Invalid data was detected. The parameter that contains invalid data is returned as the reason value:

PARM An attribute value listed in the PARM buffer is not valid for the specified attribute.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

ACTION
FILTER
NOTFILTER
PARM
PARMLEN
POSITION
RESULT
THREAD
TOKEN.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CMAS A CMAS to which the request was directed is not available.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
The maintenance point for the current context is not available.

PLEXMGR
The CMAS to which the processing thread is currently connected does not participate in managing the specified CICSplex and no other CMAS is available that does manage the CICSplex.

SCOPE
Either none of the MASs in the specified scope are available or none of them support the requested action.

| **WORKLOAD**
| The workload identified on the API request is not available on the
| local CMAS.

NOTFOUND
A not found condition occurred for one of the following reasons:

ACTION
The action specified on the ACTION option was not found for the specified resource table.

ATTRIBUTE
An attribute specified in the CRITERIA or PARM buffer was not found for the specified resource table.

NOTPERMIT
A not permitted condition occurred for the following reason:

USRID
The user ID associated with the processing thread does not have the required security authorization.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for the following reason:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if the resource table is missing required fields, contains one or more conflicting fields, or is a duplicate. For BAS this error can also occur if you do not have the required security authorization. Use the FEEDBACK command to retrieve additional data about this error.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

QUALIFY

Define the CICSPlex SM context and scope.

```
►►──QUALIFY──CONTEXT(data-value)──┬─────────────────────┬──THREAD(cpsm-token)──────►
                                  └─SCOPE(data-value)─┘

►─RESPONSE(data-ref)──REASON(data-ref)──────────────────────────────────────────►◄
```

Related commands

CONNECT

Description

This command defines the CICSPlex SM context and scope for subsequent commands issued by an API processing thread.

Options

CONTEXT*(data-value)*
: Identifies the context for subsequent commands issued against this thread. The context must be the 1- to 8-character name of a CMAS or CICSplex.

  The specified context remains in effect for the thread until you override it or change it on a subsequent command.

REASON*(data-ref)*
: Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
: Names a variable to receive the fullword response value returned by this command.

SCOPE*(data-value)*
: Identifies the scope for subsequent commands issued against this thread.

  The SCOPE option qualifies the CONTEXT option. When the context is a CICSplex, the scope can be:
  - The 1- to 8-character name of the CICSplex itself
  - A CICS system or CICS system group within the CICSplex
  - A logical scope, as defined in a CICSPlex SM resource description (RESDESC).

  When the context is a CMAS, this option has no meaning and is ignored.

  The specified scope remains in effect for the thread unless you override it for a specific command or change it by issuing another QUALIFY command. If you do not specify the SCOPE option, no scope value is assumed (that is, the default scope established for the thread by the CONNECT command is not retained).

  Note: Certain API commands require a valid scope when the context is a CICSplex. If you do not specify a scope on the QUALIFY command, then you must specify the SCOPE option when you issue any of these commands for a resource table that represents a CICS resource:

- GET
- PERFORM OBJECT
- PERFORM SET
- REFRESH
- SET.

THREAD_(cpsm-token)_
Identifies the API thread to be used for this operation. The _cpsm-token_ value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the QUALIFY command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
CONTEXT
SCOPE
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:
APITASK
The API control subtask is not active.
CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.
PLEXMGR
The CMAS to which the processing thread is currently connected does not participate in managing the specified CICSplex and no other CMAS is available that does manage the CICSplex.

SERVERGONE
: The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
: A version conflict occurred for one of the following reasons:

  NOTSUPPORTED
  : The version of the application stub program used for this command is not supported.

  NOTVSNCONN
  : The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

QUERY

Retrieve information about a result set and the resource table records it contains.

```
►►──QUERY──RESULT(cpsm-token)──┬────────────────┬──┬─────────────────────┬──────►
                               └─COUNT(data-ref)─┘  └─DATALENGTH(data-ref)─┘

►──┬─────────────────┬──┬───────────────┬──┬──────────────────┬──────────────────►
   └─OBJECT(data-ref)─┘  └─TYPE(data-ref)─┘  └─CONTEXT(data-ref)─┘

►──┬────────────────┬──THREAD(cpsm-token)──RESPONSE(data-ref)────────────────────►
   └─SCOPE(data-ref)─┘

►─REASON(data-ref)───────────────────────────────────────────────────────────────►◄
```

Description

This command retrieves information about a result set and the resource table records it contains.

- You can use the QUERY command to determine:
  - The context and scope of the result set
  - The type of resource table records the result set contains
  - Whether the records are from the CICSPlex SM resource table or a user-defined view of that table
  - The number of resource table records in the result set
  - The length of the resource table records
- For programs written in REXX, issuing the QUERY command is the only way to determine the length of a given resource table record.

Related commands

COPY, GET, GETDEF, GROUP, PERFORM OBJECT

Options

CONTEXT*(data-ref)*
: Names a variable to receive the context associated with the result set.

COUNT*(data-ref)*
: Names a variable to receive the number of resource table records in the result set.

DATALENGTH*(data-ref)*
: Names a variable to receive the length of the resource table records in the result set.

OBJECT*(data-ref)*
: Names a variable to receive the name of the resource table currently associated with the result set.

REASON*(data-ref)*
: Names a variable to receive the fullword reason value returned by this command.

RESPONSE(*data-ref*)
Names a variable to receive the fullword response value returned by this command.

RESULT(*cpsm-token*)
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- GROUP
- PERFORM OBJECT.

| **SCOPE**(*data-ref*)
| Names a variable to receive the scope associated with the result set. This value
| may be blank for result sets containing CMAS type resources.

THREAD(*cpsm-token*)
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TYPE(*data-ref*)
Names a variable to receive a 1-character value that indicates what type of records are in the result set:

T Resource tables supplied by CICSPlex SM.

V Views of a resource table created by a SPECIFY VIEW command issued previously on this processing thread.

Conditions

The following is a list of the RESPONSE values that can be returned by the QUERY command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

BUSY A busy condition occurred for the following reason:
RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
CONTEXT
DATALENGTH
OBJECT
RESULT
THREAD
TYPE.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

RECEIVE

Receive the output from completed asynchronous requests.

```
►►──RECEIVE──INTO(data-area)──LENGTH(data-ref)──OBJECT(data-ref)──────────────►

                            ┌─WAIT──────────────┐
►──┬──────────────────┬─────┼───────────────────┼──THREAD(cpsm-token)─────────►
   └─TOKEN(data-ref)──┘     ├─DELAY(data-value)─┤
                            └─IMMEDIATE─────────┘

►──RESPONSE(data-ref)──REASON(data-ref)──────────────────────────────────────►◄
```

Description

This command receives the output from completed asynchronous requests associated with the processing thread.

- Asynchronous output can result if you previously issued either a LISTEN command or one of these commands with the NOWAIT option:
  - GET
  - PERFORM OBJECT
  - PERFORM SET
  - REFRESH
  - SET.
- To determine if there is any asynchronous output to be received, issue the ADDRESS command and check the SENTINEL value before you issue the RECEIVE command.
- An API processing thread can have a maximum of 256 completed asynchronous requests outstanding at one time. If you do not issue the RECEIVE command at regular intervals and your processing thread reaches its maximum of 256, asynchronous requests are discarded and are not processed. For a complete description of asynchronous processing, see *CICSPlex System Manager Application Programming Guide*.

Related commands

ADDRESS, GET, LISTEN, PERFORM OBJECT, PERFORM SET, REFRESH, SET

Options

DELAY*(data-value)*
Specifies the number of seconds that processing will wait if no output is available when the RECEIVE command is issued. At the end of the specified number of seconds, control returns to the processing thread, whether or not any output becomes available. If output becomes available during the delay period, control returns to the processing thread. If output is immediately available, there is no delay; control returns immediately to the processing thread.

Note: If you specify a value of 0, control returns to the processing thread immediately. However, the DELAY option incurs additional API processing overhead, so it is recommended that you use the IMMEDIATE option instead.

IMMEDIATE
Returns control to the processing thread immediately, whether or not any output is available.

INTO*(data-area)*
Identifies a buffer to receive asynchronous output, if any is available for this thread. This buffer must be long enough to hold all the output being received.

The output returned can be:

- A resource table record representing an event named in a previous LISTEN command
- An ASYNCREQ resource table record representing completion of an asynchronous GET, PERFORM, REFRESH, or SET request.

LENGTH*(data-ref)*
A fullword value that specifies the length of the INTO buffer.

After the operation is complete, this field is set to the actual length of the data returned in the INTO buffer. If the operation cannot complete because the buffer is not long enough, this field is set to the length that is required.

OBJECT*(data-ref)*
Names a variable to receive a resource table name, if output is available for this thread.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

WAIT
Waits until asynchronous output becomes available before returning control to the processing thread.

Note: The WAIT option waits indefinitely for asynchronous output. Be sure to verify that there are completed asynchronous requests outstanding by issuing the ADDRESS command before you issue RECEIVE.

TOKEN*(data-ref)*
Names a variable to receive the user-defined token associated with the asynchronous output. This value is the token you defined on the GET, LISTEN, PERFORM, REFRESH or SET command that produced the output.

Conditions

The following is a list of the RESPONSE values that can be returned by the RECEIVE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
There was no data to receive.

WARNING
: The command completed processing with a warning, for the following reason:

  AREATOOSMALL
  : The INTO buffer is not long enough to hold the number of records requested and available.

ENVIRONERROR
: An environment error occurred for one of the following reasons:

  NOSERVICE
  : The application stub program could not load the API service module.

  NOSTORAGE
  : The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

  SOCRESOURCE
  : A required resource that is owned by the CMAS is not available.

FAILED
: The command failed for one of the following reasons:

  ABENDED
  : Command processing abended.

  EXCEPTION
  : Command processing encountered an exceptional condition.

INVALIDPARM
: An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

  DELAY
  INTO
  LENGTH
  OBJECT
  THREAD
  TOKEN.

  Check the command description for valid parameter syntax.

NOTAVAILABLE
: A not available condition occurred for one of the following reasons:

  APITASK
  : The API control subtask is not active.

  CPSMAPI
  : The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
: The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
: A version conflict occurred for one of the following reasons:

  NOTSUPPORTED
  : The version of the application stub program used for this command is not supported.

  NOTVSNCONN
  : The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

REFRESH

Refreshes the data for resource table records.

```
►►──REFRESH──┬──────────────────────────┬──┬─────────────────────────────────────┬──────────►
             ├─ALL──────────────────────┤  │                      ┌─FORWARD──┐   │
             ├─CURRENT──────────────────┤  └─COUNT(data-value)────┼──────────┼───┘
             ├─FILTER(cpsm-token)───────┤                         └─BACKWARD─┘
             ├─MARKED───────────────────┤
             ├─NOTFILTER(cpsm-token)────┤
             └─NOTMARKED────────────────┘

►──┬──────────────────────────────────┬──RESULT(cpsm-token)──THREAD(cpsm-token)──────────►
   └─NOWAIT──┬─────────────────────┬──┘
             └─TOKEN(data-value)───┘

►──RESPONSE(data-ref)──REASON(data-ref)──────────────────────────────────────────────────►◄
```

Description

- This command refreshes the data for some or all of the resource table records in a result set.
- For the MAS resource table, REFRESH provides data only if the MAS was active when the result set was last built.

Related commands

COPY, GET, LOCATE, MARK, PERFORM OBJECT, SPECIFY FILTER

Options

ALL
Refreshes all the resource table records in the result set. When you specify ALL:

- The COUNT option is ignored.
- Any records that have been deleted are removed from the result set. Any positions previously held by deleted records are filled in and the remaining records are renumbered. Therefore, the relative position of a given record in a result set may be different after a refresh.

BACKWARD
Refreshes the previous resource table record and continues in a backward direction through the result set refreshing as many records as the COUNT option specifies.

Note: If the record pointer is at the bottom of the result set, using BACKWARD refreshes the current record (which is the last record) and then continues on to previous records.

COUNT*(data-value)*
Specifies the number of resource table records to be refreshed. If you do not specify the COUNT option, only one record is refreshed.

If you do not specify the FORWARD or BACKWARD option, the refresh process moves in a forward direction through the result set.

CURRENT
Refreshes only the current resource table record. When you specify CURRENT, the COUNT option is ignored.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option indicates that only those resource table records that meet the specified filter criteria should be considered for refresh.

The number of records that are actually refreshed is determined by the COUNT option. If you do not specify the COUNT option, only the first record that meets the filter criteria is refreshed.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

FORWARD
Refreshes the current resource table record and continues in a forward direction through the result set refreshing as many records as the COUNT option specifies.

MARKED
Indicates that only those resource table records that are marked in the result set should be considered for refresh.

The number of records that are actually refreshed is determined by the COUNT option. If you do not specify the COUNT option, only the first record that is marked is refreshed.

You can mark resource table records by using the MARK and UNMARK commands.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option indicates that only those resource table records that do not meet the specified filter criteria should be considered for refresh.

The number of records that are actually refreshed is determined by the COUNT option. If you do not specify the COUNT option, only the first record that does not meet the filter criteria is refreshed.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Indicates that only those resource table records that are not marked in the result set should be considered for refresh.

The number of records that are actually refreshed is determined by the COUNT option. If you do not specify the COUNT option, only the first record that is not marked is refreshed.

You can mark resource table records by using the MARK and UNMARK commands.

NOWAIT
Returns control to your program as soon as the REFRESH command has been accepted, which allows the command to be processed asynchronously.

If you specify the NOWAIT option, you must use a subsequent RECEIVE command to test for the completion of this request. The results of an asynchronous request are returned as ASYNCREQ resource table records. For a complete description of asynchronous processing, see *CICSPlex System Manager Application Programming Guide*.

Note: If you specify the TOKEN option, the NOWAIT option is assumed by default.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- PERFORM OBJECT.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOKEN*(data-value)*
Defines a 1- to 4-character token that you choose to correlate an asynchronous REFRESH request with the result of a subsequent RECEIVE command. This token is for use by your program; CICSPlex SM makes no use of the value. The token is returned by the RECEIVE command when this REFRESH request is complete.

Conditions

The following is a list of the RESPONSE values that can be returned by the REFRESH command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

SCHEDULED
The command has been scheduled for processing.

BUSY A busy condition occurred for the following reason:
RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
REQTIMEOUT
One of the CMASs or MASs to which the request was directed did not respond.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

COUNT
FILTER
NOTFILTER
RESULT
THREAD
TOKEN.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CMAS A CMAS to which the request was directed is not available.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
The maintenance point for the current context is not available.

SCOPE
None of the MASs in the specified scope are available.

NOTPERMIT
A not permitted condition occurred for the following reason:

USRID
The user ID associated with the processing thread does not have the required security authorization.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for the following reason:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if the resource table is missing required attributes, contains one or more conflicting attributes, or does not exist. Use the FEEDBACK command to retrieve additional data about this error.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

REMOVE

Remove a CICSPlex SM or CICS definition from the data repository.

```
►►──REMOVE──OBJECT(data-value)──FROM(data-area)──LENGTH(data-value)──────────►

►─┬────────────────────────────────────────┬─┬───────────────────────┬───────►
  └─PARM(data-area)──PARMLEN(data-value)───┘ └─CONTEXT(data-value)───┘

►─THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)─────────────────►◄
```

Description

This commands removes a CICSPlex SM or CICS definition from the data repository. For definitions that have a CICSplex as their context (such as workload management or real-time analysis definitions), the definition is also removed from the data repositories of all CMASs involved in managing the CICSplex.

Related commands

CREATE, UPDATE

Options

CONTEXT*(data-value)*
Identifies the context for this command. The context must be the 1- to 8-character name of a CMAS or CICSplex.

If you do not specify the CONTEXT option, the default context for the thread is assumed.

FROM*(data-area)*
Identifies a buffer containing a resource table record that represents the definition to be removed. The record must include all of the attributes for the resource table specified on the OBJECT option.

LENGTH*(data-value)*
A fullword value that specifies the length of the FROM buffer.

OBJECT*(data-value)*
Identifies the resource table that represents the definition being removed. This value must be the 1- to 8-character name of a valid CPSM Definition or CICS Definition resource table. For a list of the CICSPlex SM resource tables by type, see *CICSPlex System Manager Application Programming Guide*.

PARM*(data-area)*
Identifies a buffer containing the parameter expression to be used in removing the definition.

For details on how to use a parameter expression with the REMOVE command, see *CICSPlex System Manager Application Programming Guide*. For a description of the parameters that are valid for a given resource table, see the *CICSPlex System Manager Resource Tables Reference*.

PARMLEN*(data-value)*
A fullword value that specifies the length of the PARM buffer.

REASON_(data-ref)_
Names a variable to receive the fullword reason value returned by this command.

RESPONSE_(data-ref)_
Names a variable to receive the fullword response value returned by this command.

THREAD_(cpsm-token)_
Identifies the API thread to be used for this operation. The _cpsm-token_ value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the REMOVE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

REQTIMEOUT
One of the CMASs to which the request was directed did not respond.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

CONTEXT
FROM
LENGTH
OBJECT
PARM
PARMLEN
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CMAS A CMAS to which the request was directed is not available.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
The maintenance point for the current context is not available.

NOTPERMIT
A not permitted condition occurred for the following reason:

USRID
The user ID associated with the processing thread does not have the required security authorization.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for one of the following reasons:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if the resource table is missing required attributes, contains one or more conflicting attributes, or does not exist. Use the FEEDBACK command to retrieve additional data about this error.

INVALIDATTR
One of the resource table attributes is invalid.

INVALIDVER
The specified version of the resource table is not supported by CICSPlex SM.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

SET

Modify the attributes of one or more resources.

```
►►──SET──MODIFY(data-area)──LENGTH(data-value)──┬──────────────────────────┬──────────►
                                                 ├─ALL──────────────────────┤
                                                 ├─CURRENT──────────────────┤
                                                 ├─FILTER(cpsm-token)───────┤
                                                 ├─MARKED───────────────────┤
                                                 ├─NOTFILTER(cpsm-token)────┤
                                                 ├─NOTMARKED────────────────┤
                                                 └─POSITION(data-value)─────┘

►──┬──────────────────────────────────────┬──┬───────────┬────────────────────────────►
   │                    ┌─FORWARD──┐      │  └─NOREFRESH─┘
   └─COUNT(data-value)──┼──────────┼──────┘
                        └─BACKWARD─┘

►──┬──────────────────────────────────┬──RESULT(cpsm-token)──THREAD(cpsm-token)────────►
   └─NOWAIT──┬──────────────────────┬─┘
             └─TOKEN(data-value)────┘

►─RESPONSE(data-ref)──REASON(data-ref)─────────────────────────────────────────────►◄
```

Description

This command modifies the attributes of one or more resources as represented by resource table records in an existing result set.

- The SET command is valid only for CICS Resource and some CPSM Manager resource tables.
- If the context and scope in effect when you issue a SET command include CICS systems that do not support the requested modification, the request is ignored for those CICS systems.

Related commands

COPY, GET, GROUP, LOCATE, MARK, PERFORM OBJECT, PERFORM SET, SPECIFY FILTER

Options

ALL
Modifies all the resource table records in the result set. When you specify ALL, the COUNT option is ignored.

BACKWARD
Modifies the previous resource table record and continues in a backward direction through the result set modifying as many records as the COUNT option specifies.

Note: If the record pointer is at the bottom of the result set, using BACKWARD modifies the current record (which is the last record) and then continues on to previous records.

COUNT*(data-value)*
Specifies the number of resource table records to be modified. If you do not specify the COUNT option, only one record is refreshed.

If you do not specify the FORWARD or BACKWARD option, the modification process moves in a forward direction through the result set.

CURRENT
Modifies only the current resource table record. When you specify CURRENT, the COUNT option is ignored.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option indicates that only those resource table records that meet the specified filter criteria should be considered for modification.

The number of records that are actually modified is determined by the COUNT option. If you do not specify the COUNT option, only the first record that meets the filter criteria is modified.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

FORWARD
Modifies the current resource table record and continues in a forward direction through the result set modifying as many records as the COUNT option specifies.

LENGTH*(data-value)*
A fullword value that specifies the length of the MODIFY buffer.

Note: The buffer length you specify should not include any data other than a modification expression.

MARKED
Indicates that only those resource table records that are marked in the result set should be considered for modification.

The number of records that are actually modified is determined by the COUNT option. If you do not specify the COUNT option, only the first record that is marked is modified.

You can mark resource table records by using the MARK and UNMARK commands.

MODIFY*(data-area)*
Identifies a buffer containing the modification expression to be used in modifying the resource table records.

For details on how to form a modification expression, see *CICSPlex System Manager Application Programming Guide*.

NOREFRESH
Specifies that the resource table records in the source result set should not be refreshed. The records reflect the status of the resources before the SET command was processed.

If you do not specify the NOREFRESH option, the resource table records are refreshed to reflect the resource status after this operation is complete.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option indicates

that only those resource table records that do not meet the specified filter criteria should be considered for modification.

The number of records that are actually modified is determined by the COUNT option. If you do not specify the COUNT option, only the first record that does not meet the filter criteria is modified.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

NOTMARKED
Indicates that only those resource table records that are not marked in the result set should be considered for modification.

The number of records that are actually modified is determined by the COUNT option. If you do not specify the COUNT option, only the first record that is not marked is modified.

You can mark resource table records by using the MARK and UNMARK commands.

NOWAIT
Returns control to your program as soon as the SET command has been accepted, which allows the command to be processed asynchronously.

If you specify the NOWAIT option, you must use a subsequent RECEIVE command to test for the completion of this request. The results of an asynchronous request are returned as ASYNCREQ resource table records. For a complete description of asynchronous processing, see *CICSPlex System Manager Application Programming Guide*.

Note: If you specify the TOKEN option, the NOWAIT option is assumed by default.

POSITION*(data-value)*
Modifies the nth resource table record in the result set. When you specify POSITION, the COUNT option is ignored.

This value must be a number that identifies the record’s relative position in the result set. The first record in a result set is identified by the number 1.

For example, to modify the fifth resource table record in a result set, you would specify `POSITION(5)`.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT*(cpsm-token)*
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GROUP
- PERFORM OBJECT.

THREAD(*cpsm-token*)
: Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOKEN(*data-value*)
: Defines a 1- to 4-character token that you choose to correlate an asynchronous SET request with the result of a subsequent RECEIVE command. This token is for use by your program; CICSPlex SM makes no use of the value. The token is returned by the RECEIVE command when this SET request is complete.

Conditions

The following is a list of the RESPONSE values that can be returned by the SET command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

SCHEDULED
: The command has been scheduled for processing.

BUSY A busy condition occurred for the following reason:
- **RESULT**
  The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
: An environment error occurred for one of the following reasons:
- **NOSERVICE**
  The application stub program could not load the API service module.
- **NOSTORAGE**
  The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
- **REQTIMEOUT**
  One of the CMASs or MASs to which the request was directed did not respond.
- **SOCRESOURCE**
  A required resource that is owned by the CMAS is not available.

FAILED
: The command failed for one of the following reasons:
- **ABENDED**
  Command processing abended.
- **EXCEPTION**
  Command processing encountered an exceptional condition.

INVALIDATA
: An invalid data error occurred for one of the following reasons:
- **MODIFY**
  An attribute value listed in the MODIFY buffer is not valid for the specified attribute.
- **NOTSUPPORTED**
  An attribute listed in the MODIFY buffer is not modifiable.

INVALIDPARM
: An invalid parameter was detected in either the command string or the MODIFY buffer. The parameter that is invalid is returned as the reason value:

ATTRIBUTE
COUNT
FILTER
LENGTH
MODIFY
NOTFILTER
POSITION
RESULT
THREAD
TOKEN.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CMAS A CMAS to which the request was directed is not available.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
The maintenance point for the current context is not available.

SCOPE
Either none of the MASs in the specified scope are available or none of them support the requested modification.

NOTFOUND
A not found condition occurred for one of the following reasons:

ACTION
An action requested in the MODIFY buffer was not found for the specified resource table.

ATTRIBUTE
An attribute specified in the MODIFY buffer was not found for the specified resource table.

NOTPERMIT
A not permitted condition occurred for the following reason:

USRID
The user ID associated with the processing thread does not have the required security authorization.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for one of the following reasons:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if the resource table is missing required attributes, contains one or more conflicting attributes, or is a duplicate. Use the FEEDBACK command to retrieve additional data about this error.

INVALIDVER
The specified version of the resource table is not supported by CICSPlex SM.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

SPECIFY FILTER

Defines an attribute or value filter and assign an identifying token to it.

```
►►──SPECIFY──FILTER(data-ref)──CRITERIA(data-area)──LENGTH(data-value)──────────►

►─OBJECT(data-value)──THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)───►◄
```

Description

This command defines an attribute or value filter and assigns an identifying token to it.

- Filters are associated with the specific processing thread on which they are defined; they cannot be shared by other processing threads.
- You can define multiple filters for use by a processing thread; CICSPlex SM assigns a unique identifying token to each one.
- When a processing thread is terminated, any filters defined by it are discarded.

Related commands

COPY, DELETE, DISCARD, FETCH, GET, GROUP, LISTEN, LOCATE, MARK, PERFORM OBJECT, PERFORM SET, REFRESH, SET, UNMARK

Options

CRITERIA*(data-area)*
Identifies a buffer containing the filter expression to be used for this operation. The CRITERIA option filters only those resource table records that meet the specified criteria.

For details on how to form a filter expression, see *CICSPlex System Manager Application Programming Guide*.

Note: You cannot specify the EYU_CICSNAME or EYU_CICSREL attributes in a filter expression.

FILTER*(data-ref)*
Names a variable to receive the token that CICSPlex SM assigns to this filter.

This identifying token must be specified on all subsequent commands that use this filter.

LENGTH*(data-value)*
A fullword value that specifies the length of the CRITERIA buffer.

Note: The buffer length you specify should not include any data other than a filter expression.

OBJECT*(data-value)*
Identifies the resource table for which a filter is being created. This value must be the 8-character name of a valid resource table.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the SPECIFY FILTER command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INVALIDATA
Invalid data was detected. The parameter that contains invalid data is returned as the reason value:
CRITERIA
An attribute value listed in the CRITERIA buffer is not valid for the specified attribute.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
CRITERIA
FILTER
LENGTH
OBJECT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:
APITASK
The API control subtask is not active.
CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

NOTFOUND
A not found condition occurred for the following reason:
ATTRIBUTE
An attribute specified in the CRITERIA buffer was not found for the specified resource table.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:
NOTSUPPORTED
The version of the application stub program used for this command is not supported.
NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

SPECIFY VIEW

Build a customized view of a given resource table.

```
►►──SPECIFY──VIEW(data-value)──FIELDS(data-area)──LENGTH(data-value)──────────────►

►──OBJECT(data-value)──THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)───►◄
```

Description

This command builds a customized view of a given resource table.

- Views can be built only for resource tables with a type of CICS Resource.
- Views are associated with the specific processing thread on which they are built; they cannot be shared by other processing threads.
- When a processing thread is terminated, any views built by it are deleted.
- The name you assign to a view takes precedence over any existing resource table names. You can redefine an existing resource table name to represent a customized view of that resource table.
- You are recommended to use names for customized views that are not already assigned either to other customized views or to CICSPlex SM-supplied resource tables. If you do use a name that is already assigned, you should be aware that your processing could be affected. For more details, see *CICSPlex System Manager Application Programming Guide*.
- If and when you migrate to a later version of CICSPlex SM, you should check that any new resource tables do not have the same names as any customized views. For more details, see *CICSPlex System Manager Application Programming Guide*.

Related commands

DISCARD, GET

Options

FIELDS*(data-area)*
Identifies a buffer containing the order expression to be used for this operation.

For details on how to use an order expression with the SPECIFY VIEW command, see *CICSPlex System Manager Application Programming Guide*.

Note: You cannot specify the EYU_CICSNAME or EYU_CICSREL attributes in an order expression.

LENGTH*(data-value)*
A fullword value that specifies the length of the FIELDS buffer.

Note: The buffer length you specify should not include any data other than an order expression.

OBJECT*(data-value)*
Identifies the resource table for which a view is being created. This value must be the 1- to 8-character name of a valid CICS Resource table. For a list of the CICSPlex SM resource tables by type, see *CICSPlex System Manager Application Programming Guide*.

REASON(*data-ref*)
Names a variable to receive the fullword reason value returned by this command.

RESPONSE(*data-ref*)
Names a variable to receive the fullword response value returned by this command.

THREAD(*cpsm-token*)
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

VIEW(*data-value*)
Defines a 1- to 8-character name for the view being built.

Conditions

The following is a list of the RESPONSE values that can be returned by the SPECIFY VIEW command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

DUPE A duplicate condition occurred for the following reason:
VIEW The specified view already exists and cannot be built.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected in either the command string or the FIELDS buffer. The parameter that is invalid is returned as the reason value:
ATTRIBUTE
FIELDS
LENGTH
OBJECT
THREAD
VIEW.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

NOTFOUND
A not found condition occurred for the following reason:

ATTRIBUTE
An attribute specified in the FIELDS buffer was not found for the specified resource table.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for one of the following reasons:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if the resource table is missing required attributes, contains one or more conflicting attributes, or does not exist. Use the FEEDBACK command to retrieve additional data about this error.

INVALIDVER
The specified version of the resource table is not supported by CICSPlex SM.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

TERMINATE

Terminate all API processing on all active threads.

```
►►──TERMINATE──RESPONSE(data-ref)──REASON(data-ref)────────────────────────►◄
```

Description

This command terminates all API processing on all active threads created by the CICS or MVS/ESA task that issues the command.

- Issuing TERMINATE is equivalent to issuing the DISCONNECT command for each active thread individually.
- Any resources that are associated with the thread are released, including result sets, filters, views, diagnostic data, and outstanding asynchronous requests.

Related commands

CONNECT, DISCONNECT

Options

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

Conditions

The following is a list of the RESPONSE values that can be returned by the TERMINATE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

TRANSLATE

Translate resource table attribute values.

```
►►──TRANSLATE──OBJECT(data-value)──ATTRIBUTE(data-value)──────────────────────►

►──┬─FROMCV(data-value)──TOCHAR(data-ref)──┬──THREAD(cpsm-token)──────────────►
   └─FROMCHAR(data-value)──TOCV(data-ref)──┘

►─RESPONSE(data-ref)──REASON(data-ref)──────────────────────────────────────►◄
```

Description

This command translates resource table attribute values that are maintained in an encoded form (such as EYUDA and CVDA values) between their internal coded format and an external display format.

- If your program is written in REXX, you can use the TPARSE command to access a resource table record and translate its attribute values. However, if you use the ASIS option with TPARSE, attribute values are not translated into their external format; in that case, you would need to use TRANSLATE after using TPARSE to receive the formatted display values. For a description of the TPARSE command, see “Chapter 3. REXX functions and commands” on page 129.
- In some CICS environments, the DFHVALUE function returns incompatible CVDA values for the following resource table attribute:

Resource table	Attribute value	CICS Environment
LOCTRAN	RESSEC(RESSECEXT)	CICS/MVS

  Because these CVDA values conflict with values used in other CICS environments, CICSPlex SM must modify them to retain their uniqueness. CICSPlex SM adds 9000 to the value returned by DFHVALUE for each of these CICS CVDA attributes.

  If you want to translate any of these attributes in a CICS environment, you must add 9000 to the value you received from DFHVALUE before presenting the attribute to CICSPlex SM.

Options

ATTRIBUTE*(data-value)*
Identifies the resource table attribute that is to be translated. This value must be the 1- to 12-character name of a valid attribute for the resource table.

FROMCHAR*(data-value)*
Specifies the 1- to 12-character value for the specified attribute.

FROMCV*(data-value)*
Specifies the 4-byte internal coded value for the specified attribute.

OBJECT*(data-value)*
Identifies the resource table to which the attribute being translated belongs. This value must be the 8-character name of a valid resource table.

REASON(*data-ref*)
Names a variable to receive the fullword reason value returned by this command.

RESPONSE(*data-ref*)
Names a variable to receive the fullword response value returned by this command.

THREAD(*cpsm-token*)
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

TOCHAR(*data-ref*)
Names a variable to receive the result of translating an internal coded value to the 1- to 12-character value for the specified attribute.

TOCV(*data-ref*)
Names a variable to receive the result of translating a character value to the 4-byte internal coded value for the specified attribute.

Conditions

The following is a list of the RESPONSE values that can be returned by the TRANSLATE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.
NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.
SOCRESOURCE
A required resource that is owned by the CMAS is not available.

FAILED
The command failed for one of the following reasons:
ABENDED
Command processing abended.
EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:
ATTRIBUTE
FROMCHAR
FROMCV
OBJECT
THREAD
TOCHAR
TOCV.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:
APITASK
The API control subtask is not active.
CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for the following reason:
INVALIDVER
The specified version of the resource table is not supported by CICSPlex SM.

VERSIONINVL
A version conflict occurred for one of the following reasons:
NOTSUPPORTED
The version of the application stub program used for this command is not supported.
NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

UNMARK

Remove the marks placed on resource table records.

```
►►──UNMARK──┤ records_group ├──┬─────────────────┬──────────────────────►
                               └─COUNT(data-ref)─┘

►──┬─────────────────────────────────────┬──RESULT(cpsm-token)──────────►
   └─INTO(data-area)──LENGTH(data-ref)───┘

►──THREAD(cpsm-token)──RESPONSE(data-ref)──REASON(data-ref)────────────►◄
```

records_group

```
   ┌─CURRENT─────────────────────────────┐
├──┼─────────────────────────────────────┼──────────────────────────────┤
   ├─ALL─────────────────────────────────┤
   ├─FILTER(cpsm-token)──────────────────┤
   ├─NOTFILTER(cpsm-token)───────────────┤
   ├─POSITION(data-value)────────────────┤
   └─PARM(data-area)──PARMLEN(data-value)┘
```

Description

This command removes the marks placed on resource table records by a previous MARK command. The UNMARK command always begins processing with the last record that was fetched, rather than the next one in the result set.

Related commands

LOCATE, MARK

Options

ALL
Removes the marks from all resource table records in the result set.

COUNT*(data-ref)*
Names a variable to receive the number of resource table records that could not be unmarked.

CURRENT
Removes the mark from only the current resource table record.

FILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The FILTER option removes the marks from only those resource table records that meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

INTO*(data-area)*
Identifies a buffer to receive a list of resource table records that could not be unmarked.

This buffer must be long enough to hold the maximum number of record numbers that could result from your UNMARK request (in the event that none of them can be unmarked). Record numbers are listed individually (not by range) in the INTO buffer and are separated by commas.

Note: If you receive a RESPONSE value of WARNING AREATOOSMALL (because the buffer was not long enough), the data returned in this buffer represents a partial list of the records that could not be unmarked.

LENGTH*(data-ref)*
A fullword value that specifies the length of the INTO buffer.

The value that CICSPlex SM returns in this field depends on the RESPONSE value for the UNMARK command:

OK The actual length of the data returned in the INTO buffer.

WARNING AREATOOSMALL
The buffer length that would be required to hold a complete list of records that could not be unmarked.

NOTFILTER*(cpsm-token)*
Identifies a filter to be used for this operation. The NOTFILTER option removes the marks from only those resource table records that do not meet the specified filter criteria.

The *cpsm-token* value that identifies a filter is returned by the SPECIFY FILTER command.

PARM*(data-area)*
Identifies a buffer containing the parameter expression that lists the resource table records to be unmarked.

The parameter expression for the UNMARK command is a character string of record numbers. For example:

```
PARM('1,3,6:9,24.')
```

To specify individual records, separate the record numbers with a comma. To specify a range of records, separate the low and high record numbers with a colon. The whole parameter expression must end with a period.

For details on how to use a parameter expression with the UNMARK command, see *CICSPlex System Manager Application Programming Guide*.

PARMLEN*(data-value)*
A fullword value that specifies the length of the PARM buffer.

POSITION*(data-value)*
Removes the mark from the nth resource table record in the result set.

This value must be a number that identifies the record's relative position in the result set. The first record in a result set is identified by the number 1.

For example, to unmark the fifth resource table record in a result set, you would specify `POSITION(5)`.

REASON*(data-ref)*
Names a variable to receive the fullword reason value returned by this command.

RESPONSE*(data-ref)*
Names a variable to receive the fullword response value returned by this command.

RESULT(*cpsm-token*)
Identifies the API result set to be processed by this operation. The result set can be one produced by any of these commands:

- COPY
- GET
- GETDEF
- GROUP
- PERFORM OBJECT.

THREAD(*cpsm-token*)
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the UNMARK command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

NODATA
No records were found that matched the specified search criteria.

WARNING
The command completed processing with a warning, for one of the following reasons:

AREATOOSMALL
You specified the INTO and LENGTH options, but the buffer was not long enough to hold the string of records that could not be unmarked.

DATAERROR
One or more of the records specified in the PARM buffer could not be found to be unmarked. If you specified the COUNT option, the number of records that could not be unmarked is returned. If you specified the INTO and LENGTH options, a list of the records is returned in the buffer.

BUSY A busy condition occurred for the following reason:

RESULT
The result set specified on the RESULT option is being processed by another command.

ENVIRONERROR
An environment error occurred for one of the following reasons:

NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

SOCRESOURCE
A required resource that is owned by the CMAS is not available.

SOLRESOURCE
A required resource that is locally owned (that is, owned by the address space where the processing thread is running) is not available.

FAILED
The command failed for one of the following reasons:

ABENDED
Command processing abended.

EXCEPTION
Command processing encountered an exceptional condition.

INVALIDPARM
An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

COUNT
FILTER
INTO
LENGTH
NOTFILTER
PARM
PARMLEN
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE
A not available condition occurred for one of the following reasons:

APITASK
The API control subtask is not active.

CPSMAPI
The CMAS to which the processing thread is connected is not available for API processing.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

UPDATE

Update an existing CICSPlex SM or CICS definition.

```
►►──UPDATE──OBJECT(data-value)─────────────────────────────────────────────────►

►──┬─FROM(data-area)──┬───────────────────────────────────┬─┬──────────────────►
   │                  └─PARM(data-area)──PARMLEN(data-value)─┘ │
   └─RESULT(cpsm-token)──MODIFY(data-area)──────────────────────┘

►─LENGTH(data-value)──┬───────────────────────┬──THREAD(cpsm-token)────────────►
                      └─CONTEXT(data-value)───┘

►─RESPONSE(data-ref)──REASON(data-ref)────────────────────────────────────────►◄
```

Description

This command updates an existing CICSPlex SM or CICS definition according to the attribute values you specify.

- The updated definition replaces the existing definition in the CICSPlex SM data repository.
- For definitions that have a CICSplex as their context (such as workload management or real-time analysis definitions), the definition is also updated in the data repositories of all CMASs involved in managing the CICSplex.

Related commands

CREATE, REMOVE

Options

CONTEXT*(data-value)*
Identifies the context for this command. The context must be the 1- to 8-character name of a CMAS or CICSplex.

If you do not specify the CONTEXT option, the default context for the thread is assumed.

FROM*(data-area)*
Identifies a buffer containing a resource table record that represents the definition to be updated.

The record must include all of the updates for all of the attributes of the resource table specified on the OBJECT option. For optional attributes that you do not want to specify, set the field to the appropriate null value for the attribute's data type.

LENGTH*(data-value)*
A fullword value that specifies the length of the FROM or MODIFY buffer.

Note: The buffer length you specify should not include any data other than a resource table record or modification expression.

MODIFY(*data-area*)
Identifies a buffer containing the modification expression to be used in modifying CICS Definition resource table records.

For details on how to form a modification expression, see *CICSPlex System Manager Application Programming Guide*.

OBJECT(*data-value*)
Identifies the resource table that represents the definition being updated. This value must be the 8-character name of a valid CPSM Definition or CICS Definition resource table. For a list of the CICSPlex SM resource tables by type, see *CICSPlex System Manager Application Programming Guide*.

PARM(*data-area*)
Identifies a buffer containing a parameter expression to be used in updating the definition.

For details on how to use a parameter expression with the UPDATE command, see *CICSPlex System Manager Application Programming Guide*. For a description of the parameters that are valid for a given resource table, see the *CICSPlex System Manager Resource Tables Reference*.

PARMLEN(*data-value*)
A fullword value that specifies the length of the PARM buffer.

REASON(*data-ref*)
Names a variable to receive the fullword reason value returned by this command.

RESPONSE(*data-ref*)
Names a variable to receive the fullword response value returned by this command.

RESULT(*cpsm-token*)
Identifies the API result set to be processed by this operation. The result set must contain CICS Definition resource table records. The records are updated according to the modification expression you supply in the MODIFY buffer.

The result set can be one produced by any of these commands:
- COPY
- GET
- GROUP
- PERFORM OBJECT.

THREAD(*cpsm-token*)
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

Conditions

The following is a list of the RESPONSE values that can be returned by the UPDATE command. The description of each RESPONSE includes a list of associated REASON values, if appropriate.

OK The command completed processing successfully.

ENVIRONERROR
An environment error occurred for one of the following reasons:
NOSERVICE
The application stub program could not load the API service module.

NOSTORAGE
: The application stub program could not obtain the necessary storage in the address space where the processing thread is running.

REQTIMEOUT
: One of the CMASs or MASs to which the request was directed did not respond.

SOCRESOURCE
: A required resource that is owned by the CMAS is not available.

FAILED

The command failed for one of the following reasons:

ABENDED
: Command processing abended.

EXCEPTION
: Command processing encountered an exceptional condition.

INVALIDATA

An invalid data error occurred for one of the following reasons:

MODIFY
: An attribute value listed in the MODIFY buffer is not valid for the specified attribute.

NOTSUPPORTED
: An attribute listed in the MODIFY buffer is not modifiable.

INVALIDPARM

An invalid parameter was detected. The parameter that is invalid is returned as the reason value:

CONTEXT
FROM
LENGTH
MODIFY
OBJECT
PARM
PARMLEN
RESULT
THREAD.

Check the command description for valid parameter syntax.

NOTAVAILABLE

A not available condition occurred for one of the following reasons:

APITASK
: The API control subtask is not active.

CMAS A CMAS to which the request was directed is not available.

CPSMAPI
: The CMAS to which the processing thread is connected is not available for API processing.

MAINTPOINT
: The maintenance point for the current context is not available.

NOTPERMIT

A not permitted condition occurred for the following reason:

USRID
: The user ID associated with the processing thread does not have the required security authorization.

SERVERGONE
The CMAS to which the processing thread was connected is no longer active.

TABLEERROR
A resource table record is invalid for one of the following reasons:

DATAERROR
The value associated with one or more resource table attributes is invalid. This error can occur if:

- The resource table is missing required attributes, contains one or more conflicting attributes, or does not exist.
- A CICS resource definition contains attributes that would cause the EXEC CICS CREATE command to issue warnings.

Use the FEEDBACK command to retrieve additional data about this error.

INVALIDATTR
One of the resource table attributes is invalid.

INVALIDVER
The specified version of the resource table is not supported by CICSPlex SM.

VERSIONINVL
A version conflict occurred for one of the following reasons:

NOTSUPPORTED
The version of the application stub program used for this command is not supported.

NOTVSNCONN
The version of the application stub program used for this command is not the same as the version used with the CONNECT command.

Chapter 3. REXX functions and commands

This chapter contains detailed descriptions of the REXX functions and commands supplied with CICSPlex SM. These functions and commands can be used only with the REXX run-time interface.

The REXX functions supplied with CICSPlex SM make use of standard REXX variable substitution rules. In addition to REXX return codes, these functions can produce EYUARnnnn messages. For descriptions of those messages, see *CICSPlex System Manager Messages and Codes*.

Each description includes the following
- A description of the command
- Purpose
- Syntax of command (*var* represents a variable)
- Available options for the command
- REXX response codes returned by the command

The functions are presented in alphabetical order:
- "EYUAPI()" on page 130
- "EYUINIT()" on page 131
- "EYUREAS()" on page 132
- "EYURESP()" on page 133
- "EYUTERM()" on page 134

Functions

EYUAPI()

Passes an API command to CICSPlex SM.

```
var = EYUAPI(command string)

    OR

var = EYUAPI('command string')
```

Description

This function passes an API command to CICSPlex SM. You must issue an EYUAPI or EYUINIT function before you can use the ADDRESS CPSM command to pass API commands to REXX.

Options

command string
Identifies the API command and options to be passed.

Return codes

The following is a list of the REXX return codes that can be returned by the EYUAPI function in its assigned variable (*var*).

These return codes indicate what REXX did with the EYUAPI function; they do not indicate whether the API command that was passed was successfully processed by CICSPlex SM. For that information, you must refer to the RESPONSE and REASON values returned by the command.

0	The EYUAPI function was successful.
1	The EYUAPI function failed.

EYUINIT()

Initialize the CICSPlex SM API environment and allocate the necessary resources.

```
var = EYUINIT()
```

Description

This command initializes the CICSPlex SM API environment and allocates the necessary resources. EYUINIT should be the first function issued in a REXX program.

Note: You must issue an EYUINIT or EYUAPI function before you can use the ADDRESS CPSM command to pass API commands to REXX.

Return codes

The following is a list of the REXX return codes that can be returned by the EYUINIT function in its assigned variable (*var*).

0	The EYUINIT function was successful.
1	The EYUINIT function failed.

EYUREAS()

Translate the numeric value returned by the REASON option of an API command.

```
var = EYUREAS(reason)
```

Description

This command translates the numeric value returned by the REASON option of an API command into its character equivalent and vice versa.

Options

reason
Is the REASON value to be translated.

Return codes

The following is a list of the REXX return codes that can be returned by the EYUREAS function in its assigned variable (*var*).

nnnn The numeric or character equivalent of the specified REASON value.

−1 The specified REASON value is invalid and could not be translated.

EYURESP()

Translate the numeric value returned by the RESPONSE option of an API command.

```
var = EYURESP(response)
```

Description

This command translates the numeric value returned by the RESPONSE option of an API command into its character equivalent and vice versa.

Options

response
Is the RESPONSE value to be translated.

Return codes

The following is a list of the REXX return codes that can be returned by the EYURESP function in its assigned variable (*var*).

nnnn	The numeric or character equivalent of the specified RESPONSE value.
−1	The specified RESPONSE value is invalid and could not be translated.

EYUTERM()

Terminate the CICSPlex SM API environment and release any allocated resources.

```
var = EYUTERM()
```

Description

This command terminates the CICSPlex SM API environment and releases any allocated resources. EYUTERM should be the last function issued in a REXX program.

Note: If the CICSPlex SM host subcommand environment is actually installed at your enterprise (as opposed to being called from the function package), you may not need to use EYUTERM at the end of every program. The resources that remain allocated can be reused by the next program that accesses the host subcommand environment.

Return codes

The following is a list of the REXX return codes that can be returned by the EYUTERM function in its assigned variable (*var*).

0	The EYUTERM function was successful.
1	The EYUTERM function failed.

Commands

The REXX-specific commands supplied with CICSPlex SM perform a series of API commands internally and return the results to REXX.

The commands are presented here in alphabetical order. Each description includes the purpose, syntax, and available options for the command.

Notes:

1. You cannot use these commands to process user-defined views of a resource table that were created by the SPECIFY VIEW command. If you create a view with the same name as a supplied resource table and then specify that name on one of these commands, the command fails.
2. These commands do not use the RESPONSE and REASON options. The result of these REXX-specific processes is returned by the STATUS option.
3. These commands do not provide any useful FEEDBACK information. The API commands that are issued internally reuse the same feedback area. So, when one of these commands finishes processing, the feedback area does not represent the entire sequence of events.

The commands are:
- “TBUILD” on page 135
- “TPARSE” on page 137

TBUILD

Build a resource table record from a set of variables.

```
►►──TBUILD──OBJECT(data-value)──PREFIX(data-value)──STATUS(data-ref)────────────►

►─VAR(data-area)──┬──────┬──THREAD(cpsm-token)──────────────────────────────────►◄
                  └─ASIS─┘
```

Description

This command builds a resource table record from a set of variables that represent the individual attributes of a CICSPlex SM or CICS definition. A definition is represented by a resource table with a type of CPSM Definition or CICS Definition.

You form the attribute variables by adding a prefix to the attribute name, like this:

```
prefix_attribute
```

where `prefix` is a text string that you supply and `attribute` is the name of an attribute in the resource table. You must insert an underscore character (_) between the prefix and the attribute name.

The resource table record can be placed in any valid REXX variable, including a stem variable.

TBUILD only uses the attributes that you specify; it does not assume any default values for optional attributes. If you do not supply a variable for an attribute that is optional, the corresponding field in the resource table record is initialized according to its data type (that is, character fields are set to blanks, binary data and EYUDA values are set to zeroes).

Note: For a list of the CICSPlex SM resource tables by type, see *CICSPlex System Manager Application Programming Guide*. For a complete description of a particular resource table and its attributes, see the *CICSPlex System Manager Resource Tables Reference*.

Options

ASIS

Indicates that the resource table attribute values are already in their internal format; they are to be processed as is, rather than translated.

You must use the ASIS option to rebuild a CICSPlex SM or CICS definition that you previously parsed (with the TPARSE ASIS command).

OBJECT*(data-value)*

Identifies the resource table for which a record is to be built. This value must be the 1- to 8-character name of a valid CPSM Definition or CICS Definition resource table.

Note: You cannot use the TBUILD command to process a resource table view that was created by the SPECIFY VIEW command. If you create a view with the same name as a supplied resource table and then specify that name on a TBUILD command, the command fails.

PREFIX(*data-value*)
Specifies the prefix you used to name the variables that contain the resource table attributes.

Note: The maximum allowable length for a prefix is determined by REXX and the environment in which the program runs.

STATUS(*data-ref*)
Names a variable to receive the REXX status value returned for this command. The status is returned in character form as one of the following:

OK The TBUILD command completed processing successfully.

SYNTAX ERROR
The TBUILD command could not be processed because of a syntax error. EYUARnnnn messages that describe the error are written to the destination defined on your system for IRXSAY WRITEERR output.

FAILURE
The TBUILD command failed because some of the data it was attempting to process is invalid. Trace data is written to a REXX stem variable called EYUTRACE. EYUARnnnn messages that describe the failure may also be written to the destination defined on your system for IRXSAY WRITEERR output.

Note: For more information about the EYUTRACE stem variable, see *CICSPlex System Manager Application Programming Guide*.

THREAD(*cpsm-token*)
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

VAR(*data-area*)
Names a variable to receive the resource table record that is built by TBUILD.

TPARSE

Parse a resource table record from a variable into a set of variables.

```
►►──TPARSE──OBJECT(data-value)──PREFIX(data-value)──STATUS(data-ref)────────────►

►─VAR(data-area)──┬──────┬──THREAD(cpsm-token)──────────────────────────────────►◄
                  └─ASIS─┘
```

Description

This command parses a resource table record from a variable into a set of variables that represent the individual attributes of the table. You can use TPARSE with any type of CICSPlex SM resource table.

The resource table variable can be any valid REXX variable, including a stem variable. The output variables are formed by adding a prefix to the attribute name, like this:

```
prefix_attribute
```

where `prefix` is a text string that you supply and `attribute` is the name of an attribute in the resource table. An underscore (_) is inserted between the prefix and the attribute name.

Note: For complete descriptions of the resource tables and their attributes, see the *CICSPlex System Manager Resource Tables Reference*.

Options

ASIS

Specifies that the resource table attribute values are not to be translated into their external format; they are to be returned as is. Attribute values are presented as follows:

- Character values have trailing blanks.
- Binary values have leading zeroes and are not converted to display format.
- EYUDA and CVDA values are not converted to character format.

You must use the ASIS option to parse a CPSM Definition or CICS Definition resource table that you want to rebuild (with the TBUILD ASIS command).

Note: If you use the ASIS option with EYUDA or CVDA values, you can use the TRANSLATE command to convert the coded numeric value into a character value.

OBJECT*(data-value)*

Identifies the resource table that is to be parsed. This value must be the 1- to 8-character name of a valid resource table.

Note: You cannot use the TPARSE command to process a resource table view that was created by the SPECIFY VIEW command. If you create a view with the same name as a supplied resource table and then specify that name on a PARSE command, the command fails.

PREFIX*(data-value)*

Specifies the prefix you want to use to name the attribute variables returned by TPARSE.

Note: The maximum allowable length for a prefix is determined by REXX and the environment in which the program runs.

STATUS*(data-ref)*
Names a variable to receive the REXX status value returned for this command. The status is returned in character form as one of the following:

OK The TPARSE command completed processing successfully.

SYNTAX ERROR
The TPARSE command could not be processed because of a syntax error. EYUARnnnn messages that describe the error are written to the destination defined on your system for IRXSAY WRITEERR output.

FAILURE
The TPARSE command failed because some of the data it was attempting to process is invalid. Trace data is written to a REXX stem variable called EYUTRACE. EYUARnnnn messages that describe the failure may also be written to the destination defined on your system for IRXSAY WRITEERR output.

Note: For more information about the EYUTRACE stem variable, see *CICSPlex System Manager Application Programming Guide*.

THREAD*(cpsm-token)*
Identifies the API thread to be used for this operation. The *cpsm-token* value that identifies a thread is returned by the CONNECT command.

VAR*(data-area)*
Names a variable that contains the resource table record to be parsed.

Appendix A. RESPONSE and REASON values

This appendix provides a summary of the RESPONSE and REASON values returned by each API command.

For descriptions of these values, refer to the description of the command that returns them. For a list of RESPONSE and REASON character values and their numeric equivalents, see “Appendix B. EYUDA values” on page 147. For a discussion of the RESPONSE and REASON options, see *CICSPlex System Manager Application Programming Guide*.

COMMAND	RESPONSE	REASONS
ADDRESS		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	ECB, SENTINEL, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
CANCEL		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	NOTIFICATION, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
CONNECT		
	OK	
	ENVIRONERROR	APITASKERR, NOSERVICE, NOSTORAGE, SOCRESOURCE, SOERESOURCE, SOLRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	CONTEXT, SCOPE, SIGNONPARM, USRID, VERSION
	NOTAVAILABLE	APITASK, CPSMAPI, CPSMSERVER, CPSMSYSTEM, CPSMVERSION
	NOTPERMIT	USRID
	VERSIONINVL	NOTSUPPORTED
COPY		
	OK	
	NODATA	
	BUSY	FROM, TO
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INCOMPATIBLE	INVALIDOBJ
	INVALIDPARM	FILTER, FROM, NOTFILTER, THREAD, TO
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
CREATE		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION

RESPONSE and REASON values

COMMAND	RESPONSE	REASONS
	INVALIDPARM	CONTEXT, FROM, LENGTH, OBJECT, PARM, PARMLEN, THREAD
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR, INVALIDATTR, INVALIDVER
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
DELETE		
	OK	
	NODATA	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE, SOLRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	FILTER, NOTFILTER, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
DISCARD		
	OK	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INUSE	FILTER, VIEW
	INVALIDPARM	FILTER, RESULT, THREAD, VIEW
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
DISCONNECT		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
FEEDBACK		
	OK	
	NODATA	
	WARNING	AREATOOSMALL
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	COUNT, INTO, LENGTH, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
FETCH		
	OK	
	NODATA	BACKWARD, FORWARD
	WARNING	AREATOOSMALL
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE, SOLRESOURCE
	FAILED	ABENDED, EXCEPTION

COMMAND	RESPONSE	REASONS
	INVALIDPARM	COUNT, FILTER, INTO, LENGTH, NOTFILTER, POSITION, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
GET		
	OK	
	SCHEDULED	
	NODATA	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDATA	CRITERIA
	INVALIDPARM	CONTEXT, CRITERIA, FILTER, LENGTH, OBJECT, PARM, PARMLEN, RESULT, SCOPE, THREAD, TOKEN
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT, SCOPE, WORKLOAD
	NOTFOUND	ATTRIBUTE
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
GETDEF		
	OK	
	NODATA	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INCOMPATIBLE	INVALIDOBJ
	INVALIDPARM	ATTRIBUTE, OBJECT, RESOURCE, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	TABLEERROR	DATAERROR, INVALIDVER
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
GROUP		
	OK	
	NODATA	
	BUSY	FROM, TO
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	BY, FILTER, FROM, LENGTH, NOTFILTER, SUMOPT, THREAD, TO
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
LISTEN		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INCOMPATIBLE	INVALIDEVT
	INVALIDPARM	CONTEXT, EVENT, FILTER, NOTFILTER, NOTIFICATION, THREAD, TOKEN
	NOTAVAILABLE	APITASK, CPSMAPI, PLEXMGR
	SERVERGONE	

RESPONSE and REASON values

COMMAND	RESPONSE	REASONS
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
LOCATE		
	OK	
	NODATA	BACKWARD, FORWARD
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE, SOLRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	BACKWARD, FILTER, FORWARD, NOTFILTER, POSITION, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
MARK		
	OK	
	NODATA	
	WARNING	AREATOOSMALL, DATAERROR
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE, SOLRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	COUNT, FILTER, INTO, LENGTH, NOTFILTER, PARM, PARMLEN, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
ORDER		
	OK	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	BY, LENGTH, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
PERFORM OBJECT		
	OK	
	SCHEDULED	
	NODATA	BACKWARD, FORWARD
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDATA	PARM, CRITERIA
	INVALIDPARM	ACTION, CONTEXT, CRITERIA, FILTER, LENGTH, OBJECT, PARM, PARMLEN, RESULT, SCOPE, THREAD, TOKEN
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT, PLEXMGR, SCOPE, WORKLOAD
	NOTFOUND	ACTION, ATTRIBUTE
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
	WARNING	RESULT, ACTION

COMMAND	RESPONSE	REASONS
PERFORM SET		
	OK	
	SCHEDULED	
	NODATA	BACKWARD, FORWARD
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDATA	PARM, CRITERIA
	INVALIDPARM	ACTION, FILTER, NOTFILTER, PARM, PARMLEN, POSITION, RESULT, THREAD, TOKEN
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT, PLEXMGR, SCOPE, WORKLOAD
	NOTFOUND	ACTION, ATTRIBUTE
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
QUALIFY		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	CONTEXT, SCOPE, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI, PLEXMGR
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
QUERY		
	OK	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	CONTEXT, DATALENGTH, OBJECT, RESULT, THREAD, TYPE
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
RECEIVE		
	OK	
	NODATA	
	WARNING	AREATOOSMALL
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	DELAY, INTO, LENGTH, OBJECT, THREAD, TOKEN
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
REFRESH		
	OK	
	SCHEDULED	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	COUNT, FILTER, NOTFILTER, RESULT, THREAD, TOKEN

RESPONSE and REASON values

COMMAND	RESPONSE	REASONS
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT, SCOPE
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
REMOVE		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	CONTEXT, FROM, LENGTH, OBJECT, PARM, PARMLEN, THREAD
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR, INVALIDATTR, INVALIDVER
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
SET		
	OK	
	SCHEDULED	
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDATA	MODIFY, NOTSUPPORTED
	INVALIDPARM	ATTRIBUTE, COUNT, FILTER, LENGTH, MODIFY, NOTFILTER, POSITION, RESULT, THREAD, TOKEN
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT, SCOPE
	NOTFOUND	ACTION, ATTRIBUTE
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR, INVALIDVER
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
SPECIFY FILTER		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	CRITERIA, FILTER, LENGTH, OBJECT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	NOTFOUND	ATTRIBUTE
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
SPECIFY VIEW		
	OK	
	DUPE	VIEW
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDATA	CRITERIA
	INVALIDPARM	ATTRIBUTE, FIELDS, LENGTH, OBJECT, THREAD, VIEW
	NOTAVAILABLE	APITASK, CPSMAPI
	NOTFOUND	ATTRIBUTE
	SERVERGONE	
	TABLEERROR	DATAERROR, INVALIDVER
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN

COMMAND	RESPONSE	REASONS
TERMINATE		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE
	FAILED	ABENDED, EXCEPTION
TRANSLATE		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	ATTRIBUTE, FROMCHAR, FROMCV, OBJECT, THREAD, TOCHAR, TOCV
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	TABLEERROR	INVALIDVER, INVALIDVER
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
UNMARK		
	OK	
	NODATA	
	WARNING	AREATOOSMALL, DATAERROR
	BUSY	RESULT
	ENVIRONERROR	NOSERVICE, NOSTORAGE, SOCRESOURCE, SOLRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	COUNT, FILTER, INTO, LENGTH, NOTFILTER, PARM, PARMLEN, RESULT, THREAD
	NOTAVAILABLE	APITASK, CPSMAPI
	SERVERGONE	
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN
UPDATE		
	OK	
	ENVIRONERROR	NOSERVICE, NOSTORAGE, REQTIMEOUT, SOCRESOURCE
	FAILED	ABENDED, EXCEPTION
	INVALIDPARM	CONTEXT, FROM, LENGTH, MODIFY, OBJECT, PARM, PARMLEN, RESULT, THREAD
	NOTAVAILABLE	APITASK, CMAS, CPSMAPI, MAINTPOINT
	NOTPERMIT	USRID
	SERVERGONE	
	TABLEERROR	DATAERROR, INVALIDATTR, INVALIDVER
	VERSIONINVL	NOTSUPPORTED, NOTVSNCONN

Appendix B. EYUDA values

This appendix lists the CICSPlex SM API EYUDA values and their numeric equivalents. There are three types of EYUDAs:

General
: Values that CICSPlex SM uses to describe or define a resource. These EYUDAs have numeric values in the range of 1– 429. See "EYUDA general values in numerical order".

RESPONSE
: Values returned by the RESPONSE option of an API command. These EYUDAs have numeric values in the range of 1024 – 1042. See "EYUDA RESPONSE values in numerical order" on page 174.

REASON
: Values returned by the REASON option of an API command. These EYUDAs have numeric values in the range of 1280 – 1366. See "EYUDA REASON values in numerical order" on page 175.

EYUDA information is provided in the following sections:

- "EYUDA general values in numerical order"
- "EYUDA general values in alphabetic order" on page 158
- "EYUDA RESPONSE values in numerical order" on page 174
- "EYUDA RESPONSE values in alphabetic order" on page 175
- "EYUDA REASON values in numerical order" on page 175
-

EYUDA general values in numerical order

This section lists the general EYUDAs in numerical order and shows the character value for each.

Value	EYUDA
0	N_A
0	NA
1	YES
2	NO
3	ON
4	OFF
5	VALID
6	INVALID
7	TRUE
8	FALSE
9	VLS
10	LS
11	LW
12	NM

Numeric EYUDA general values

13	HW
14	HS
15	VHS
16	EQ
17	NE
18	GT
19	LT
20	LOW
21	HIGH
22	NORMAL
23	IMMEDIATE
24	TAKEOVER
25	SHUT
26	NOSHUT
27	GLOBAL
28	SYSTEM
30	SUSPEND
33	VALUE
34	THRESHOLD
35	SAM
36	APM
37	MRM
38	TRANID
39	TERMID
40	SIGNID
41	RACFGID
42	USERID
43	NULL
44	CHARSTR
45	ACTIVE
46	INACTIVE
47	WAITING
48	QUIESCING
49	POOL
50	LTRAN
51	RTRAN
53	GOAL

54	QUEUE
55	LUNAME
58	DELIMIT
59	PCONV
60	LOGON
61	SIGNON
63	PERMANENT
64	MCICS
65	MGLBL
66	MDBX
67	MCONN
68	MFILE
69	MJRNL
70	MPROG
71	MTERM
72	MTDQS
73	MTRAN
74	MAPPL
75	ABOVE
76	BELOW
77	NOCOPY
78	DSA
79	CDSA
80	UDSA
81	LPA
82	EDSA
83	ECDSA
84	EUDSA
85	ERDSA
86	ELPA
87	CICS
88	USER
89	READONLY
90	LU61
91	LU62
92	INDIRECT
93	MRO

Numeric EYUDA general values

94	NOTAPPLIC
95	LFILE
96	RFILE
97	CTABL
98	UTABL
99	INSTALLED
100	PENDING
101	INHERIT
102	EXPLICIT
103	CICSSYS
104	SYSGROUP
105	KEEP
106	NAME
107	FORCE
108	NONE
109	UNASSIGNED
110	DROP
111	LOCAL
112	REMOTE
113	DEFAULT
114	REMOVE
115	DORMANT
116	START
117	END
118	ADJACENT
119	LOSTCON
120	CREATING
121	REMOVING
122	QUIESCED
123	LINKACTIVE
124	LINKDOWN
125	ESSS
126	CONACT
127	RESET
128	SYSDUMP
129	TRANDUMP
130	MAXTASK

131	STALLED
132	SOSUDSA
133	SOSCDSA
134	SOSEUDSA
135	SOSECDSA
136	SOSERDSA
137	SOSSDSA
138	SOSESDSA
139	SOSRDSA
140	QUIESCE
141	PRIMARY
142	SECONDARY
143	DUPLICATE
144	FROZEN
145	ALL
146	ANY
147	SUM
148	MIN
149	MAX
150	AVG
151	CNT
152	LE
153	GE
154	SDSA
155	ESDSA
156	RDSA
161	EXECUTE
162	CHECK
163	LOSTCMAS
164	LOSTMAS
165	AASTERISK
166	BLANK
167	INDEX
168	DATA
169	BOTH
170	NETBIOS
171	TCPIP

Numeric EYUDA general values

172	AFTER
173	ALLREQS
174	ASA
177	ASIS
178	ASSEMBLER
179	BACKOUTONLY
180	BEFORE
181	BLUE
182	C
183	CLEARCONV
184	CLOSE
185	COBOL
186	COLD
187	CYCLIC
188	DEFERRED
189	DIP
190	DISK
191	EODS
192	EXTA
193	FILE
194	FIRSTREF
195	GREEN
196	IDENTIFY
197	IGNORE
198	INITIAL
199	INOUT
200	INPUT
201	LEAVE
202	LE370
203	LINEAR
204	LINK
205	LMS
206	LOGICAL
207	LOGOFF
208	LRU
209	MACHINE
210	MESSAGE

211	MIXIDPE
212	MOD
213	MODIFYREQS
214	MSRE
215	NEUTRAL
216	NEW
217	NOFORCE
218	NONVTAM
219	OLD
220	ONLY
221	OPEN
222	OPID
223	OUTPUT
224	PERSISTENT
225	PHYSICAL
226	PINK
227	PLI
228	PRINTER
229	RED
230	RECOVERY
231	REJECT
232	RELEASESESS
233	REREAD
234	RPG
235	SCS
236	SECURITY
237	SHR
238	SKIP
239	SPECIFIC
240	STARTIO
241	STARTUP
242	STRFIELD
243	SYSDEFAULT
244	TAPE
245	TERMINAL
246	TRANSACTION
247	TRANSIENT

Numeric EYUDA general values

248	TURQUOISE
249	U
250	UNCONDREL
251	UPDATEONLY
252	VB
253	VERIFY
254	VTAM
255	YELLOW
256	3270
257	AUTO
258	DYNAM
259	EXTRA
260	INTRA
261	IND
262	STAT
263	RELATED
264	TARGET
265	NEVER
266	ALWAYS
267	COLDONLY
268	WARMONLY
269	PROMPT
270	CONTINUE
271	TERMINATE
272	SHUTDOWN
273	RTADEF
274	STATDEF
275	CONNDEF
276	FILEDEF
277	JRNLDEF
278	JRNMDEF
279	LSRDEF
280	MAPDEF
281	PARTDEF
282	PRTNDEF
283	PROFDEF
284	PROGDEF

285	SESSDEF
286	TDQDEF
287	TERMDEF
288	TRANDEF
289	TRNCLDEF
290	TSQDEF
291	TYPTMDEF
292	MPSYNCCR
293	ASSOCIATIONS
294	MEMBERS
295	DB2CDEF
296	DB2EDEF
297	DB2TDEF
298	FSEGDEF
299	TSMDEF
300	ENQMDEF
301	TCPDEF
302	DOCDEF
303	FULL
304	RELEASE
305	PA1
306	PA2
307	PA3
308	PF1
309	PF2
310	PF3
311	PF4
312	PF5
313	PF6
314	PF7
315	PF8
316	PF9
317	PF10
318	PF11
319	PF12
320	PF13
321	PF14

322	PF15
323	PF16
324	PF17
325	PF18
326	PF19
327	PF20
328	PF21
329	PF22
330	PF23
331	PF24
332	STANDARD
333	APPC
334	BATCHDI
335	BCHLU
336	CONSOLE
337	CONTLU
338	INTLU
339	LUTYPE2
340	LUTYPE3
341	LUTYPE4
342	L3277
343	L3284
344	L3286
345	PIPELINE
346	SCSPRINT
347	TLX
348	TWX
349	USERPROG
350	3270P
351	3275
352	3277
353	3277CM
354	3284
355	3284CM
356	3286
357	3286CM
358	3600

359	3614
360	3650
361	3653
362	3767
363	3767C
364	3767I
365	3770
366	3770B
367	3770C
368	3770I
369	3790
370	BLINK
371	REVERSE
372	UNDERLINE
373	INSTALL
374	RESDEF
375	RASINDSC
376	RESTYPE
377	SCOPETYP
378	REBUILD
379	RECONNECT
380	CONNECTING
381	TWAIT
382	NOTWAIT
383	DISCONNING
384	CFTBL
385	CF
386	QUASIRENT
387	THREADSAFE
388	PROCDEF
389	BAPPL
390	ACTIVITY
391	PROCESS
393	PMWINDOW
394	FULLSCREEN
395	COM1
396	COM2

Numeric EYUDA general values

397	COM3
398	COM4
399	COM5
400	COM6
401	COM7
402	COM8
403	CLIENTAUTH
404	RQMDEF
405	3270TERM
406	3270PRNT
407	3270DBTM
408	3270DBPR
409	3151TERM
410	SEQTERM
411	EOF
412	EOT
413	FEPOODEF
414	FETRGDEF
415	FENODDEF
416	FEPRODEF
417	DEBUG
418	LEVSE
419	KEY
420	RBA
423	EJCODEF
424	EJDJDEF
425	BASIC
426	CERTIFICATE
427	AUTOREGISTER
428	AUTOMATIC
429	CLIENTCERT

EYUDA general values in alphabetic order

This section lists the general EYUDAs in alphabetic order by their character values.

EYUDA	**Value**
AASTERISK	165

Alphabetic EYUDA general values

ABOVE	75
ACTIVE	45
ACTIVITY	390
ADJACENT	118
AFTER	172
ALL	145
ALLREQS	173
ALWAYS	266
ANY	146
APM	36
APPC	333
ASA	174
ASIS	177
ASSEMBLER	178
ASSOCIATIONS	293
AUTO	257
AUTOMATIC	428
AUTOREGISTER	427
AVG	150
BACKOUTONLY	179
BAPPL	389
BASIC	425
BATCHDI	334
BCHLU	335
BEFORE	180

Alphabetic EYUDA general values

BELOW	76
BLANK	166
BLINK	370
BLUE	181
BOTH	169
C	182
CDSA	79
CERTIFICATE	426
CF	385
CFTBL	384
CHARSTR	44
CHECK	162
CICS	87
CICSSYS	103
CLEARCONV	183
CLIENTAUTH	403
CLIENTCERT	429
CLOSE	184
CNT	151
COBOL	185
COLD	186
COLDONLY	267
COM1	395
COM2	396
COM3	397
COM4	398
COM5	399
COM6	400

COM7	401
COM8	402
CONACT	126
CONNDEF	275
CONNECTING	380
CONSOLE	336
CONTINUE	270
CONTLU	337
CREATING	120
CTABL	97
CYCLIC	187
DATA	168
DB2CDEF	295
DB2EDEF	296
DB2TDEF	297
DEBUG	417
DEFAULT	113
DEFERRED	188
DELIMIT	58
DIP	189
DISCONNING	383
DISK	190
DOCDEF	302
DORMANT	115
DROP	110

Alphabetic EYUDA general values

DSA	78
DUPLICATE	143
DYNAM	258
ECDSA	83
EDSA	82
EJCODEF	423
EJDJDEF	424
ELPA	86
END	117
ENQMDEF	300
EODS	191
EOF	411
EOT	412
EQ	16
ERDSA	85
ESDSA	155
ESSS	125
EUDSA	84
EXECUTE	161
EXPLICIT	102
EXTA	192
EXTRA	259
FALSE	8
FENODDEF	415
FEPOODEF	413
FEPRODEF	416

FETRGDEF	414
FILE	193
FILEDEF	276
FIRSTREF	194
FORCE	107
FROZEN	144
FSEGDEF	298
FULL	303
FULLSCREEN	394
GE	153
GLOBAL	27
GOAL	53
GREEN	195
GT	18
HIGH	21
HS	14
HW	13
IDENTIFY	196
IGNORE	197
IMMEDIATE	23
INACTIVE	46
IND	261
INDEX	167
INDIRECT	92
INHERIT	101
INITIAL	198

Alphabetic EYUDA general values

INOUT	199
INPUT	200
INSTALL	373
INSTALLED	99
INTLU	338
INTRA	260
INVALID	6
JRNLDEF	277
JRNMDEF	278
KEEP	105
KEY	419
LE	152
LEAVE	201
LEVSE	418
LE370	202
LFILE	95
LINEAR	203
LINK	204
LINKACTIVE	123
LINKDOWN	124
LMS	205
LOCAL	111
LOGICAL	206
LOGOFF	207
LOGON	60
LOSTCMAS	163

LOSTCON	119
LOSTMAS	164
LOW	20
LPA	81
LRU	208
LS	10
LSRDEF	279
LT	19
LTRAN	50
LUNAME	55
LUTYPE2	339
LUTYPE3	340
LUTYPE4	341
LU61	90
LU62	91
LW	11
L3277	342
L3284	343
L3286	344
MACHINE	209
MAPDEF	280
MAPPL	74
MAX	149
MAXTASK	130
MCICS	64
MCONN	67
MDBX	66

Alphabetic EYUDA general values

MEMBERS	294
MESSAGE	210
MFILE	68
MGLBL	65
MIN	148
MIXIDPE	211
MJRNL	69
MOD	212
MODIFYREQS	213
MPROG	70
MPSYNCCR	292
MRM	37
MRO	93
MSRE	214
MTDQS	72
MTERM	71
MTRAN	73
N_A	0
NA	0
NAME	106
NE	17
NETBIOS	170
NEUTRAL	215
NEVER	265
NEW	216
NM	12
NO	2

NOCOPY	77
NOFORCE	217
NONE	108
NONVTAM	218
NORMAL	22
NOSHUT	26
NOTAPPLIC	94
NOTWAIT	382
NULL	43
OFF	4
OLD	219
ON	3
ONLY	220
OPEN	221
OPID	222
OUTPUT	223
PARTDEF	281
PA1	305
PA2	306
PA3	307
PCONV	59
PENDING	100
PERMANENT	63
PERSISTENT	224
PF1	308
PF10	317
PF11	318
PF12	319
PF13	320

PF14	321
PF15	322
PF16	323
PF17	324
PF18	325
PF19	326
PF2	309
PF20	327
PF21	328
PF22	329
PF23	330
PF24	331
PF3	310
PF4	311
PF5	312
PF6	313
PF7	314
PF8	315
PF9	316
PHYSICAL	225
PINK	226
PIPELINE	345
PLI	227
PMWINDOW	393
POOL	49
PRIMARY	141
PRINTER	228
PROCDEF	388
PROCESS	391
PROFDEF	283
PROGDEF	284

PROMPT	269
PRTNDEF	282
QUASIRENT	386
QUEUE	54
QUIESCE	140
QUIESCED	122
QUIESCING	48
RACFGID	41
RASINDSC	375
RBA	420
RDSA	156
READONLY	89
REBUILD	378
RECONNECT	379
RECOVERY	230
RED	229
REJECT	231
RELATED	263
RELEASE	304
RELEASESESS	232
REMOTE	112
REMOVE	114
REMOVING	121

REREAD	233
RESDEF	374
RESET	127
RESTYPE	376
REVERSE	371
RFILE	96
RPG	234
RQMDEF	404
RTADEF	273
RTRAN	51
SAM	35
SCOPETYP	377
SCS	235
SCSPRINT	346
SDSA	154
SECONDARY	142
SECURITY	236
SEQTERM	410
SESSDEF	285
SHR	237
SHUT	25
SHUTDOWN	272
SIGNID	40
SIGNON	61
SKIP	238

SOSCDSA	133
SOSECDSA	135
SOSERDSA	136
SOSESDSA	138
SOSEUDSA	134
SOSRDSA	139
SOSSDSA	137
SOSUDSA	132
SPECIFIC	239
STALLED	131
STANDARD	332
START	116
STARTIO	240
STARTUP	241
STAT	262
STATDEF	274
STRFIELD	242
SUM	147
SUSPEND	30
SYSDEFAULT	243
SYSDUMP	128
SYSGROUP	104
SYSTEM	28

Alphabetic EYUDA general values

TAKEOVER	24
TAPE	244
TARGET	264
TCPDEF	301
TCPIP	171
TDQDEF	286
TERMDEF	287
TERMID	39
TERMINAL	245
TERMINATE	271
THREADSAFE	387
THRESHOLD	34
TLX	347
TRANDEF	288
TRANDUMP	129
TRANID	38
TRANSACTION	246
TRANSIENT	247
TRNCLDEF	289
TRUE	7
TSMDEF	299
TSQDEF	290
TURQUOISE	248
TWAIT	381

TWX	348
TYPTMDEF	291
U	249
UDSA	80
UNASSIGNED	109
UNCONDREL	250
UNDERLINE	372
UPDATEONLY	251
USER	88
USERID	42
USERPROG	349
UTABL	98
VALID	5
VALUE	33
VB	252
VERIFY	253
VHS	15
VLS	9
VTAM	254
WAITING	47
WARMONLY	268
YELLOW	255
YES	1
3151TERM	409
3270	256
3270DBPR	408
3270DBTM	407

Alphabetic EYUDA general values

3270P	350
3270PRNT	406
3270TERM	405
3275	351
3277	352
3277CM	353
3284	354
3284CM	355
3286	356
3286CM	357
3600	358
3614	359
3650	360
3653	361
3767	362
3767C	363
3767I	364
3770	365
3770B	366
3770C	367
3770I	368
3790	369

EYUDA RESPONSE values in numerical order

This section lists the RESPONSE EYUDAs in numerical order.

Value	**EYUDA**
1024	OK
1025	SCHEDULED
1026	NOTFOUND
1027	NODATA
1028	INVALIDPARM
1029	FAILED
1030	ENVIRONERROR
1031	NOTPERMIT

1032	BUSY
1033	SERVERGONE
1034	NOTAVAILABLE
1035	VERSIONINVL
1036	INVALIDCMD
1037	WARNING
1038	TABLEERROR
1039	INCOMPATIBLE
1040	INUSE
1041	INVALIDATA
1042	DUPE

EYUDA RESPONSE values in alphabetic order

This section lists the RESPONSE EYUDAs in alphabetic order.

EYUDA	**Value**
1032	BUSY
1042	DUPE
1030	ENVIRONERROR
1029	FAILED
1039	INCOMPATIBLE
1040	INUSE
1041	INVALIDATA
1036	INVALIDCMD
1028	INVALIDPARM
1027	NODATA
1034	NOTAVAILABLE
1026	NOTFOUND
1031	NOTPERMIT
1024	OK
1025	SCHEDULED
1033	SERVERGONE
1038	TABLEERROR
1035	VERSIONINVL
1037	WARNING

EYUDA REASON values in numerical order

This section lists the REASON EYUDAs in numerical order.

Numerical EYUDA REASON values

Value	EYUDA
1280	THREAD
1281	OBJECT
1282	CONTEXT
1283	RESULT
1284	COUNT
1285	LENGTH
1286	FILTER
1287	NOTFILTER
1288	FORWARD
1289	BACKWARD
1290	POSITION
1291	DELAY
1292	NOTIFICATION
1293	SIGNONPARM
1294	SCOPE
1295	RESOURCE
1296	FROM
1297	TO
1298	INTO
1299	CRITERIA
1300	BY
1301	ACTION
1302	ECB
1303	SENTINEL
1304	FEEDBACK
1305	EVENT
1306	TOKEN
1307	MODIFY
1308	VIEW
1309	FIELDS
1310	ATTRIBUTE
1311	FROMCV
1312	TOCHAR
1313	FROMCHAR
1314	TOCV
1315	PARM

1316	PARMLEN
1317	SUMOPT
1318	TYPE
1319	DATALENGTH
1320	SOLRESOURCE
1321	SOCRESOURCE
1322	SOERESOURCE
1323	MAINTPOINT
1324	SYSNOTACT
1325	SYSLVLBAD
1326	SYSNOTLCL
1327	CICSRELBAD
1328	ARMNOTREG
1329	ARMNOTACT
1330	ARMPOLCHK
1331	ABENDED
1332	CPSMSYSTEM
1333	CPSMVERSION
1334	CPSMAPI
1335	NOTSUPPORTED
1336	NOTVSNCONN
1337	INVALIDATTR
1338	APITASKERR
1339	CPSMSERVER
1340	APITASK
1341	PLEXMGR
1342	REQTIMEOUT
1344	AREATOOSMALL
1345	USRID
1348	VERSION
1352	FILTERMATCH
1353	INVALIDOBJ
1354	INVALIDVER
1355	TASKDATAKEY
1356	INVALIDVERB
1357	NOSTORAGE
1358	NOSERVICE

Numerical EYUDA REASON values

1359	EXCEPTION
1360	INVALIDEVT
1361	DATAERROR
1362	CMAS
1363	FIRST
1364	NEXT
1365	EXPIRED
1366	WORKLOAD

EYUDA REASON values in alphabetic order

This section lists the REASON EYUDAs in alphabetic order.

EYUDA	**Value**
1331	ABENDED
1301	ACTION
1340	APITASK
1338	APITASKERR
1344	AREATOOSMALL
1329	ARMNOTACT
1328	ARMNOTREG
1330	ARMPOLCHK
1310	ATTRIBUTE
1289	BACKWARD
1300	BY
1327	CICSRELBAD
1362	CMAS
1282	CONTEXT
1284	COUNT
1334	CPSMAPI
1339	CPSMSERVER
1332	CPSMSYSTEM
1333	CPSMVERSION
1299	CRITERIA
1361	DATAERROR
1319	DATALENGTH
1291	DELAY
1302	ECB
1305	EVENT

1359	EXCEPTION
1365	EXPIRED
1304	FEEDBACK
1309	FIELDS
1286	FILTER
1352	FILTERMATCH
1363	FIRST
1288	FORWARD
1296	FROM
1313	FROMCHAR
1311	FROMCV
1298	INTO
1337	INVALIDATTR
1360	INVALIDEVT
1353	INVALIDOBJ
1354	INVALIDVER
1356	INVALIDVERB
1285	LENGTH
1323	MAINTPOINT
1307	MODIFY
1364	NEXT
1358	NOSERVICE
1357	NOSTORAGE
1287	NOTFILTER
1292	NOTIFICATION
1335	NOTSUPPORTED
1336	NOTVSNCONN
1281	OBJECT
1315	PARM
1316	PARMLEN
1341	PLEXMGR
1290	POSITION
1342	REQTIMEOUT
1295	RESOURCE
1283	RESULT
1294	SCOPE
1303	SENTINEL

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1293	SIGNONPARM
1321	SOCRESOURCE
1322	SOERESOURCE
1320	SOLRESOURCE
1317	SUMOPT
1325	SYSLVLBAD
1324	SYSNOTACT
1326	SYSNOTLCL
1355	TASKDATAKEY
1280	THREAD
1297	TO
1312	TOCHAR
1314	TOCV
1306	TOKEN
1318	TYPE
1345	USRID
1348	VERSION
1308	VIEW
1366	WORKLOAD

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CICS Transaction Server for z/OS

CICS Transaction Server for z/OS Release Guide	GC34-5701
CICS Transaction Server for z/OS Migration Guide	GC34-5699
CICS Transaction Server for z/OS Installation Guide	GC34-5697
CICS Transaction Server for z/OS Program Directory	GI10-2525
CICS Transaction Server for z/OS Licensed Program Specification	GC34-5698

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