

CICS® Transaction Server for VSE/ESA™



# CICS-Supplied Transactions

*Release 1*



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**Note!**

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 185.

**Fifth Edition (September 2005)**

This edition applies to Release 1 of CICS Transaction Server for VSE/ESA, program number 5648-054, and to all subsequent versions, releases, and modifications until otherwise indicated in new editions. Make sure you are using the correct edition for the level of the product.

The CICS for VSE/ESA Version 2.3 edition remains applicable and current for users of CICS for VSE/ESA Version 2.3.

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## Chapter 3. CEBT—master terminal (alternate CICS)

Use CEBT to control an alternate CICS system in an extended recovery facility (XRF) environment. For information about XRF, see the *CICS XRF Guide*.

You can start this transaction only at the operating system console. Starting a transaction at the system console is described in “The VSE system console as a CICS terminal” on page 7.

**Minimum abbreviation of keywords:** The CEBT command accepts as few characters of a keyword as needed to uniquely identify it within the request. An exception to this rule is the SHUTDOWN keyword, for which the minimum abbreviation is SHUT.

In the syntax displays on your screen and in this book, the minimum permitted abbreviation is given in uppercase characters, and the rest of the keyword in lowercase characters.

### CEBT INQUIRE and SET commands

The CEBT INQUIRE and SET commands allow you to query or set:

- Auxiliary trace (CEBT INQUIRE|SET AUXTRACE)
- The transaction dump data set (CEBT INQUIRE|SET DUMP)
- Internal tracing (CEBT INQUIRE|SET INTTRACE)
- Surveillance or ‘tracking’ of the active CICS system by the alternate CICS system (CEBT INQUIRE|SET SURVEILLANCE)
- Takeover from the active CICS system by the alternate CICS system (CEBT INQUIRE|SET TAKEOVER)

Descriptions follow of the CEBT INQUIRE and SET commands in alphabetic order of the name of the resource.

### CEBT INQUIRE AUXTRACE

Return information about the status of auxiliary trace.

▶—CEBT Inquire AUXtrace—◀

#### Context

Auxiliary trace entries are made to a pair of CICS-controlled SAM data sets, ‘A’ and ‘B’.

CEBT INQUIRE AUXTRACE tells you:

- Which of the auxiliary trace data sets is active, AUX(DFHAUXT) or AUX(DFHBUXT)
- Whether an auxiliary trace is started, stopped, or paused.
- Whether automatic switching is to occur when the current data set is full.

For background information about auxiliary tracing, see the *CICS Problem Determination Guide*.

#### Output

##### ALL

Automatic switching occurs as necessary until the end of this CICS session without the need for operator intervention.

##### AUX (DFHAUXT|DFHBUXT)

displays the name of the current auxiliary data set. This value is blank if there is no auxiliary trace data set.

##### NEXt

Automatic switching occurs when the current trace data set is full, but not subsequently.

##### NOSwitch

Switching does not occur without operator intervention.

##### PAUse

Auxiliary tracing has stopped, but the trace data set has been left open. A subsequent START request causes trace entries to be written immediately following those that were written before the PAUSE request.

##### STAr

Auxiliary tracing is in progress.

##### STOp

Auxiliary tracing has stopped.

---

## CEBT INQUIRE DUMP

Retrieve information about the CICS transaction dump data sets.

►►—CEBT Inquire DUmP—◄◄

### Context

CEBT INQUIRE DUMP tells you which dump data set (A or B) is currently open.

For general information about dumps, see the *CICS Problem Determination Guide*.

### Output

#### AUToswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

#### CLOsed

The active CICS dump data set is closed.

#### DUMp(DFHDMPA|DFHDMPB)

Displays the name of the active dump data set.

#### NOAutoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

#### OPEn

The active CICS dump data set is open.

---

## CEBT INQUIRE INTTRACE

Show the status of CICS internal tracing.

►►—CEBT Inquire INttrace—◄◄

### Context

CEBT INQUIRE INTTRACE tells you whether CICS internal tracing is in progress.

### Output

#### STArT

CICS internal tracing is in progress.

#### STOpped

CICS internal tracing is not in progress.

---

## CEBT INQUIRE SURVEILLANCE

Display whether surveillance (or tracking) of the active CICS system by the alternate CICS system is ON or OFF.

```
▶▶—CEBT Inquire SURveillance—▶▶
```

### Output

#### OFF

No surveillance of the active CICS by the alternate CICS is being performed.

#### ON

Surveillance of the active CICS by the alternate CICS is being performed.

---

## CEBT INQUIRE TAKEOVER

Display whether any takeover from the active CICS system by the alternate CICS system is to be automatic, manual, or command-driven.

```
▶▶—CEBT Inquire Takeover—▶▶
```

### Output

#### AUTOmatic

No operator approval, or intervention, is needed for a takeover when the surveillance signal of the active system is lost.

#### COMMand

Takeover occurs only when a CEBT PERFORM TAKEOVER command is issued.

#### MANual

The operator is asked to approve a takeover if the alternate system cannot detect the surveillance signal of the active system.

The *CICS XRF Guide* tells you more about these command options.

---

## CEBT PERFORM commands

The CEBT PERFORM commands allow you to:

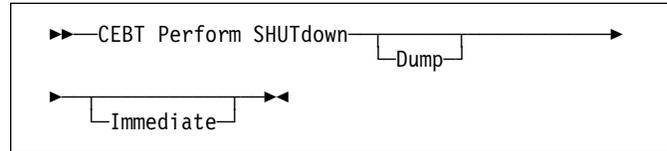
- Shut down the alternate CICS system (CEBT PERFORM SHUTDOWN)
- Request a dump of the alternate CICS and continue processing (CEBT PERFORM SNAP)
- Cause the alternate CICS to take over from the active CICS (CEBT PERFORM TAKEOVER)

Descriptions follow of the CEBT PERFORM commands in alphabetic order.

---

## CEBT PERFORM SHUTDOWN

Shut down the alternate CICS system in an XRF complex.



### Context

If you enter CEBT PERFORM SHUTDOWN, all active system tasks are allowed to finish, and the alternate CICS system signs off normally from the CICS availability manager (CAVM) data set.

### Options

#### Dump

causes a dynamic storage dump to be produced when the shutdown is complete.

#### Immediate

causes the alternate CICS system to be shut down immediately, terminating all active tasks. The alternate CICS signs off abnormally from the CAVM data set. This can cause the primary (active) CICS system to abend if tasks are still running.

## CEBT PERFORM SNAP

Cause a “snapshot” dump of the alternate CICS system to be taken while CICS continues to run.

All CEBT PERFORM SNAP requests result in an SDUMP on a VSE dump library or onto SYSLST, depending on the OPTION SYSDUMP or NOSYSDUMP statement in the alternate CICS system’s startup JCL.

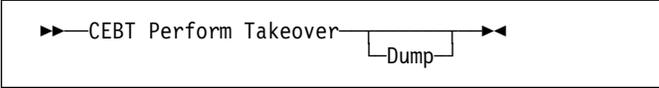
The use of CEBT PERFORM SNAP prevents all other tasks from running on the alternate system, and could delay takeover or recovery after takeover.



▶▶—CEBT Perform SNap—▶▶

## CEBT PERFORM TAKEOVER

The CEBT PERFORM TAKEOVER command initiates a takeover by the alternate CICS system, causing the active CICS system to sign off abnormally.



▶▶—CEBT Perform Takeover—▶▶  
 └─Dump─┘

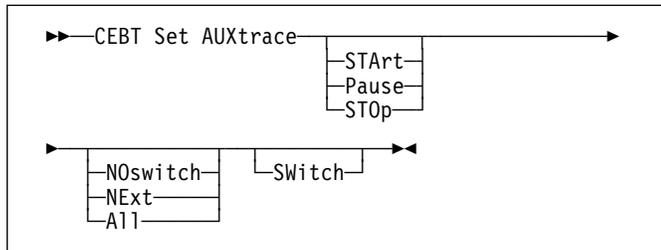
### Options

#### Dump

sends a message to the active CICS system requesting it to take a system dump after it has signed off abnormally from the CAVM data set. This request is not honored if the active CICS fails before the dump can be taken.

## CEBT SET AUXTRACE

Change auxiliary tracing options.



### SWitch

specifies that an immediate switch from the current auxiliary trace data set is to be made to the alternate trace data set.

### Context

You can start, stop, or pause tracing, and specify that automatic switching of the auxiliary data set is to occur when needed. You can use the switch option to change the data set.

For information about using traces, see the *CICS Problem Determination Guide*.

### Options

#### All

specifies that automatic switching between the two auxiliary trace data sets is to occur as necessary until the end of this CICS session, without the need for operator intervention.

#### NExt

Automatic switching of the auxiliary trace data set is to occur when the current trace data set is full, but not subsequently.

#### NOswitch

Switching between the auxiliary trace data sets is not to occur without operator intervention.

#### Pause

Auxiliary tracing is to stop, but the data set is to remain open. A subsequent START request causes trace entries to be written immediately following those that were written before the PAUSE request.

#### STArt

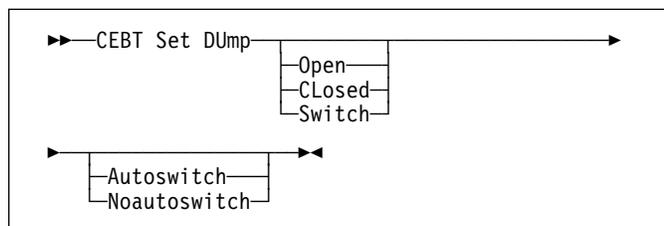
CICS is to start auxiliary tracing and open the auxiliary trace data set if it is currently closed.

#### STOp

CICS is to stop auxiliary tracing and close the auxiliary trace data set. A subsequent START request causes new trace entries to be written at the start of the data set, thereby overwriting the trace entries that were written before the STOP request.

## CEBT SET DUMP

Change the attributes of a CICS transaction dump data set.



### Context

Using CEBT SET DUMP, you can open or close the active CICS dump data set, and specify whether or not the automatic switch to the inactive dump data set is to occur when the active dump data set is full. Using CEBT SET INTTRACE, you can start and stop CICS internal tracing for the alternate CICS system.

For information about using dumps, see the *CICS Problem Determination Guide*.

### Options

#### Autoswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

#### CLosed

The active CICS dump data set is closed.

#### Noautoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

#### Open

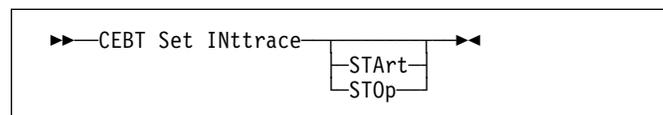
The active CICS dump data set is opened.

#### Switch

The currently active dump data set is to become inactive, and the currently inactive data set is to become active.

## CEBT SET INTTRACE

Switch CICS internal tracing on or off.



### Context

Using CEBT SET INTTRACE, you can start and stop CICS internal tracing for the alternate CICS system.

### Options

#### STArt

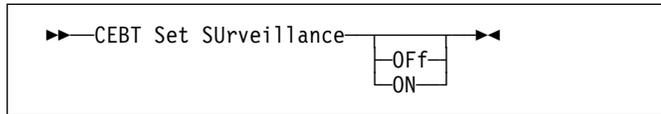
CICS internal tracing is started.

#### STOp

CICS internal tracing is stopped.

## CEBT SET SURVEILLANCE

Set surveillance (or tracking) of the active CICS by the alternate CICS on or off.



### Options

#### OFF

Surveillance of the active CICS system by the alternate CICS is to be stopped.

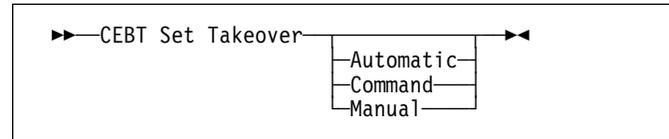
#### ON

Surveillance of the active CICS system by the alternate CICS is to be started.

For more information about surveillance, see the *CICS XRF Guide*

## CEBT SET TAKEOVER

Set takeover from the active CICS system by the alternate CICS system to be automatic, manual, or command-driven.



### Options

#### Automatic

Takeover is to occur automatically.

#### Command

Takeover is to be by command.

#### Manual

Takeover is to be manual.

The *CICS XRF Guide* tells you more about these command options.

## Chapter 4. CECI—command-level interpreter

Use CECI, which invokes the CICS command-level interpreter, to enter an EXEC CICS command, check its syntax, and modify it if necessary. In most cases, you can also process the command.

For programming information on each EXEC CICS command, see the *CICS Application Programming Reference* manual or the *CICS System Programming Reference* manual.

For details of how to use the CECI transaction, see the *CICS Application Programming Guide*, which includes an example of a complete session with CECI.

Start the transaction by entering CECI on the command line of the screen, as follows:

CECI

Press ENTER. You get a list of all EXEC CICS commands.

```

STATUS:  ENTER ONE OF THE FOLLOWING

ABend      DEQ      INquire   REceive    STARTBr
Acquire    DISAbLe  Issue     RELEase    SUSpend
Adress     DISCard  Journal   RESEtBr   SYNpoint
ALlocate   DUMp      LiNk      RESync    Trace
ASktime    ENAbLe    LoAd      RETRIeve  Unlock
ASSign     ENDbR     MonItor   RETUrN    VerIfy
BIf        ENQ      PERform   REWRIte   WAIt
BUild      ENtER     POInt    ROute     WAItCics
CAnceL     EXtRact   POP       SEnD      WRItE
ChAnge     FEPl     POSt      SEt       WRItEQ
COLlect    FOrmatTIme  PuRge    SIGNOff   Xctl
CONnect    FREe     PuSh     SIGNON
CONVerse   FREEMain  Query    SPoolCloSe
CReate     Gds      REAd      SPoolOpen
DELAy     GEtmain  REAdNext  SPoolReAd
DELETE     Handle  REAdPrev  SPoolWRite
DELETEQ   Ignore   REAdQ     StARt

PF 1 HELP 2 HEX 3 END 4 EIB 5 VAR 6 USER          9 MSG

```

Figure 3. CECI transaction: initial screen

If you then enter the command or its abbreviation on the top line and press ENTER, you get a complete display of the syntax for that command. See, for example, the following screen for the EXEC CICS RETRIEVE command:

```

RETR
STATUS:  ABOUT TO EXECUTE COMMAND                NAME=
EXEC CICS  RETRIeve
< Set() | Into() >
< Length() >
< RTermsid() >
< RTermid() >
< Queue() >
< Wait >

PF 1 HELP 2 HEX 3 END 4 EIB 5 VAR 6 USER 7 SBH 8 SFH 9 MSG 10 SB 11 SF

```

Figure 4. CECI transaction: RETRIEVE command screen

Alternatively, you can enter CECI together with the name of the command in which you are interested, and bypass the full list of commands; for example:

CECI asktime

In both cases, you can generally go on to check the syntax of the command, change it if necessary, and then process the command.

Many CICS system programming commands use CVDA values, and CECI shows numeric equivalents for these. See the *CICS System Programming Reference* manual for programming information, including a “translation” of these numeric values to their alphabetic values.

### The HELP panel

If you press the help key (PF1), the following panel is displayed:

```

GENERAL HELP INFORMATION

Main Panel: Enter command on top line and press ENTER to execute.
Options can be abbreviated to the minimum that makes them unique.
? before command gives COMMAND SYNTAX CHECK and prevents execution.
Variables Panel: long values are truncated. To see the expanded version,
place cursor under name and press ENTER.

PF KEY HELP INFORMATION

PF01  HELP  Displays this help panel
PF02  HEX   Switches operands between hex and character
PF03  END   Ends the session, returning to CICS
PF04  EIB   Displays the EXEC INTERFACE BLOCK
PF05  VAR   Displays the Variables panel
PF06  USER  Shows the User Display
PF07  SBH   Scrolls back half a page
PF08  SFH   Scrolls forward half a page
PF09  MSG   Displays any messages
PF10  SB    Scrolls back a whole page
PF11  SF    Scrolls forward a whole page
PF12  Undefined

USE ENTER to RETURN

```

Figure 5. CECI transaction: general HELP panel

## Command-level syntax-checking transaction (CECS)

Use the CECS transaction, which also invokes the command-level interpreter, to check the syntax of an EXEC CICS command, but not to process it.

Start the transaction by entering CECS on the command line of the screen, as follows:

```
CECS
```

Press ENTER. You get a list of all the EXEC CICS commands. This is similar to the CECI screen shown in Figure 3 on page 19. Enter the command or its abbreviation at the top of the screen (next to the ?) and press ENTER and you get a complete display of the syntax for that command.

Alternatively, you can enter CECS together with the name of the command in which you are interested, and bypass the full list of commands:

```
CECS command
```

For information how to use the CECI and CECS transactions, see the *CICS Application Programming Guide*.

## Chapter 5. CEDA—resource definition online

Use CEDA to define resources to your CICS system while the system is running. With CEDA, you can update both the CICS system definition (CSD) file and the running CICS system.

Start the transaction by entering CEDA on the command line of the screen. Press ENTER. You get the following screen (Figure 6), which shows the options available within CEDA.

```

ENTER ONE OF THE FOLLOWING
Add
ALter
Apend
ChEck
COpy
DEfIne
DELeTe
DIsplay
Expand
Install
Lock
Move
REMove
REName
UNlock
USerdefine
View

SYSID=C141 APPLID=IYAHZCCV
PF 1 HELP      3 END      6 CRSR      9 MSG      12 CNCL

```

Figure 6. CEDA transaction: initial screen

CEDA provides the following functions:

- ADD** Adds a group name to a list, and creates a new list if the list did not already exist.
- ALter** Changes some of the attributes of an existing resource definition.
- Apend** Copies a list to another list.
- ChEck** Checks that the resource definitions within a group or list are consistent with one another.
- COpy** Copies one or more resource definitions.
- DEfIne** Creates a new resource definition on the CSD file.
- DELeTe** Erases one or more resource definitions from the CSD file.
- DIsplay** Displays one or more lists or groups on a full-screen panel.
- Expand** Shows the resource definitions in one or more groups on a full-screen panel.
- Install** Dynamically makes one or more resource definitions available to an active CICS system.
- Lock** Assures exclusive access to a group or list by restricting update and delete access to a single operator identifier.
- Move** Moves one or more resource definitions from one named group to another.
- REMove** Removes a group name from a list.

- REName** Renames a resource definition.
- UNlock** Removes a lock on a group or list which was previously put there by a CEDA LOCK command.
- USerdefine** Instead of using CICS-supplied default values with the DEFINE command, you can set your own defaults and use the USERDEFINE command to create a new resource definition on the CSD file.
- View** Lets you look at the resource definition attributes.

This section briefly describes each of these functions and their syntax. For guidance on how to use CEDA, see the *CICS Resource Definition Guide*.

If you enter DEF on the command line and press ENTER, you get the screen shown in Figure 7 which lists the resources:

```

DEF
ENTER ONE OF THE FOLLOWING
Connection
File
Lsrpool
Mapset
PARTitionset
PARTNer
PROfIne
PROgram
SessIons
TERmInal
TRANClass
TRANSACTION
Typeterm

SYSID=C141 APPLID=IYAHZCCV
PF 1 HELP      3 END      6 CRSR      9 MSG      12 CNCL

```

Figure 7. CEDA transaction: DEFINE screen

If you enter INST on the command line and press ENTER, you get the screen shown in Figure 8 on page 22 which lists the resources:

```

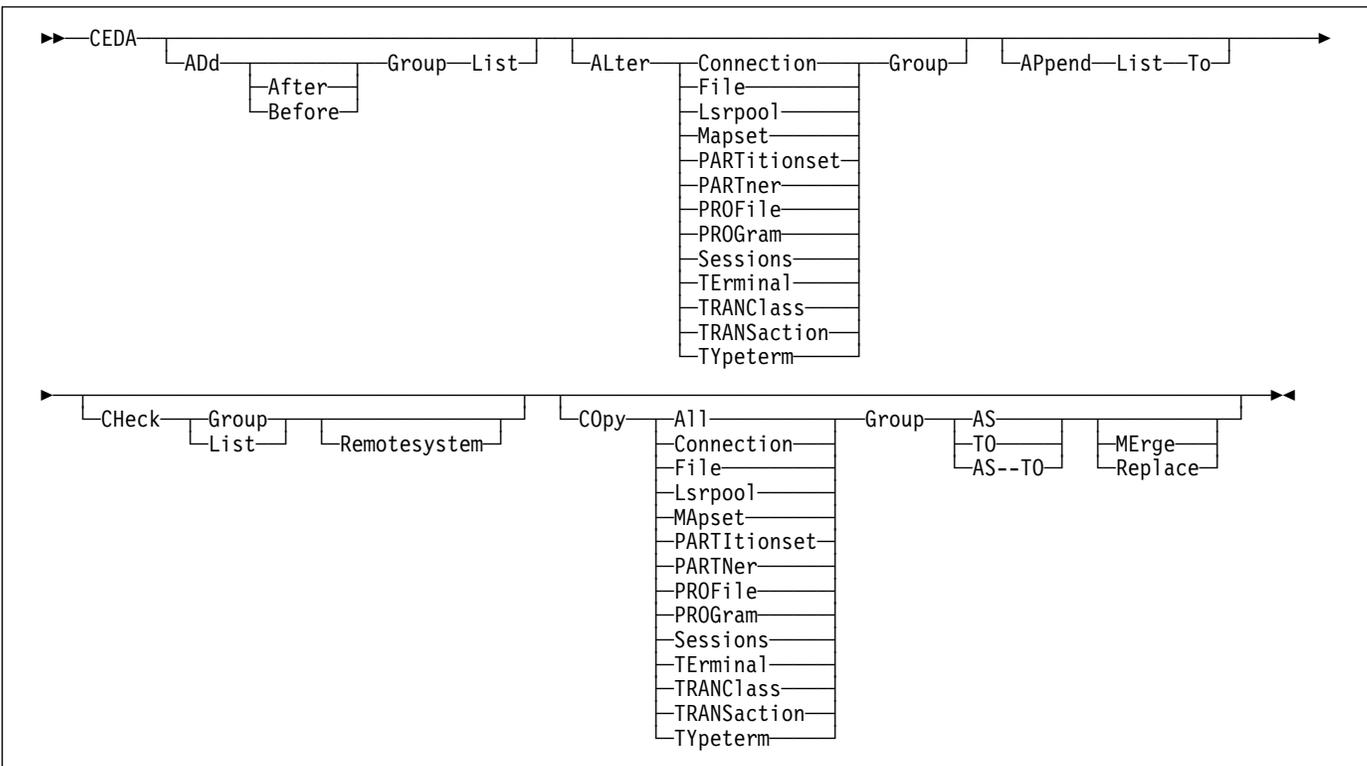
INST
OVERTYPE TO MODIFY
CEDA Install
All
Connection ==>
File ==>
Lsrpool ==>
Mapset ==>
PARTitionset ==>
PARTner ==>
PROFile ==>
PROGram ==>
TERminal ==>
TRANClass ==>
TRANSACTION ==>
TYpeterm ==>
Group

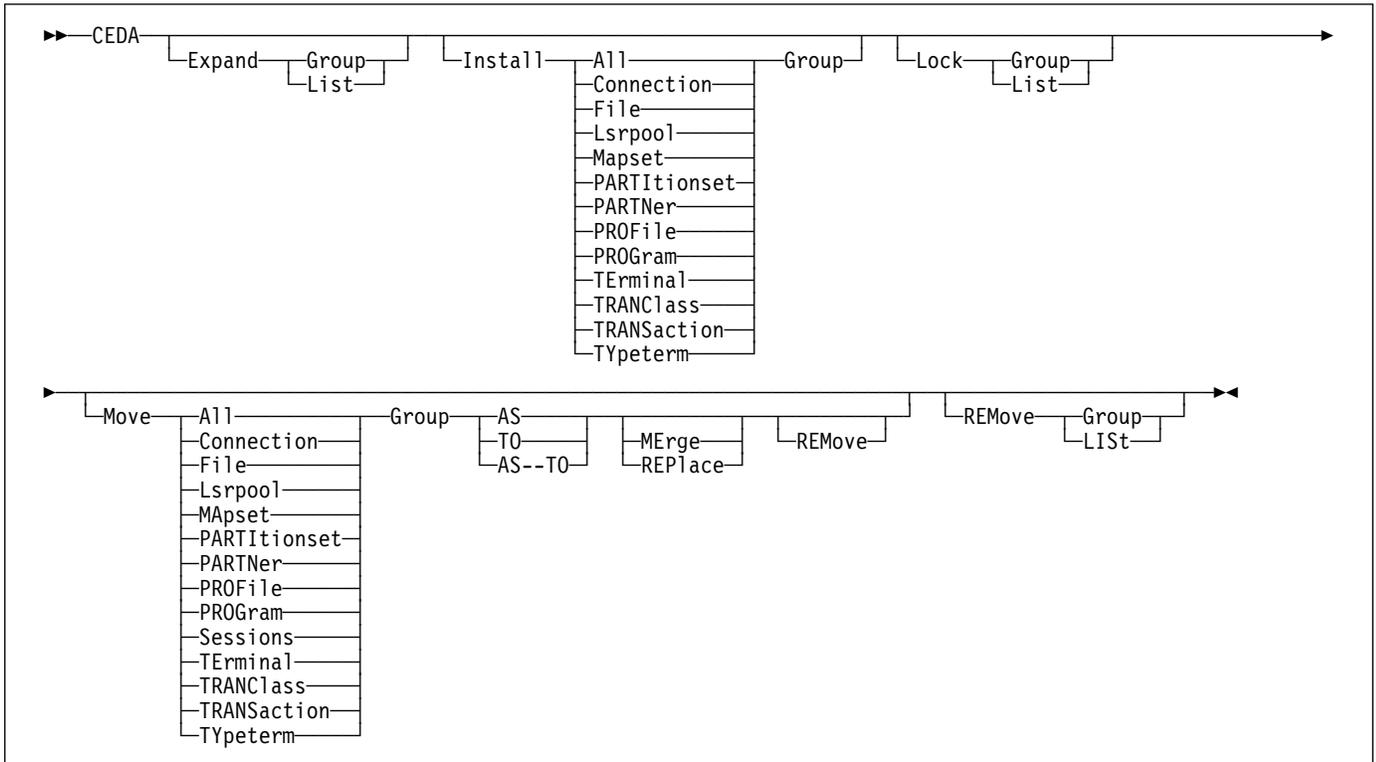
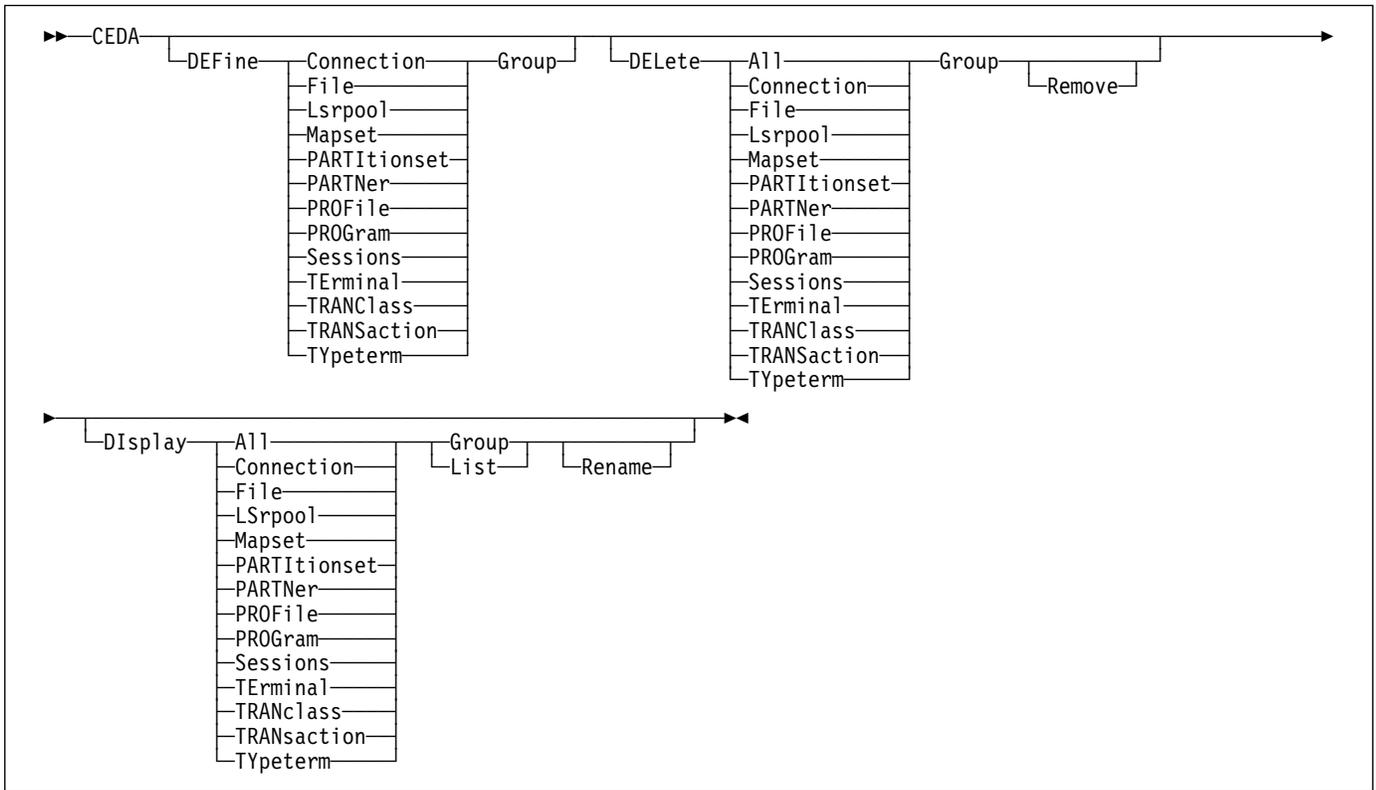
S No GROUP value has been previously specified so there is no current value
to assume.
SYSID=C141 APPLID=IYAHZCCV

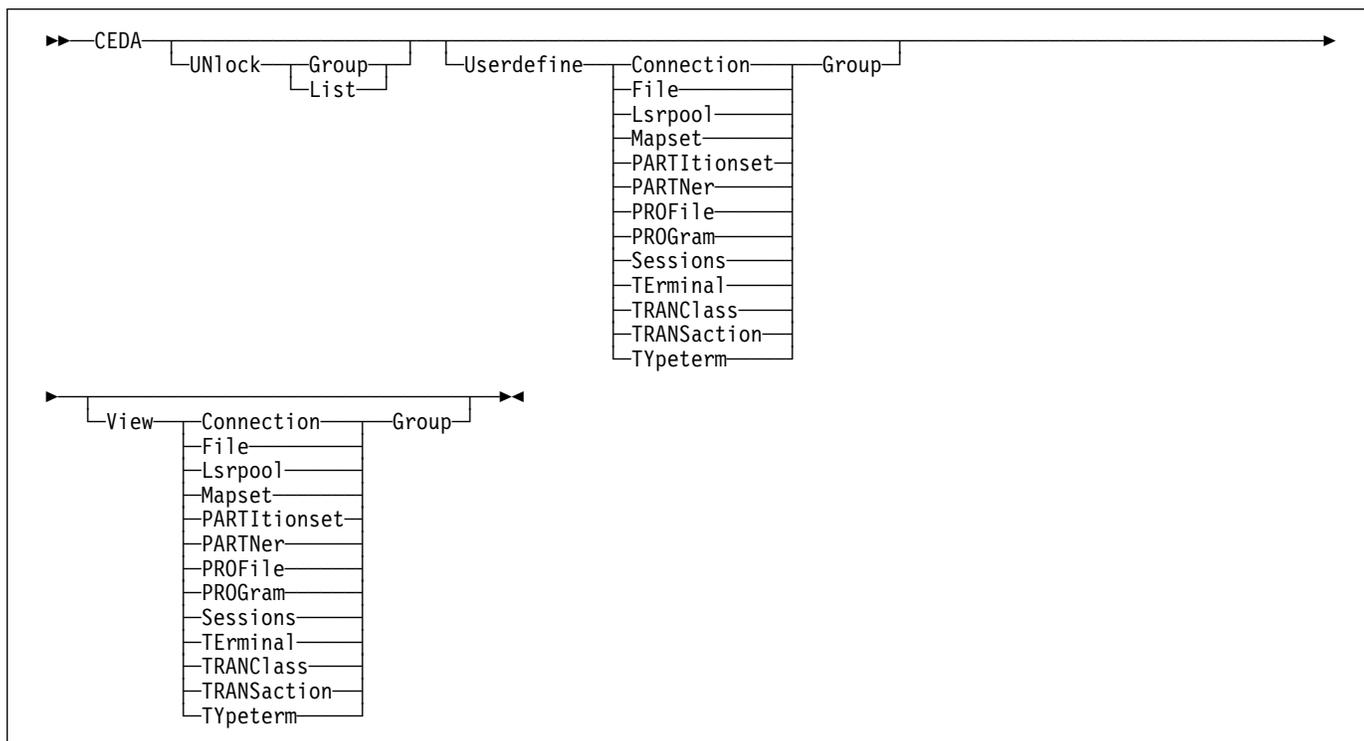
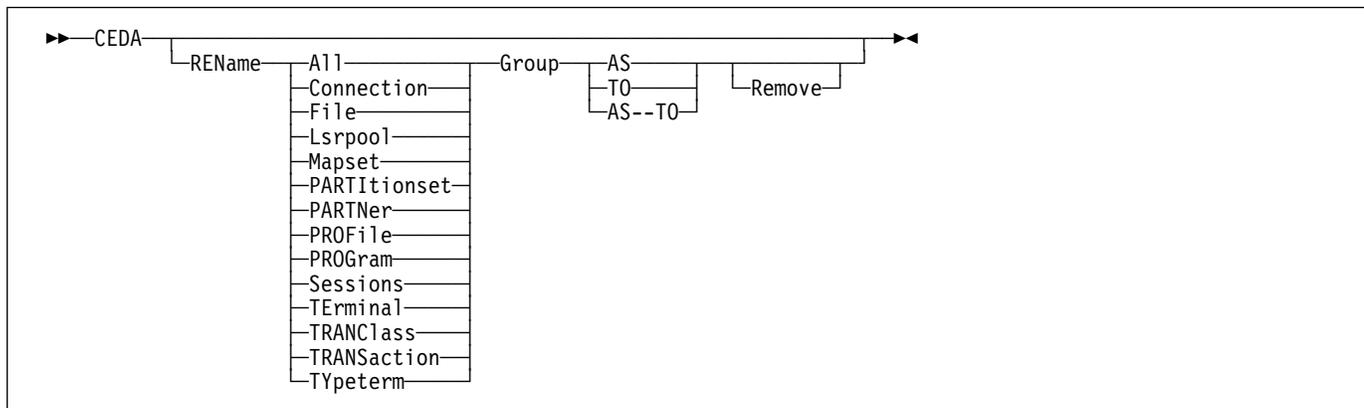
PF 1 HELP 3 END 6 CRSR 7 SBH 8 SFH 9 MSG 10 SB 11 SF 12 CNCL
    
```

Figure 8. CEDA transaction: INSTALL screen

**Command syntax:**







You can go directly to the working screen to make your changes by typing:

CEDA function resource\_type

For example:

CEDA DEF CONN

The CEDA keywords are as follows:

**AFTER**

Controls the placing of a group name in a list.

**ALL**

All resources are to be copied, deleted, displayed, installed, moved, or renamed.

**AS** The new name specified for a definition.

**BEFORE**

Controls the placing of a group name in a list.

**CONNECTION**

The remote system that your CICS system communicates with, using ISC or MRO.

**FILE**

The FILE definition describes to CICS file control the physical and operational characteristics of a file.

**GROUP**

Every resource definition must have a GROUP name. The resource definition becomes a member of the group and is installed in the CICS system when the group is installed. The GROUP name can be up to 8 characters in length.

**LIST**

The name of the list for which a specified group is to be added, appended, checked, displayed, expanded, locked, removed, or unlocked.

**LSRPOOL**

The local shared resources (LSR) pool is a reserve of data buffers, and strings which VSAM uses when processing access requests for certain files.

**MAPSET**

A series of different BMS maps.

**MERGE**

Duplicate definitions in TO group are not replaced.

**PARTITIONSET**

A table that describes to CICS how a display screen is to be partitioned.

**PARTNER**

The PARTNER definition enables CICS application programs to communicate via APPC protocols to a partner application program running on a remote logical unit. PARTNER is one of the four resources (the other three are PROFILE, CONNECTION, and SESSION) that you must specify to allow the System Application Architecture (SAA) communications interface to be used. A group of programs that control a number of transactions or partners.

**PROGRAM**

The name of the program that is to control a given transaction.

**REMOVE**

When the last resource in a group is deleted, REMOVE causes the group to be removed from any list that had contained it.

**RENAME**

Enables resource definitions within a group to be renamed by overtyping them in the resulting panel.

**REPLACE**

Duplicate definitions in TO group are replaced.

**SESSIONS**

The logical link of two systems that communicate using ISC or MRO.

**TERMINAL**

The definition of each terminal used in your CICS system. A terminal can be any device linked to your system, for example, visual display units, printers, facsimile machines. To simplify matters, it is possible to group resources that have common features by using TYPETERM and through AUTOINSTALL.

**TO** The new group to which a definition is to be copied.

**TRANCLASS**

The name of a user-defined class of transactions.

**TRANSACTION**

The name of the transaction. Within the transaction definition, you can specify options such as transaction priority and length of the transaction work area. You also add to the transaction name the names of related resources: PROGRAM, PROFILE, and PARTITIONSET.

**TYPETERM**

Some of the common attributes of your terminals. This has to be defined as part of the terminal definition.

**CSD compatibility panel**

Figure 9 shows a normal ALTER panel with one attribute (PRIMedsize) that is obsolete in CICS Transaction Server for VSE/ESA Release 1, protected as indicated by the colon symbol (:).

Use the PF2 key to change to the compatibility mode panel shown in Figure 10. PRIMedsize is now shown with the ==> symbols indicating that it can be modified. Use the PF2 key again to return to the normal panel.

See the *CICS Resource Definition Guide* for background information about the CSD compatibility panel.

```

ALTER TRANS
OVERTYPE TO MODIFY
CEDA Alter TRANsAction( ) CICS RELEASE = 0410
TRANsAction ==>
Group ==>
DEscriPtion ==>
PROGram ==>
TWAsize ==> 0-32767
PROFile ==>
PARTitionset ==>
STATus ==> Enabled | Disabled
PRIMedsize : 0-65520
TASKDATAloc ==> Below | Any
TASKDATAkey ==> User | Cics
STORAgeclear ==> No | Yes
RUnaway ==> System | 0 | 500-2700000
SHutdown ==> Disabled | Enabled
REMOTE ATTRIBUTES
DYNAMIC ==> No | Yes
+ REMOTESystem ==> No | Yes
    
```

Figure 9. CEDA transaction: normal panel

```

OVERTYPE TO MODIFY
CEDA Alter COMPATIBILITY MODE
TRANsAction ==>
Group ==>
DEscriPtion ==>
PROGram ==>
TWAsize ==> 0-32767
PROFile ==>
PARTitionset ==>
STATus ==> Enabled | Disabled
PRIMedsize ==> 0-65520
TASKDATAloc ==> Below | Any
TASKDATAkey ==> User | Cics
STORAgeclear ==> No | Yes
RUnaway ==> System | 0 | 500-2700000
SHutdown ==> Disabled | Enabled
REMOTE ATTRIBUTES
DYNAMIC ==> No | Yes
+ REMOTESystem ==>
    
```

Figure 10. CEDA transaction: compatibility mode panel

## CEDA HELP panels

If you press the help key (PF1), the following panels are displayed:

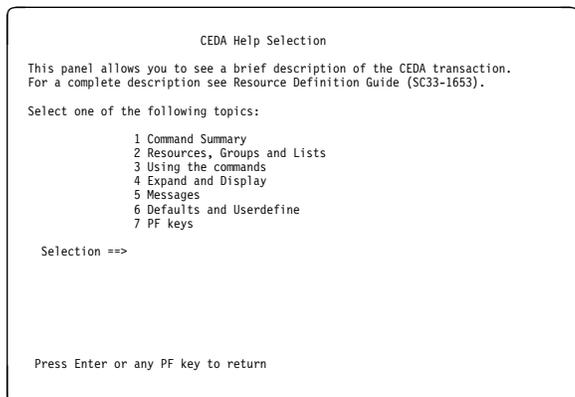


Figure 11. CEDA transaction: initial HELP panel

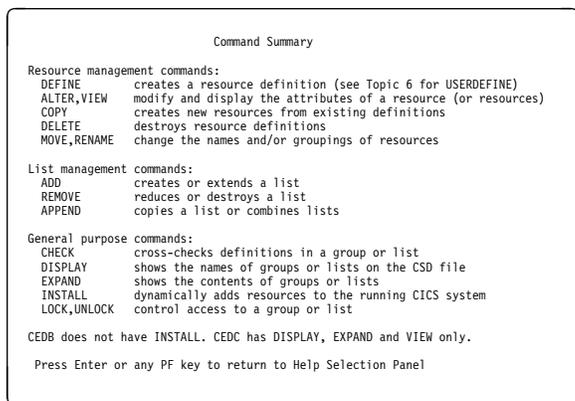


Figure 12. CEDA transaction: HELP Panel 1

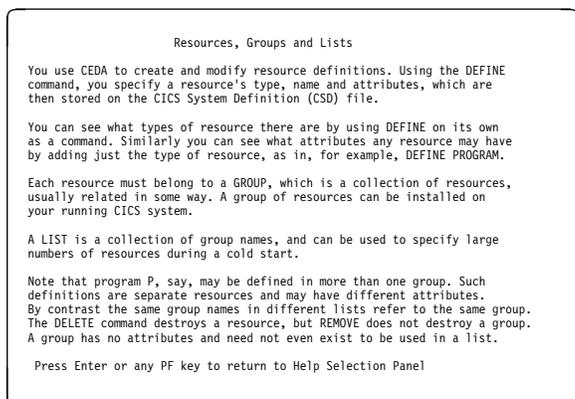


Figure 13. CEDA transaction: HELP Panel 2

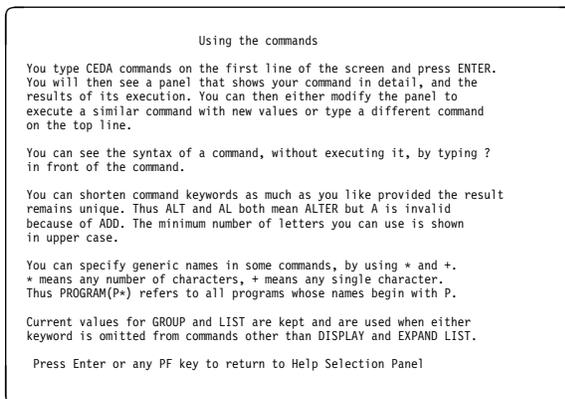


Figure 14. CEDA transaction: HELP Panel 3

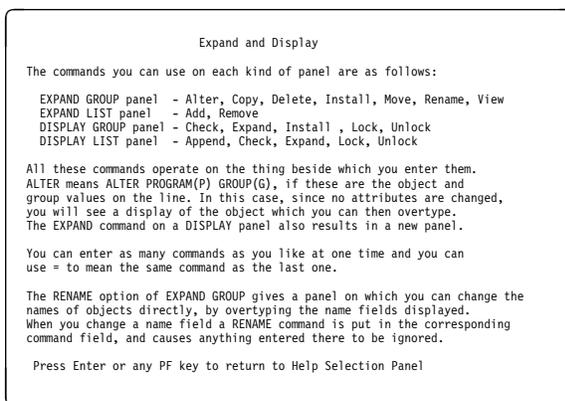


Figure 15. CEDA transaction: HELP Panel 4

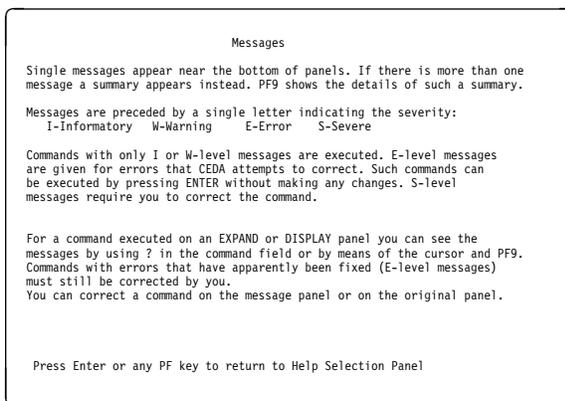


Figure 16. CEDA transaction: HELP Panel 5

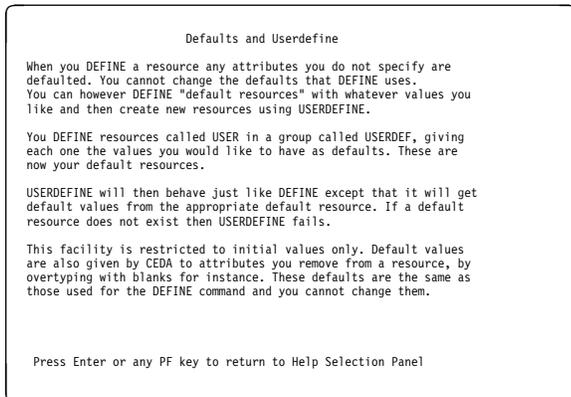


Figure 17. CEDA transaction: HELP Panel 6

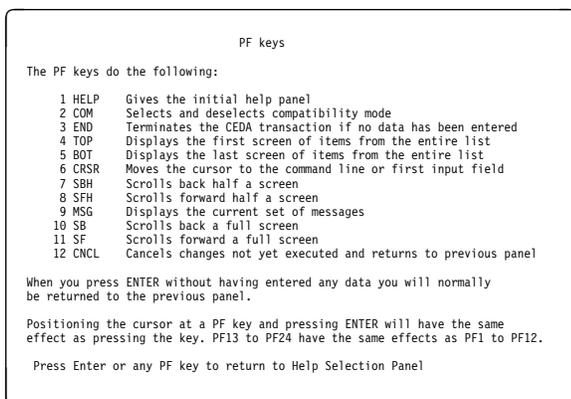


Figure 18. CEDA transaction: HELP panel 7

## CEDB and CEDC

Two further resource definition transactions, CEDB and CEDC, allow you to use some, but not all, of the functions of CEDA.

### CEDB

When you use the CEDB transaction, the INSTALL command is not available to you. This means that you can update the CSD, but not the running CICS system.

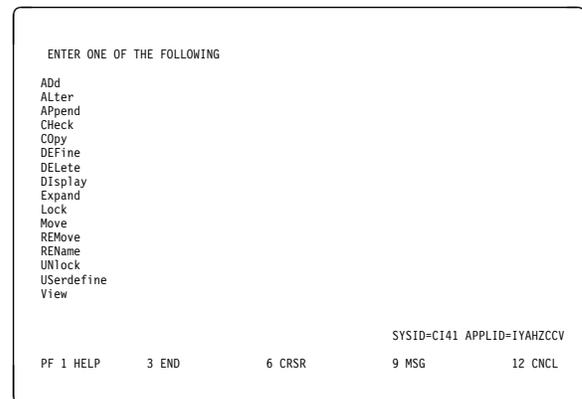


Figure 19. CEDB transaction: initial screen

### CEDC

The CEDC transaction allows you only to look at data on the CICS system definition (CSD) file. You cannot update either the CSD file or the running CICS system. The only options that are available are DISPLAY, EXPAND, and VIEW.

For background information about the CEDA, CEDB, and CEDC transactions, see the *CICS Resource Definition Guide*.



## Chapter 6. CEDF—execution diagnostic facility

Use CEDF, which invokes the CICS execution diagnostic facility (EDF), to test your command level application programs interactively without having to supply special program testing procedures.

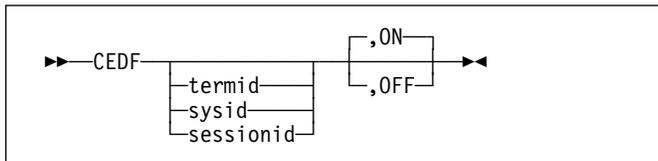
CEDF allows you to intercept your application programs at the program's initiation, at each CICS command, and at the program termination. CEDF helps you to isolate and focus on problems in your application programs.

For guidance on how to use the CEDF transaction, see the *CICS Application Programming Guide*.

You must ensure that the EDF resource definitions are installed. These resource definitions are provided in the IBM-supplied group, DFHEDF. For information about installing the resource definitions, see the *CICS Resource Definition Guide*.

You must also ensure that the terminal from which you run EDF is in transceive (ATI/TTI) status.

### Command syntax



### Command options

#### ON|OFF

specifies whether the EDF screen is to be switched ON or OFF. The default is ON. If you specify ON or OFF, you **must** enter the preceding comma, as shown in the following examples:

```

CEDF T33A
CEDF T33A ,OFF
CEDF ,ON
CEDF ,OFF
  
```

#### sessionid

specifies the session identifier used to test a transaction attached across an MRO, APPC, or LU6.1 session. All CICS commands processed by the attached transaction are monitored.

#### sysid

specifies the system identifier used to test a transaction across an MRO or APPC session.

#### termid

specifies the identifier of the terminal on which the transaction to be tested is being run. If you do not provide an identifier, the terminal at which you enter the CEDF transaction is assumed.

### Beginning an EDF session (single-screen mode):

To start an EDF session with a single terminal, clear the screen and enter the transaction identifier, CEDF. The EDF inputs and outputs are interleaved with those of the transaction. This is known as *single-screen mode*.

CEDF

When you press ENTER, the response is:

THIS TERMINAL: EDF MODE ON

Now clear the screen and enter the name of your transaction. Figure 20 shows the initial screen for a typical transaction using EDF.

```

TRANSACTION: ACCT PROGRAM: ACCT00 TASK: 0000054 APPLID: 00001349 DISPLAY: 00
STATUS: PROGRAM INITIATION

EIBTIME = 110343
EIBDATE = 09174
EIBTRMID = 'ACCT'
EIBTASKN = 54
EIBTRMID = '025L'

EIBCPOSN = 4
EIBCALEN = 0
EIBAITD = X'7D' AT X'00543F1E'
EIBFN = X'0000' AT X'00543F1F'
EIBRCODE = X'000000000000' AT X'00543F21'
EIBDS = '.....'
+ EIBREQID = '.....'

ENTER: CONTINUE
PF1 : UNDEFINED PF2 : SWITCH HEX/CHAR PF3 : END EDF SESSION
PF4 : SUPPRESS DISPLAYS PF5 : WORKING STORAGE PF6 : USER DISPLAY
PF7 : SCROLL BACK PF8 : SCROLL FORWARD PF9 : STOP CONDITIONS
PF10: PREVIOUS DISPLAY PF11: UNDEFINED PF12: UNDEFINED
  
```

Figure 20. CEDF transaction: initial screen

### Beginning an EDF session (dual-screen mode):

You can also use EDF in what is known as *dual-screen mode*; that is, using one terminal to monitor a transaction running at a second terminal.

This mode is started by adding the terminal identifier (termid) of the second terminal to the CEDF command at the first terminal:

```
CEDF tttt
```

The message that CEDF gives in response to this depends on whether there is already a transaction running on the second terminal. If the second terminal is not busy, the message displayed at the first terminal is:

```
TERMINAL tttt: EDF MODE ON
```

and nothing further will happen until a transaction is started on the second terminal, when the PROGRAM INITIATION display will appear.

If a transaction is already running on the second terminal, the message displayed at the first terminal is:

```
TERMINAL tttt: TRANSACTION RUNNING: EDF MODE ON
```

## CEDF—execution diagnostic facility

CEDF then picks up control at the next command processed and presents the appropriate display. At the first terminal, you can then follow the sequence of commands in the transaction running at the second terminal.

**Monitoring remote transactions:** In a multiregion operation (MRO) or an intersystem communication (ISC) environment (APPC only), you can use CEDF (in single screen mode only) for transactions that are defined in the terminal owning region (TOR) as remote. CICS automatically notifies the application owning region (AOR) that the transaction is to be run in EDF mode.

When the remote application ends, if your reply is YES, the terminal remains in EDF mode as usual. However, CICS deletes all the associated temporary storage queues, and none of the previous EDF screens or options is saved: you must type these again for the next transaction. Responding NO at the termination screen ends the EDF session in all participating regions.

**Note:** CICS supports EDF for remote transactions only when all the communicating regions are using CICS Transaction Server for VSE/ESA Release 1 or later.

**Invoking CEBR and CECI from CEDF:** See Figure 21 for an example of the screen from which CEBR and CECI can be invoked.

**Note:** If you are not authorized to use the CEBR or CECI transaction by the external security manager, a warning message will appear on the EDF panel. See the *CICS Security Guide* for information about security checking of transactions running under CEDF.

```
TRANSACTION: DLID PROGRAM: DLID    TASK: 0000049 APPLID: IYAHZCIB
ADDRESS: 00000000

WORKING STORAGE IS NOT AVAILABLE
ENTER:  CURRENT DISPLAY
PF1 : UNDEFINED      PF2 : BROWSE TEMP STORAGE PF3 : UNDEFINED
PF4 : EIB DISPLAY    PF5 : INVOKE CECI      PF6 : USER DISPLAY
PF7 : SCROLL BACK HALF PF8 : SCROLL FORWARD HALF PF9 : UNDEFINED
PF10: SCROLL BACK FULL PF11: SCROLL FORWARD FULL PF12: REMEMBER DISPLAY
```

Figure 21. Typical EDF display from which CEBR or CECI can be invoked

To invoke the CEBR transaction from the CEDF screen, press PF2. You can then use CEBR commands to browse temporary storage queues and to delete them. (CEBR commands are described briefly in Chapter 2, “CEBR—temporary storage browse” on page 9; for detailed guidance on using them, see the *CICS Application Programming Guide*.)

To invoke the CECI transaction from the CEDF screen, press PF5. You can then use CECI commands to display or alter resource status. (CECI commands are described briefly in Chapter 4, “CECI—command-level interpreter” on page 19; for detailed guidance on using them, see the *CICS Application Programming Guide*.)

## Chapter 7. CEMS–report controller (MT operator)

Use the report controller to manage the output of CICS transactions or batch programs destined for printing on a device owned by CICS. You can also use the report controller to submit batch jobs and to create reports from intrapartition transient data queues.

You must ensure that the RCF resource definitions are installed. These resource definitions are provided in the IBM-supplied group DFHRCF, and can be added to your CSD using the DFHCSDUP utility command UPGRADE USING(DFHCURCF) . For information about installing the resource definitions, see the *CICS Resource Definition Guide*.

CEMS is a pseudoconversational transaction that uses temporary storage and BMS, except when using the browse facility. You can only use CEMS from a 3270 family display terminal that has a screen width of 80 columns or more, and a screen depth of 24 lines or more.

Enter CEMS on the command line of the screen:

```
CEMS
```

You get the following display:

```

CEMS: 1          CICS REPORT CONTROLLER
Select one of the following options:
    1 Report selection.
    2 Printer selection.
    3 JCL report (job) selection.
    4 Transient data queue selection.
    5 Restart CXPB Transaction.
      CXPB Status:   Active

      Selection ==>

PF1=Help PF3=End ENTER=Continue.
```

Figure 22. CEMS transaction: initial screen

You can press the PF1 key to generate a help panel that lists the functions of CEMS.

For more guidance information on the CEMS command, see the *CICS Report Controller User's Guide*.

## CEMS-report controller transaction

## Chapter 8. CEMT—master terminal

Use the CEMT transaction to invoke all the master terminal functions.

The master terminal program provides dynamic user control of the CICS system. Using this function an operator can inquire and change the values of parameters used by CICS, after the status of the system resources, terminate tasks, and shut down the CICS system.

The following transactions are subsets of CEMT (that is, they contain some but not all of the functions of CEMT):

- CEBT for alternate CICS systems (see page 11)
- CEOT (see page 125)
- CEST (see page 131)

The CECI transaction (see page 19) also uses the same command interpreter as CEMT.

You can start CEMT from IBM 3270 family display devices or equivalent terminals or from the system console. Starting CEMT from the operating system console is described in “The VSE system console as a CICS terminal” on page 7. The description of CEMT throughout this section assumes, unless stated otherwise, that you are using a 3270 family display device or equivalent terminal.

To start CEMT, you can either enter the identifier CEMT on the command line by itself, or you can add options on the same line, separated by commas or blanks, to form a complete request.

If you start the transaction by entering CEMT by itself and pressing ENTER, you get a display that prompts you for more information, as described in “CEMT INQUIRE SYSTEM” on page 70.

### Starting the CEMT transaction

You can construct a CEMT request in stages, or you can enter a complete request in one go. The CEMT transaction checks the syntax of requests and diagnoses errors. If your request is syntactically correct, it is processed immediately. If your request cannot be processed because of severe syntax errors, the full syntax of your request is displayed.

If you put a question mark (?) in front of your request, the syntax of your request is displayed but it is not processed.

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If you put a minus sign (-) immediately following CEMT, and are using the master terminal transaction from the system console, CEMT will always display its results in abbreviated format, regardless of the number of objects returned on the

inquiry. Without the use of a minus sign, CEMT commands issued from the system console will display the results in expanded format if only a single object is returned.

After you have initiated the CEMT transaction, you need not reenter CEMT on subsequent requests, because the identifier is implied at the beginning of any further request. However, if you are using the system console, you must always start each master terminal request with CEMT.

Enter CEMT on the command line of the screen, as follows:

CEMT

Press the ENTER key. You get the following response:

```

STATUS:  ENTER ONE OF THE FOLLOWING

Discard
Inquire
Perform
Set

```

Figure 23. CEMT transaction: initial screen

This display prompts you to enter one of the keywords shown.

If you then type:

D

and press ENTER, you get the following screen:

```

D
STATUS:  ENTER ONE OF THE FOLLOWING

Autinstmodel
FENode
FEPOOL
FEPropset
FETarget
File
PArtnr
PROFile
PROGram
TClass
TRansaction

```

Figure 24. CEMT transaction: DISCARD screen

## CEMT—master terminal

If you type:

I

and press ENTER, you get the following screen:

```
I
STATUS: ENTER ONE OF THE FOLLOWING OR HIT ENTER FOR DEFAULT

AUTInstmodel  Journalnum  Vtam
AUTOinstall   MODename
AUXtrace      MONitor
Connection    Netname
DEletshipped  PARTner
DSAs          PROFile
DSName        PROGram
DUMpds        STATistics
Exci          SYDumPCODE
FEConnection  SYStem
FENode        TAsk
FEPool        TClass
FEPropset     TDqueue
FETarget      TERminal
FILE          TRAnSACTION
INttrace      TRDumPCODE
IRc           TSqueue
```

Figure 25. CEMT transaction: INQUIRE screen

If you type:

P

and press ENTER, you get the following screen:

```
P
STATUS: ENTER ONE OF THE FOLLOWING

DEletshipped
DUMp
Reset
SEcurity
SHUTdown
SNap
Statistics
```

Figure 26. CEMT transaction: PERFORM screen

If you type:

S

and press ENTER, you get the following screen:

```
S
STATUS: ENTER ONE OF THE FOLLOWING OR HIT ENTER FOR DEFAULT

AUTOinstall   Netname
AUXtrace      Program
Connection    STATistics
DEletshipped  SYDumPCODE
DSAs          SYStem
DSName        TAsk
DUMpds        TClass
FEConnection  TDqueue
FENode        TERminal
FEPool        TRAnSACTION
FETarget      TRDumPCODE
FILE          Vtam
INttrace
IRc
Journalnum
MODename
MONitor
```

Figure 27. CEMT transaction: SET screen

## System parameters

If you press ENTER without selecting one of the CEMT keywords, INQUIRE SYSTEM is assumed and you get a display of the system parameters. Full details are given in “CEMT INQUIRE SYSTEM” on page 70.

## Program function (PF) keys

When you start CEMT, the lower part of your display contains a list of PF keys. If your terminal does not have such keys, you can get the same effect by placing the cursor under a name in the list, and pressing ENTER.

Here is what the PF keys do:

- PF1** is a general HELP key. It also gives you a list of all the PF keys and what they do.
- PF3** ends this master terminal session by terminating the CEMT transaction. If, however, you use this key when you are modifying your display, say by keying in a new command, or by overtyping an old command, this key does not end your session; it is ignored.
- PF7** scrolls backward half a screen.
- PF8** scrolls forward half a screen.
- PF9** expands messages. If more than one message has been generated in response to your request, a message telling you how many messages have been generated appears near the bottom of the screen. PF9 lets you display all the messages on a separate display. Press ENTER to go back to your original display.
- PF10** scrolls backward a full screen.
- PF11** scrolls forward a full screen.

## Minimum abbreviation of keywords

CEMT accepts as few characters of a keyword as needed to uniquely identify it within the request. This means that you can enter the keyword TASK as TA or TAS, but you cannot use T, because it can be confused with TCLASS, TDQUEUE, TERMINAL, TRANSACTION, or TRDUMPCODE. You are prompted if the abbreviation you use is not unique. An exception to this rule is SHUTDOWN, for which you must specify at least SHUT.

In the syntax displays on your screen and in the railroad diagrams and syntax descriptions in this book, the minimum permitted abbreviation is given in uppercase characters, with the remainder in lowercase characters.

## ALL option

Many of the request formats contain the ALL option. For INQUIRE, this is the default. For example, if you inquire about terminals, you receive information about all terminals unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

ALL is not the default on a SET command, however. If you specify the ALL option on a SET command, any changes you request are made to all resources of the specified type that you are authorized to access.

If there are no resources of the type specified on the SET command, a response of NOT FOUND is given.

## CLASS option

When operating on terminals, transactions, and programs, the CLASS option can be used to identify the suffix of a TLT, XLT, or PLT. This limits the scope of the INQUIRE or SET commands to those resources defined in the specified table. Any resources whose definitions have not been installed are displayed as NOT FOUND. For information about the TLT, the XLT, and the PLT, see the *CICS Resource Definition Guide*.

## Family of resources (using \* and + symbols)

You can use the symbols \* and + as part of an identifier to specify a family of resources. \* represents any number of characters (including none), and + represents a single character, for example:

|         |   |
|---------|---|
| A*      | all identifiers beginning with A                  |
| *DATA*  | all identifiers containing the characters DATA    |
| TERM00+ | all 7-character identifiers starting with TERM00. |

Use of \* and + is restricted to selecting existing resources and cannot be used either to create a new set of resources or to discard resources.

**Note:** The INQUIRE command and the SET command may use the generic name in a different way. The following two examples illustrate the difference:

```
CEMT INQUIRE F(*) DSN(ABCD*)
```

lists all the data sets with a name beginning with ABCD.

```
CEMT SET F(*) DSN(ABCD) CLO
```

renames all your files as ABCD and closes them all.

You are strongly recommended not to use a generic name with the SET command.

**List of resource identifiers:** You can specify a list of resource identifiers, rather than a single one, separating the items in the list by commas or blanks. Any errors of syntax are reported.

```
CEMT SET TERMINAL(T01,T02,T03,T04) INSERVICE
```

You cannot use \* or + when the identifier is in a list of identifiers.

**Note:** If you use the comma (,) in the name of a resource identifier, you will not be able to use any commands that permit the use of lists of resources, because the comma will be treated as a list separator, and not as a part of a name.

## Subdefining resource groups

When you make an inquiry, you can subdefine a resource group by specifying one or more attributes of the group. For example:

```
CEMT INQUIRE TERMINAL ALL INSERVICE
```

displays the status of all terminals that are in service.

If the subdefined resource group has no members, CEMT returns a NOT FOUND response. For example, if all the files in the system are closed, the command:

```
CEMT INQUIRE FILE ALL OPEN
```

gives the NOT FOUND response. Similarly, if journal 14 is open for output, the command:

```
CEMT INQUIRE JOURNALNUM(14) CLOSED
```

gives the NOT FOUND response, because CEMT looks for a journal numbered 14 that is closed.

You cannot subdefine a resource group on the SET command in the same way. For example:

```
CEMT SET TERMINAL ALL INSERVICE PAGE
```

puts all terminals both in service **and** into page status.

However, you can manage such groups of resources by issuing an INQUIRE request, and overtyping the display produced.

## Overtyping a display

When you issue an INQUIRE request, you usually get a display that consists of status information for each resource in the specified group. The status information is displayed as a list of abbreviated keywords. You can move the cursor to some fields and change their contents by overtyping. When you press the ENTER key again, CICS reads the contents of all fields that have been changed, and processes any valid operations implied by the changes. If you make an invalid change, you get an error message, and the field is not changed.

When overtyping a field CEMT will accept and identify only as few characters as are necessary to uniquely identify the keyword within the valid options for that position. This is usually only one character.

On many of the status displays, the current status is displayed in certain positional fields at the right-hand side of the display. For some resources, the positional display

## CEMT—master terminal

appears only when the status of a particular resource is 'on'; for other resources, it appears only when the status is 'off'. You can overtype the current status (when it is either displayed or blank) to change it.

So, for example, if you type 'CEMT INQUIRE SYD', you get a display of the current settings of the entries in the system dump table. The various attributes of those entries are displayed in fields across the screen. If CICS is to be shut down after the occurrence of an error for this dump code, 'Shu' appears in the third field of attributes for that dump code. If CICS is not to be shut down, however, the 'Shu' space is left blank. If you want CICS to be shut down for this dump code, you can tab to that field and type 'shu' in that blank space in that field only.

To determine the sequence of the positional fields for a command, type a ? at the left of the command, as described below.

Whenever you overtype a display, not only is that particular action taken but all the status information is refreshed. You can avoid the overhead of a large number of table searches either by using the SET command, or by limiting your inquiry to a specific number of resources (either by using a 'wild card' in the search argument or by naming a range of resource identifiers).

## Tab key

The fields you can change are different in each display. You can detect them, however, by pressing the tab key repeatedly. This causes the cursor to jump from one field to the next.

## Using a ? to display syntax

If you enter a ? in the space on the extreme left of the command line, the syntax for that command appears on the screen. For example ?INQUIRE TERMINAL gives the list of options that you can receive from the inquiry command with the default highlighted. It also shows the sequence of the positional fields—this helps you determine the value of any blank fields. See Figure 28.

```
?INQ TERM
STATUS: COMMAND SYNTAX CHECK
CEMT Inquire Terminal()
< Class() | AL1 >
< Transaction() >
< Priority() >
< PAgeable | AUTopageable >
< Inservice | Outservice >
< ATi | NOAti >
< TTI | NOTTi >
< NETname() >
< ACquired | REleased >
< CReate | NOCreate >
< REMotesystem() >
```

Figure 28. Sample of screen showing the syntax of a INQUIRE command

A further use for the ? key is to select one resource item from a list, then check and change its options if required. This is done, for example, by entering CEMT INQUIRE TERM, which gives the screen in Figure 29.

```
INQ TERM
STATUS: RESULTS - OVERTYPE TO MODIFY
Ter(S208) Tra(CEMT) Pri( 000 ) Pag Ins Tti
Ter(S208) Tra(CEMT) Pri( 000 ) Pag Ins Ati Tti
Net(IGKS208 ) Acq
```

Figure 29. Sample of screen showing a list of terminals

Type a ? to the left of the second entry and press ENTER. This selects the second terminal, and displays the relevant information. The available command options of the SET TERM command are also shown on the screen (see Figure 30).

```
INQ TERM
SYNTAX OF SET COMMAND
Ter(S208) Tra(CEMT) Pri( 000 ) Pag Ins Ati Tti
Net(IGKS208 ) Acq

CEMT Set Terminal()
< Class() | AL1 >
< Priority() >
< PAgeable | AUTopageable >
< Inservice | Outservice >
< ATi | NOAti >
< TTI | NOTTi >
< Purge | Forceurge | Cancel >
< ACquired | COIdacq | REleased >
< CReate | NOCreate >
< REMotesystem() >
```

Figure 30. Terminal settings and allowed changes

Overwrite the settings shown, on the line beginning Ter, if you want to make changes.

## Scrolling symbol (+ sign)

A plus (+) sign on the first or last line of a display tells you that there is more data above or below your current display. Scrolling backward reveals data above, and scrolling forward reveals data below.

## Blank fields in a display

Some displays contain blank fields that allow you to specify options, such as NEWCOPY, on the CEMT SET PROGRAM command, which are not part of the status of a resource. A status, such as NOREAD, which begins NO, is also represented by a blank field. You can detect these fields by using the tab key.

## Invoking CEMT from an application program

Many of the CEMT INQUIRE and SET operations are available through the EXEC CICS INQUIRE and EXEC CICS SET commands; for programming information, see the *CICS System Programming Reference* manual. That manual also describes the programmable interface to master terminal functions that use an EXEC CICS LINK to a master terminal program. If the function you require is available via the EXEC CICS INQUIRE|SET commands, you are recommended to use them in preference to the programmed master terminal equivalent.

## Security checking

The scope of a particular INQUIRE, SET, or PERFORM command can be limited by a combination of several levels of security checking. The normal transaction-attach security is described in the *CICS Security Guide*. CEMT calls the exec interface programs to process the user's commands, in much the same way as CECI or a user's command-level program would. The resource security and the command security used by the command-level programming interface are thus applicable to the master terminal user.

For programming information about command security checking, see the *CICS System Programming Reference* manual.

## CEMT DISCARD commands

The DISCARD command allows you to remove an installed resource definition and its corresponding catalog entry from an active CICS system.

DISCARD does not affect the CICS system definition (CSD) file, and you can therefore reinstate the resource using CEDA INSTALL(*resourcename*). DISCARD commands have the same security attached to them as SET commands. You cannot discard resources that are currently in use or are CICS owned resources (beginning with "DFH" or "C").

You can discard the following resource types:

- Autinstmodel
- FEPI node
- FEPI pool
- FEPI property set
- FEPI target
- File
- Partner
- Profile
- Program
- Transaction
- Transaction class

(Programming information about FEPI commands is in the *CICS Front End Programming Interface User's Guide*.)

There are two ways to discard a resource:

1. If you know the name of the resource that you want to discard, type:

```
CEMT DISCARD resourcetype(resourcename)
```

2. If you do not know the name of the resource, type:

```
CEMT INQUIRE resourcetype
```

and a screen similar to Figure 31 appears. Use the carriage return key to move the cursor to the beginning of the line for the resource or resources you want to discard, and type "D" as shown and then press ENTER.

```

INQ PROG
STATUS: RESULTS - OVERTYPE TO MODIFY
D Prog(ABCDTASK) Len(0002936) Ass Pro Ena Pri Ced
  Res(000) Use(000000)
  Prog(DFHACP ) Len(0008232) Ass Pro Ena Pri
    Res(001) Use(000002) Any Cex Ful
  Prog(DFHAKP ) Len(0005672) Ass Pro Ena Pri
    Res(000) Use(000001) Bel Cex Ful
  Prog(DFHAMP ) Len(0108432) Ass Pro Ena Pri
    Res(000) Use(000009) Any Cex Ful
  Prog(DFHAPATT) Len(0000632) Ass Pro Ena Sha
    Res(005) Use(000018) Any Cex Ful
  Prog(DFHBRCP ) Len(0000000) Ass Pro Ena Pri
    Res(000) Use(000000) Bel Cex Ful
  Prog(DFHCCNW ) Len(0000000) Ass Pro Ena Pri
    Res(000) Use(000000) Any Cex Ful
D Prog(ERRTASK ) Len(0000448) Ass Pro Ena Pri
  Res(000) Use(000000)

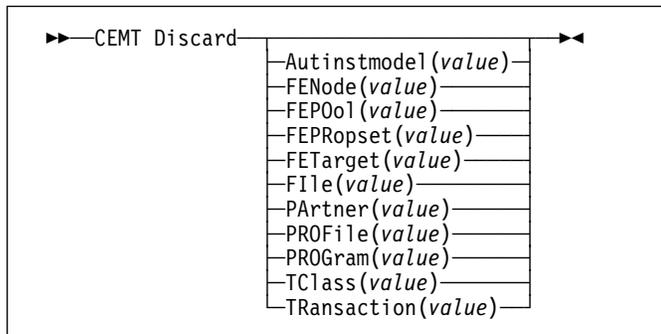
```

Figure 31. Example of screen showing the discarding of resources

## CEMT INQUIRE AND SET COMMANDS

### Notes:

1. A program cannot be discarded if a running transaction is referencing it. The transaction must be discarded first, then the program.
2. A remote file can be discarded but cannot be disabled.
3. A CEMT INQUIRE display can be used to discard more than one entry at a time but cannot be used to disable and discard at the same time.
4. When discarding a resource, the use of \* or + in the resource name is not allowed.



### Options

#### Autinstmodel(value)

specifies the name of the autoinstall model that is to be removed. The name can be up to 8 characters long. The DISCARD AUTINSTMODEL command removes the installed name of an autoinstall model from the autoinstall terminal model (AITM) table and the CICS global catalog (DFHGCD).

#### FENode|FEPOol|FEPRopset|FETarget

These are described in the *CICS Front End Programming Interface User's Guide*.

#### FIle(value)

specifies the name of the file that is to be removed. The name can be up to 7 characters long. The DISCARD FILE command removes the installed name of a file from the CICS file control table (FCT) and the CICS global catalog (DFHGCD).

#### PArtner(value)

specifies the name of the partner that is to be removed. The name can be up to 8 characters long. The DISCARD PARTNER command removes the installed name of a partner from the CICS side information table and the CICS global catalog (DFHGCD).

#### PROFile(value)

specifies the name of the profile that is to be removed. The name can be up to 8 characters long. The DISCARD PROFILE command removes the installed name of a profile from the CICS profile table (PFT) and the CICS global catalog (DFHGCD).

#### PROGram(value)

specifies the name of the program, map set, or partition set that is to be removed. The name can be up to 8 characters long. The DISCARD PROGRAM command removes the installed name of a program, map set, or partition set from the CICS processing program table (PPT) and the CICS global catalog (DFHGCD).

#### TClass(value)

specifies the name of the transaction class that is to be removed. The name can be up to 8 characters long. The DISCARD TCLASS command removes the installed name of a transaction class from the CICS program control table (PCT) and the CICS global catalog (DFHGCD).

**Note:** 'TRANCLASS' is also accepted as a synonym for TCLASS.

#### TRansaction(value)

specifies the name of the transaction that is to be removed. The name can be up to 8 characters long. The DISCARD TRANSACTION command removes the installed name of a transaction from the CICS program control table (PCT) and the CICS global catalog (DFHGCD).

---

## CEMT INQUIRE and SET commands

Most of your requests either inquire about (INQUIRE), or change (SET) the status of one or more named instances of a resource (such as a terminal), a particular subgroup of resources (such as a class of terminals), or all resources of a particular type (such as all terminals).

The INQUIRE command causes the status of the specified resources to be displayed. The SET command makes the changes that you specify, and displays the new status of the resources. No changes are made if there are syntax errors in the SET command.

If, for example, you want to inquire about a resource, enter INQUIRE (or a suitable abbreviation) on the command line. The keywords you can use with CEMT INQUIRE are described in the rest of this section.

If you want to perform those functions that are not concerned with resource status, enter PERFORM (or a suitable abbreviation) on the command line. The keywords you can use with PERFORM are described starting on page 86.

And finally, if you want to change the attributes of a resource, enter SET (or a suitable abbreviation) on the command line. The keywords you can use with SET are described starting on page 91.

If you enter INQUIRE, you get the following display:

```

INQ : ENTER ONE OF THE FOLLOWING OR HIT ENTER FOR DEFAULT
                                     ←Command Line
                                     ←Status Line
AUTInstmodel  Journalnum  Vtam
AUT0install  MODename
AUXtrace     MONitor
Connection   Netname
DEletshipped PArtners
DSAs         PROFile
DSName       PROGram
DUMpds       STATistics
Exci         SYDumPCODE
FEConnection SYStem
FENode       TAsk
FEPool       TClass
FEPopset     TQueue
FETarget     TERminal
File         TRAnSACTION
INttrace     TRDumPCODE
IRc          TSQueue

                                     ←Resources

PF 1 HELP    3 END

SYSID=CI41  APPLID=IYAHZCCV
9 MSG      ←PF keys

```

Figure 32. Sample of the screen following either the INQUIRE or the SET command

You can inquire about any of the displayed options by typing its keyword after INQUIRE on the command line. For example,

```
INQUIRE PROGRAM
```

gives you the status of all programs, and for each program gives its attributes. Full details are given in “CEMT INQUIRE PROGRAM” on page 63.

On every SET command, an argument, a generic argument, or ALL must be specified. For example:

```
SET TERMINAL(TRM1) INSERVICE
```

sets terminal TRM1 in service.

```
SET TERMINAL(TRM1 TRM2 TRM3) INSERVICE
```

or

```
SET TERMINAL(TRM1,TRM2,TRM3) INSERVICE
```

sets terminals TRM1, TRM2, and TRM3 in service.

```
SET TERMINAL(TRM*) INSERVICE
```

sets all terminals with identifiers starting with TRM in service.

```
SET TERMINAL ALL INSERVICE
```

sets all terminals in service.

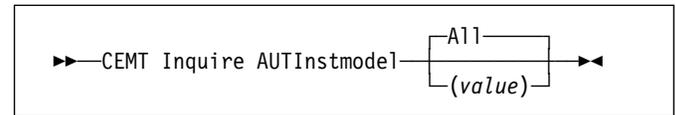
However,

```
SET TERMINAL INSERVICE
```

produces an error.

## CEMT INQUIRE AUTINSTMODEL

Find out whether a named autoinstall model is present.



### Context

The INQUIRE AUTINSTMODEL command returns the names of all the autoinstall models installed in your system. There is no CEMT SET AUTINSTMODEL function, but the INQUIRE AUTINSTMODEL screens allow you to use the DISCARD function.

For information about autoinstall models, see the *CICS Resource Definition Guide*.

### Description

Press the Clear key and type CEMT INQUIRE AUTINSTMODEL (the minimum abbreviation is CEMT I AUTI).

You get a display screen, a sample of which is shown below.

If you do not type the name of a specific autoinstall model (the name can be up to 8 characters long—for example, cemt i auti(dfh1u0e2)), the names of all the autoinstall models will be displayed.

### Examples

```

CEMT IN AUTIN
STATUS: RESULTS
Aut i (DFHLU0E2)
Aut i (DFHLU0M2)
Aut i (DFHLU0M3)
Aut i (DFHLU0M4)
Aut i (DFHLU0M5)
Aut i (DFHLU2 )
Aut i (DFHLU2E2)
Aut i (DFHLU2E3)
Aut i (DFHLU2E4)
Aut i (DFHLU2M2)
Aut i (DFHLU2M3)
Aut i (DFHLU2M4)
Aut i (DFHLU2M5)
Aut i (DFHLU3 )
Aut i (DFHLU62T)
Aut i (DFHSCSP )
Aut i (DFH3270 )
+ Aut i (DFH3270P)

```

Figure 33. CEMT INQUIRE AUTINSTMODEL screen

**Note:** The ‘+’ symbol in the left margin by the last item on the screen indicates that further model names are displayed when the PF8 key is pressed.

### Options

All is the default.

## CEMT INQUIRE AUTOINSTALL

### AUTOinstallmodel

identifies this panel as relating to autoinstall models.

### (value)

displays the name of an autoinstall model in your CICS system.

To discard an autoinstall model, type a “D” in the left-hand margin by the model name on the display panel and press ENTER.

---

## CEMT INQUIRE AUTOINSTALL

Retrieve information about autoinstall values.



### Context

The INQUIRE AUTOINSTALL command lets you look at some of the values that control the automatic installation of terminals (autoinstall).

For background information about autoinstall, see the *CICS Resource Definition Guide*.

### Description

Press the Clear key and type CEMT INQUIRE AUTOINSTALL (the minimum abbreviation is CEMT I AUTO).

You get a display screen, a sample of which is shown below. If you want to change any of the values shown, you can then tab to the highlighted fields and overwrite them as required. Alternatively, you can use the CEMT SET AUTOINSTALL command. See page 91 for further details.

### Examples

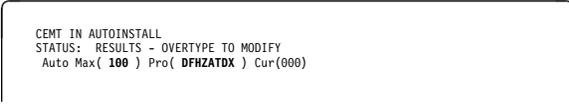


Figure 34. CEMT INQUIRE AUTOINSTALL screen

### Options

#### AUTOinstall

identifies this panel as relating to autoinstall.

#### Current(value)

displays the number of autoinstall requests that are currently being processed. (This is not the number of terminals currently installed using autoinstall.)

#### Maximum(value)

displays the largest number of autoinstall requests that are allowed to queue at any one time. (This is not the largest number of terminals that can be installed using autoinstall.)

**Note:** You can reset this value by overtyping it with a different value.

**Program(*value*)**

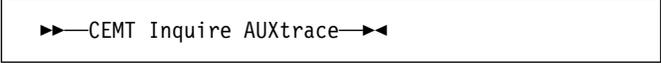
displays the name of the program that controls the autoinstall process. This is either one of the CICS-supplied default autoinstall programs (DFHZATDX or DFHZATDY) or the VSE/ESA™ supplied program, IESZATDX, or a user-written program.

**Note:** You can reset this value by overtyping it with a different value.

---

## CEMT INQUIRE AUXTRACE

Retrieve information about the status of auxiliary trace.



▶—CEMT Inquire AUXtrace—◀

### Context

Auxiliary trace entries are made to a pair of CICS-controlled SAM data sets, 'A' and 'B'.

INQUIRE AUXTRACE tells you:

- Which of the auxiliary trace data sets is active, Cur(A) or Cur(B)
- Whether an auxiliary trace is in progress (started) or not (stopped), or whether it has been suspended (paused)
- Whether automatic switching is to occur when the current trace data set becomes full.

You can start, stop, or pause tracing, and specify that automatic switching of the auxiliary data set is to occur when needed. You can use the SWITCH option to change the data set.

Instead of using the SET command, you can overtype your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).

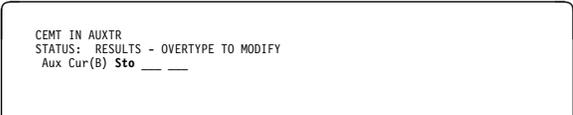
For information on using auxiliary tracing, see the *CICS Problem Determination Guide*. See also the description of the CETR transaction on page 143.

### Description

Press the Clear key and type CEMT INQUIRE AUXTRACE (the minimum abbreviation is CEMT I AUX).

You get a display screen, a sample of which is shown below. If you want to change any of the values shown, you can then tab to the highlighted or blank fields and overtype them as required.

### Examples



```
CEMT IN AUXTR
STATUS: RESULTS - OVERTYPE TO MODIFY
Aux Cur(B) Sto _ _
```

Figure 35. CEMT INQUIRE AUXTRACE screen

**Note:** The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

## CEMT INQUIRE CONNECTION

### Options

#### All

Automatic switching occurs as necessary until the end of this CICS session without the need for operator intervention.

**Note:** You can reset this value by overtyping it with a different value.

#### Auxiliary

identifies this panel as relating to auxiliary trace.

#### Current(A|B)

displays a 1-character identifier of the current auxiliary data set, which can be 'A' or 'B'. This value is blank if there is no auxiliary trace data set.

#### Next

Automatic switching occurs when the current trace data set is full, but not subsequently.

**Note:** You can reset this value by overtyping it with a different value.

#### Noswitch

Switching does not occur without operator intervention.

**Note:** Because this is a "negative" attribute, the field appears blank. However, you can tab to this field and overtype it with a different value.

#### Pause

Auxiliary tracing has stopped, but the trace data set has been left open. A subsequent START request causes trace entries to be written immediately following those that were written before the PAUSE request.

#### Start

Auxiliary tracing is in progress (the auxiliary trace data set is open).

**Note:** You can reset this value by overtyping it with a different value.

#### Stop

Auxiliary tracing has stopped, and the trace data set is closed.

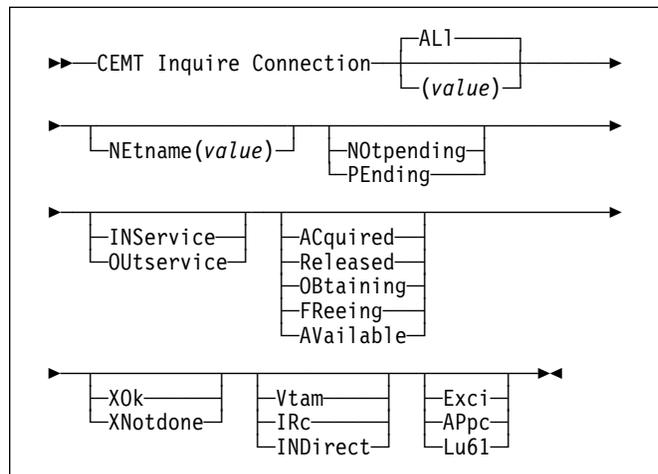
**Note:** You can reset this value by overtyping it with a different value.

#### Switch

makes an immediate switch from the current auxiliary trace data set to the alternate trace data set.

## CEMT INQUIRE CONNECTION

Retrieve information about system connections.



### Context

CEMT INQUIRE CONNECTION returns information about the status of connections to a remote system or to another CICS region.

When a connection has been defined as INDIRECT, no information is given unless the direct connection to which it refers is installed.

You can reset the options either by typing the SET command or by overtyping at the appropriate place on the INQUIRE screen. If you want to install a new connection definition when one is already installed, you must set the connection OUTSERVICE and, if it is VTAM-connected, release it before using the CEDA INSTALL commands for your new definition.

See the *CICS Resource Definition Guide* for further information about connections.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE CONNECTION (the minimum abbreviation is CEMT I C). You get a display that lists the current status.
- Type CEMT INQUIRE CONNECTION (CEMT I C) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cent i c ins acq`, the resulting display will show you the details of only those connections that are in service and acquired.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use a CEMT SET CONNECTION command (see page 93).

**ALI**

is the default.

**(value)**

specifies one or more names (1–4 characters) defined for an interregion communication (IRC) or an intersystem communication (ISC) connection.

**Examples**

```

I CONN
STATUS: RESULTS - OVERTYPE TO MODIFY
Con(G1GA)          Ins
Con(ISC1) Net(AUHZCIC1)  Ins Acq  Xok Vta Appc
Con(MR02) Net(CICSHAA1)  Ins Acq
Con(MR04) Net(CICSHAA2)  Ins Acq  Irc
Con(MR05) Net(CICSHAA3)  Ins Acq  Irc
Con(MR06) Net(CICSHAB1)  Ins Acq  Irc
  
```

Figure 36. CEMT INQUIRE CONNECTION screen

**Note:** The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

**Options****ACquired (APPC and MRO)**

The CONNECTION is acquired. The criteria for ACQUIRED for VTAM links are:

- The partner LU has been contacted.
- Initial CNOS exchange has been done.

The criteria for ACQUIRED for MRO links are:

- Both sides of the link are in service.
- Both sides of the link are successfully logged on to the CICS interregion communication program (DFHIRP).
- A connection request by each side has been successful for at least one session, and therefore each side can send and receive data.

**APpc**

The connection uses the VTAM LUTYPE6.2 protocol for intersystem communication.

**AVailable (APPC only)**

The connection is acquired but there are currently no bound sessions because they were unbound for limited resource reasons.

**Connection(value)**

identifies this panel as relating to system connections, and displays the 4-character name by which the connection is known.

**Exci**

The connection uses the external CICS interface for communication between CICS and a non-CICS client program.

**FReeing (APPC only)**

The connection is being released.

**INDirect**

Communication between the local CICS system and the system defined by this connection is through the system named in the INDSYS operand of the connection definition.

**INService**

The system is in service; that is, it is available for use.

**IRc**

The connection is used for multiregion operation (MRO), and has been defined to use the interregion communication (IRC) program for communication. The IRC access method is used only if the other CICS region is on the same VSE image.

**Lu61**

The connection uses the VTAM LUTYPE6.1 protocol for CICS-to-CICS intersystem communication.

**NEtname(value)**

displays the 8-character name by which the remote system is known to the network.

For an ISC connection, the NETNAME corresponds to the VTAM applid of the remote system.

For a CICS-to-CICS MRO connection, the NETNAME is the name the remote system uses to log on to DFHIRP (from the APPLID system initialization parameter).

For an indirect connection, NETNAME corresponds to the applid (as specified by the APPLID system initialization parameter) of the terminal-owing region (TOR).

**NOtpending (APPC only)**

Units of work are currently being synchronized.

**OBtaining (APPC only)**

The connection is being acquired. The connection remains in the OBTAINING state until all the criteria for ACQUIRED have been met.

**OUtservice**

The system is out of service; that is, it is not available for use.

**PEnding (APPC only)**

The local system has units of work that require resynchronization with the remote system. The resynchronization process results in CLS2 transactions being initiated when a new session is bound between the systems.

## CEMT INQUIRE DATASET

### Released (APPC and MRO)

The connection is released. Although the connection might be in service, it is not usable.

In the case of an MRO link, the released status can be caused by any one of a number of conditions. For example, it could be because the CICS region on the other side has not yet initialized, or not yet signed on to the CICS interregion communication program (DFHIRP); or it could be because CICS interregion communication may have been closed on the other side, or the connection on the other side may have been set out of service.

### Vtam

The connection is used for intersystem communication (ISC).

### XNotdone (APPC only)

The exchange log names (XLN) flow for the APPC connection has not completed successfully. The CSMT log can contain information relating to this state. Synchronization level 2 conversations are not allowed on the connection, but synchronization levels 0 and 1 are still allowed.

No status is displayed if exchange log names is not applicable. This can be because the link:

- Is released
- Is MRO, LU6.1, or single-session APPC
- Does not support synchronization level 2 conversations

For information about the APPC exchange log names process, see the *CICS Intercommunication Guide*.

### XOk (APPC only)

The exchange log names (XLN) process for the APPC connection has completed successfully.

---

## CEMT INQUIRE DATASET

Replaced by CEMT INQUIRE FILE (see page 51). DATASET is still accepted, except for EXEC CICS SET commands.

## CEMT INQUIRE DELETSHIPED

Display system settings that control the CICS timeout delete mechanism.

```
▶▶—CEMT Inquire DEletshipped—▶▶
```

### Context

The CICS timeout delete mechanism is invoked at user-specified intervals to remove any shipped terminal definitions that have not been used for longer than a user-specified time.

INQUIRE DELETSHIPED displays the current settings of the parameters that control the mechanism.

### Description

Press the Clear key and type CEMT INQUIRE DELETSHIPED (the minimum abbreviation is CEMT I DE). You get a display screen.

To change attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET DELETSHIPED command (see page 95).

### Examples

```
I DELETSHIP
STATUS: RESULTS - OVERTYPE TO MODIFY
DeI Int( 120000 ) IdI( 020000 )
```

Figure 37. CEMT INQUIRE DELETSHIPED screen

### Options

#### DEI

identifies this panel as relating to CICS timeout delete information.

#### IDle(*value*)

displays, in the form “0hhmmss+”, the minimum time that an *inactive* shipped terminal definition must remain installed in this region. When the CICS timeout delete mechanism is invoked, only those shipped definitions

that have been inactive for longer than this time are deleted.

The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds.

**Note:** You can reset this value by overtyping it with a different value.

#### INterval(*value*)

displays, in the form “0hhmmss+”, the interval between invocations of the CICS timeout delete mechanism. The timeout delete mechanism removes any shipped terminal definitions that have not been used for longer than the time displayed by the IDLE option.

The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds.

**Note:** You can reset this value by overtyping it with a different value.

## CEMT INQUIRE DSAS

Retrieve information about the local CICS dynamic storage areas (DSAs).

▶—CEMT Inquire DSAs—▶

Press the Clear key to clear the screen, and type CEMT INQUIRE DSAS (the minimum abbreviation is CEMT I DSA). You get a display that lists the current DSA status. You can then tab to the highlighted fields and overtype them with the required values.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET DSAS command (see page 96).

## Examples

```
INQ DSAS
STATUS: RESULTS - OVERTYPE TO MODIFY
SOSstatus( NOTSOS )

Dsalimit( 04194304 )
Cdsasize( 00524288 )
Rdsasize( 00262144 )
SDsasize( 00262144 )
Udsasize( 00000000 )

EDsalimit( 0020971520 )
ECdsasize( 0002097152 )
ERdsasize( 0003145728 )
ESdsasize( 0000000000 )
EUdsasize( 0001048576 )
```

Figure 38. CEMT INQUIRE DSAS screen

## Options

### Cdsasize(*value*)

displays the size, in bytes, of the CICS dynamic storage area (CDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

### Dsalimit(*value*)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS System Definition Guide* for a description of the DSALIM system initialization parameter.)

**Note:** You can reset this value by overtyping it with a different value.

If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit

immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

### ECdsasize(*value*)

displays the size, in bytes, of the extended CICS dynamic storage area (ECDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

### EDsalimit(*value*)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside above the 16MB boundary. (See the *CICS System Definition Guide* for a description of the EDSALIM system initialization parameter.)

**Note:** You can reset this value by overtyping it with a different value.

If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

### ERdsasize(*value*)

displays the size, in bytes, of the extended read-only dynamic storage area (ERDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

### ESdsasize(*value*)

displays the current size of the extended shared dynamic storage area (ESDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

### EUdsasize(*value*)

displays the size, in bytes, of the extended user dynamic storage area (EUDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

### Rdsasize(*value*)

displays the current size of the read-only dynamic storage area (RDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

### SDsasize(*value*)

displays the current size of the shared dynamic storage area (SDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

**SOS**status

displays whether CICS is short on storage in any of the dynamic storage areas. The values are:

**Notsos**

CICS is not short on storage in any of the dynamic storage areas.

**SOS** CICS is short on storage in dynamic storage areas above and below 16MB.

**SOSA**above

CICS is short on storage in at least one of the dynamic storage areas above 16MB, but none below.

**SOSB**below

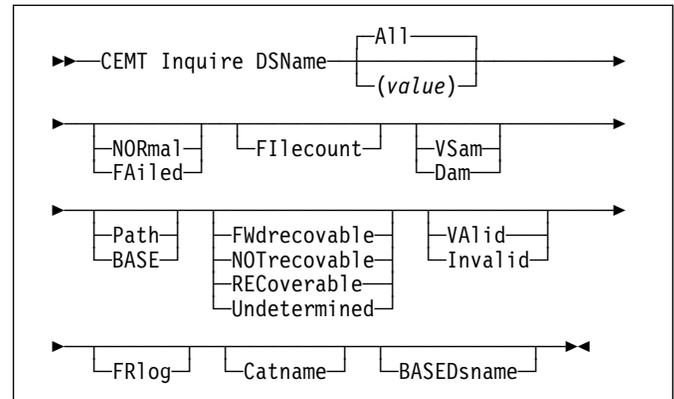
CICS is short on storage in at least one of the dynamic storage areas below 16MB, but none above.

**Udsasize**(value)

displays the size, in bytes, of the user dynamic storage area (UDSA) below the 16MB boundary.

**CEMT INQUIRE DSNAME**

Retrieve information about an external data set.

**Context**

INQUIRE DSNAME returns information about the status of a data set managed by CICS file control. The data set name is either the name specified on the file-id parameter of the data set's DLBL statement, or the DSNAME parameter of the data set's file resource definition. Its main purpose is to allow you to monitor failing VSAM data sets. Many of the attributes cannot be determined until a file that references the data set has been opened. If this has not happened, blank values are returned for most attributes.

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE DSNAME (the minimum abbreviation is CEMT I DSN). You get a display that lists the current status.
- Type CEMT INQUIRE DSNAME (CEMT I DSN) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i dsn nor vs fw`, the resulting display will show you the details of only those external data sets for which all backouts have been successful (normal), are VSAM data sets, and are forward-recoverable.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).
- Use the CEMT SET DSNAME command (see page 97).

## CEMT INQUIRE DSNAME

### Options

All is the default.

(value)

specifies one or more names (1–44 characters) of an external data set.

### Examples

```
CEMT IN DSNA
STATUS: RESULTS - OVERTYPE TO MODIFY
Dsn(CICS410.DFHCSO ) Nor
```

Figure 39. CEMT INQUIRE DSNAME screen

If the request is made from the VSE console, then the full range of keywords associated with this command is always displayed. For other terminals, because of the large number of keywords supported, only one line of information for each result is displayed. The full set of keywords usually needs 3 lines on a screen and is displayed only if you specifically select it by typing a ? in front of the chosen result. You get a display of all the keyword information and also the syntax of the CEMT SET DSNAME command. Only one ? is honored for each ENTER input.

```
IN DSNA
SYNTAX OF SET COMMAND
Dsn(CICS410.DFHCSO ) Nor
  Fil(0001) Vsa Bas Und Val
  Bas(CICS410.DFHCSO )
CEMT Set DSname()
< All >
< NORmal | FAiled >
< REMove >
```

Figure 40. CEMT INQUIRE DSNAME—extended screen

### Options

#### BASE

The named data set is a base data set, as opposed to a path data set.

#### BASEDsnname(value) (VSAM only)

When PATH is displayed as well, this is the name of the base data set with which this path is associated.

When BASE is displayed as well, this is the same as the name shown in the Dsn(value) field.

#### Catname (VSAM only)

The name of the data set's associated VSAM catalog.

#### Dam

Direct access method (DAM) data set.

#### DSName(value)

identifies this panel as relating to an external data set inquiry, and displays the 44-character name of the external data set.

#### Failed

An attempt to back out has failed. Batch backout or forward recovery needs to be carried out, and CICS must be told when this has been completed successfully. Use the CEMT SET DSNAME NORMAL command to do this.

**Note:** You can reset this value by overtyping it with a different value.

#### Filecount(value)

displays information on how many different files are currently associated with this data set. You can associate a file with a data set by a job control DLBL statement, or dynamically by a DSNAME parameter on the RDO FILE resource definition. If a file has been associated by a job control DLBL statement, the file name cannot be changed by a CEDA command or by a CEMT or EXEC CICS SET FILE DSNAME command.

FILECOUNT does not show how many files are **open** against the data set; it only shows how many files are **associated** with the data set. If a file is associated with a data set and is then closed and associated with a different data set, the FILECOUNT of the first data set decreases by 1, and the FILECOUNT of the second data set increases by 1.

#### FRlog(value)

displays the number of the journal used to log the updates if this is a FWDRECOVERABLE data set.

#### FWdrecoverable

All updates to the data set are logged for both backout and forward recovery.

#### Invalid

The data-set name has not been validated against the VSAM catalog by opening a file against that data set.

#### NORmal

All backouts have been successful, or backout has not been necessary. Data sets that are currently in the process of failing backout are also displayed as NORMAL.

**Note:** You can reset this value by overtyping it with a different value.

#### NOTrecoverable

Updates to the data set are not logged.

This response may also be returned as the result of use of the XFCNREC global user exit. A program enabled at XFCNREC may indicate that file opens should proceed even if there is a mismatch in the backout recovery requirements for different files associated with same data set. In these circumstances, the data set is marked as NOTRECOVERABLE to indicate that its data integrity

can no longer be guaranteed. For detailed information about XFCNREC, see the *CICS Customization Guide*.

The condition remains until cleared by a CEMT SET DSNAME REMOVE, EXEC CICS SET DSNAME REMOVE, or a cold start (if the associated data set is not in backout-failed state). While the data set is in this state, backout logging is performed for a particular request based on the specification in the file definition. Therefore backout logging may occur for requests via one file and not via another.

#### Path (VSAM only)

This data set is a path leading to another data set.

#### RECoverable

All updates to the data set are logged for backout.

#### Undetermined

The recovery status of the data set is not known because files accessing the data set have not been opened for output.

#### VAId

The data-set name has been validated against the VSAM catalog by opening a file against that data set.

#### VSam

Virtual storage access method (VSAM) data set.

## CEMT INQUIRE DUMPDS

Retrieve information about the CICS dump data sets.

▶—CEMT Inquire Dumpds—▶

### Context

INQUIRE DUMPDS tells you which dump data set (A or B) is currently open.

Instead of using the SET command, you can overwrite your changes on the INQUIRE screen after tabbing to the appropriate field. See "Overtyping a display" on page 35.

For information on using dumps, see the *CICS Problem Determination Guide*.

### Description

Press the Clear key and type CEMT INQUIRE DUMPDS (the minimum abbreviation is CEMT I DU).

You get a display screen, a sample of which is shown below. If you want to change any of the values shown, you can then tab to the highlighted or blank fields and overwrite them as required. Alternatively, you can use the CEMT SET DUMPDS command (see page 98).

### Examples

```
CEMT IN DUMPDS
STATUS: RESULTS - OVERTYPE TO MODIFY
Dum Cur(A) Ope   
```

Figure 41. CEMT INQUIRE DUMPDS screen

**Note:** The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

### Options

#### Autoswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

**Note:** You can reset this value by overtyping it with a different value.

#### Closed

The active CICS dump data set is closed.

**Note:** You can reset this value by overtyping it with a different value.

## CEMT INQUIRE EXCI

### Currentdds(*value*)

displays a 1-character indicator as to which of the two dump data sets is active. This can be A or B.

### Dum

indicates that this panel relates to a dump data set inquiry.

### Noautoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

### Open

The active CICS dump data set is open.

**Note:** You can reset this value by overtyping it with a different value.

### Switch

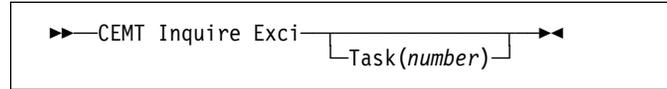
The currently active dump data set is to become inactive, and the currently inactive data set is to become active.

**Note:** You can reset this value by overtyping it with a different value.

---

## CEMT INQUIRE EXCI

Retrieve information about each batch region connected to CICS.



### Context

INQUIRE EXCI identifies the names of batch jobs currently connected to CICS through the interregion communication (IRC) facility. These are jobs using the external CICS interface (EXCI) to link to a server program running in CICS.

### Description

Press the Clear key to clear the screen, and type CEMT INQUIRE EXCI (the minimum abbreviation is CEMT I E). You get a display that lists the current status.

### Options

#### Exci

indicates that this panel relates to an EXCI inquiry.

#### Task(*number*)

displays the task number of the mirror transaction running on behalf of a specific batch job.

For jobs using the external CICS interface, the identification consists of:

jobname.execname.syslogid

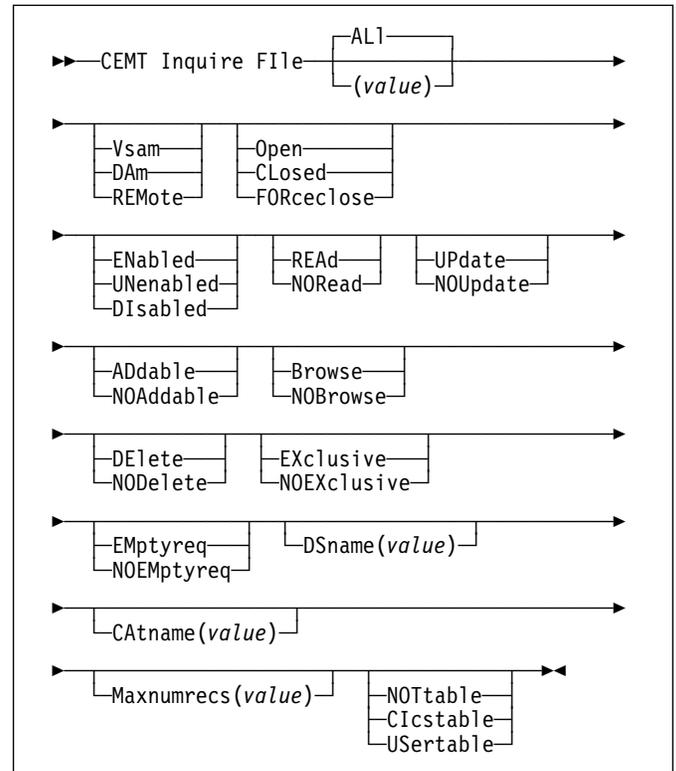
Information about jobs using the external CICS interface is available only after that job has issued at least one DPL request. A nonzero task number indicates that a DPL request is currently active. A zero task number indicates that an external CICS interface session is still open (connected) for that job, although no DPL request is currently active.

## CEMT INQUIRE FEPI

For information on CEMT INQUIRE FECONNECTION, CEMT INQUIRE FEPOOL, CEMT INQUIRE FEPROPSET, and CEMT INQUIRE FETARGET, see the *CICS Front End Programming Interface User's Guide*.

## CEMT INQUIRE FILE

Retrieve information about VSAM, DAM, and remote files.



### Context

The values that are returned to you can vary according to when the command is issued. For example, if the file is closed when you issue the command, much of the information you receive tells you the state of the file when it is next opened. If the file has never been opened, you receive default or null values for some of the options, which could change when the file is opened.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE FILE (the minimum abbreviation is CEMT I FI). You get a display that lists the current status.
- Type CEMT INQUIRE FILE (CEMT I FI) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i fi v op en up`, the resulting display will show you the details of only those files that are VSAM, open, enabled, and updatable.

To change various attributes, you can:

## CEMT INQUIRE FILE

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET FILE command (see page 99).

### ALI

is the default. Information about all files is given, unless you specify a selection of files to be queried.

**Note:** This does not retrieve information for files defined with ACCMETH=DLI in DFHFCT.

### (value)

specifies one or more names (1–7 characters) defined in the file control table (FCT).

## Examples

```
CEMT IN FILE
STATUS: RESULTS - OVERTYPE TO MODIFY
File(DFHCS D ) Vsa C1o Une Rea Upd Add Bro De1  ) Max( 00000000 )
Dsn( CICS410.DFHCS D
```

Figure 42. CEMT INQUIRE FILE screen

### Notes:

1. The highlighted sections can be changed by overtyping them.
2. The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

## Options

### ADdable

New records can be added to the file.

**Note:** You can reset this value by overtyping it with a different value.

### Browse

You can browse records in the file.

**Note:** You can reset this value by overtyping it with a different value.

### CAtname(value) (VSAM only)

displays the name (1-7 characters) of the data set's associated VSAM catalog.

### CIcstable

The file name represents a CICS-maintained data table.

**Note:** You can reset this value by overtyping it with a different value.

### CLosed

The file is closed; the access method does not allow accesses to the data until the file is opened. The file can be opened either explicitly by the user or, if the file

has the ENABLED attribute, implicitly by CICS on the next reference to the file.

A file with the DISABLED attribute can be enabled only by a SET FILE ENABLED command. A file with the UNENABLED attribute can be enabled by a SET FILE ENABLED command or SET FILE OPEN command.

### Notes:

1. The CLOSED status may be a temporary status for a file that has just come out of LOADMODE status.
2. You can reset this value by overtyping it with a different value.

### DAm

Direct access method (DAM).

### DElete

You can delete records from the file.

**Note:** You can reset this value by overtyping it with a different value.

### Disabled

The file is not available for use by transactions except for those that are currently using it. If there are any such users, ‘BEING DISABLED’ is also displayed.

The file can be reenabled by a SET FILE ENABLED command. (See also UNENABLED.)

It is not possible to disable a remote file.

**Note:** You can reset this value by overtyping it with a different value.

### DSname(value)

displays the name (1–44 characters) of the VSAM or DAM data set with which this file is associated. For VSAM files, you can reset this value by overtyping it with a different value.

### EMptyreq (VSAM only)

Applies only to a VSAM file that has been defined to VSAM as a cluster with the REUSE parameter. It indicates that when a file is next opened, its data is erased.

**Note:** You can reset this value by overtyping it with a different value.

### ENabled

The file is available for use by transactions and, if closed, it is opened on the first request.

**Note:** You can reset this value by overtyping it with a different value.

### EXclusive (DAM only)

Records on the file are protected from simultaneous update.

**Note:** You can reset this value by overtyping it with a different value.

**File**(*value*)

indicates that this panel relates to a file inquiry, and displays a 7-character filename.

**FO**rce close

The file is closed, and the tasks of any existing users are abended.

**Note:** You can reset this value by overtyping it with a different value.

**Maxnumrecs**(*value*)

displays the maximum number of records that the data table for this file can hold. The value can be in the range 16 through 16777215 (16 to 16MB-1). INQUIRE returns a zero value if no value has been set for the file.

**Note:** You can reset this value by overtyping it with a different value.

**NO**Addable

New records cannot be added to the file.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**NO**Browse

You cannot browse records in the file.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**NO**Delete

You cannot delete records from the file.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**NO**EMptyreq (**VSAM only**)

It indicates that when a file is next opened, its data is not erased.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**NO**EXclusive (**DAM only**)

Records on the file are not protected from simultaneous update.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**NO**Read

You cannot read records in the file.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**NO**Ttable

The file name does not represent a data table.

**Note:** Because this is a 'negative' attribute, the field

appears blank. You can, however, tab to this field and overtype it with a different value.

**NO**Update

You cannot update records in the file.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**O**pen

The file is open. If the file is OPEN ENABLED, it is available for data accesses by CICS transactions. If it is OPEN DISABLED, it must first be enabled before it is available.

**Note:** You can reset this value by overtyping it with a different value.

**RE**Ad

You can read records in the file.

**Note:** You can reset this value by overtyping it with a different value.

**RE**Mote

The file is defined as remote.

**UN**enabled

The file is not available for use by transactions except for those that are currently using it. If there are any such users, 'BEING CLOSED' is also displayed.

This status is the same as DISABLED except that it occurs implicitly when a SET FILE CLOSE is requested. The file is enabled implicitly by a SET FILE OPEN command.

**Note:** You can reset this value by overtyping it with a different value.

**U**Pdate

You can update records in the file.

**Note:** You can reset this value by overtyping it with a different value.

**U**Sertable

The file name represents a user-maintained data table.

**Note:** You can reset this value by overtyping it with a different value.

**V**sam

Virtual storage access method (VSAM).

### VSAM restrictions

CEMT uses a collating sequence when opening and closing more than one file as a generic OPEN/CLOSE might do. Be aware when opening alternate index/BASE files together, or other files that share clusters or components, that certain VSAM restrictions apply to the shared use of the cluster or component. These restrictions depend on the settings of the RDO FILE DSNSHARING and ADD, DELETE and UPDATE options (DSNSHR and SERVREQ options on the DFHFCT TYPE=FILE macro), and also the SHAREOPTIONS setting in the VSAM definition of the data set. A violation of these results in an open error.

## CEMT INQUIRE INTRFACE

Show the status of CICS internal tracing.

```
▶▶—CEMT Inquire INttrace—◀◀
```

### Context

INQUIRE INTRFACE tells you whether CICS internal tracing is in progress.

This command is intended for use at terminals that do not support the full-screen tracing transaction CETR.

### Description

Press the Clear key and type CEMT INQUIRE INTRFACE (the minimum abbreviation is CEMT I IN).

You get a display screen, a sample of which is shown below. If you want to change the displayed value, you can then tab to the highlighted field and overwrite it as required.

### Examples

```
CEMT IN INTRFA
STATUS: RESULTS - OVERTYPE TO MODIFY
Int Sta
```

Figure 43. CEMT INQUIRE INTRFACE screen

### Options

#### INttrace

indicates that this panel relates to an INTRFACE inquiry.

#### Start

CICS internal tracing is in progress.

**Note:** You can reset this value by overtyping it with a different value.

#### Stopped

CICS internal tracing is not in progress.

**Note:** You can reset this value by overtyping it with a different value.

## CEMT INQUIRE IRC

Show the IRC status.



```
▶▶—CEMT Inquire IRc—◀◀
```

### Context

INQUIRE IRC tells you whether the interregion communication (IRC) facility is open or closed. SET IRC can be used to open or close the IRC, or the displayed value can be overtyped in the CEMT INQUIRE IRC panel.

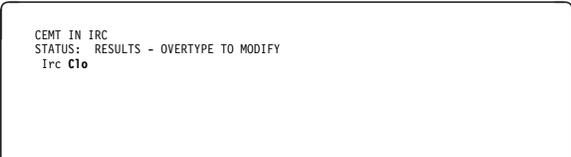
### Description

Press the Clear key and type CEMT INQUIRE IRC (the minimum abbreviation is CEMT I IR).

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET IRC command (see page 102).

### Examples



```
CEMT IN IRC
STATUS: RESULTS - OVERTYPE TO MODIFY
Irc Cl
```

Figure 44. CEMT INQUIRE IRC screen

### Options

#### Closed

Interregion communication for this CICS system is terminated after tasks using the session have terminated normally.

#### Immclose

All tasks using IRC sessions are to be abended when they next try to use the session. Interregion communication is terminated when all tasks that were using IRC have been abended or have terminated normally.

#### IRc

indicates that this panel relates to an IRC inquiry.

#### Open

Interregion communication for this CICS system is initialized. This allows connections to be established

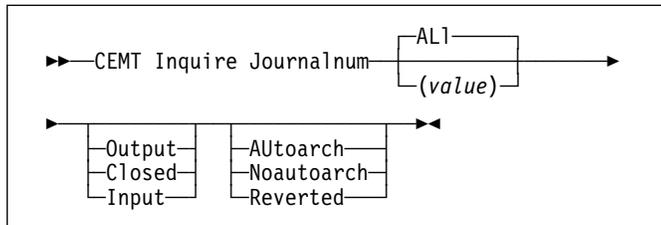
between this system and other systems. You can control the availability of individual connections with the INSERVICE or OUTSERVICE settings on the connection names, using CEMT INQUIRE CONNECTION or CEMT SET CONNECTION.

The DFHIR3780 message is issued to the console log if the region made an unsuccessful attempt to start IRC.

**Note:** You can reset these values by overtyping them with a different value.

## CEMT INQUIRE JOURNALNUM

Retrieve information about the system log and user journals.



### Context

INQUIRE JOURNALNUM returns information about the attributes of the system log and of user journals that are defined in the journal control table (JCT).

For a disk journal defined with two data sets, for example, INQUIRE JOURNALNUM gives the status of the A and B journal data sets.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE JOURNALNUM (the minimum abbreviation is CEMT I J). You get a display that lists the current status.
- Type CEMT INQUIRE JOURNALNUM (CEMT I J) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cent i j o au`, the resulting display will show you the details of only those journals that are opened for output and are subject to automatic archiving.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).
- Use the CEMT SET JOURNALNUM command (see page 103).

#### ALI

is the default.

#### (value)

specifies the journal number in the range 1-99. '1' is the system log.

### Examples

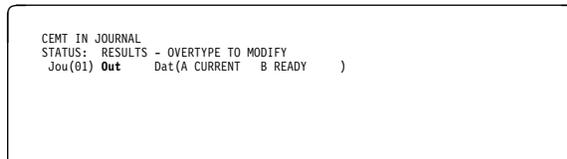


Figure 45. CEMT INQUIRE JOURNALNUM screen

### Options

#### AUTOARCH (disk journals only)

The journal is to be archived automatically.

#### Closed

The journal is closed.

**Note:** You can reset this value by overtyping it with a different value.

#### Dat(value) (disk journals only)

displays the status of the 'A' data set and the 'B' data set.

The value are:

#### CURRENT

The disk data set is currently active.

#### READY

The disk data set is ready to be written to if a switch occurs.

#### NOTREADY

The data set is waiting to be archived.

#### Input

The journal is open for input and can be read by any task authorized to do so.

**Note:** You can reset this value by overtyping it with a different value.

#### Journalnum

indicates that this panel relates to a JOURNALNUM inquiry.

#### Noautoarch (disk journals only)

The journal is not to be archived automatically.

#### Output

The journal is opened for output and can be written to by any task authorized to do so.

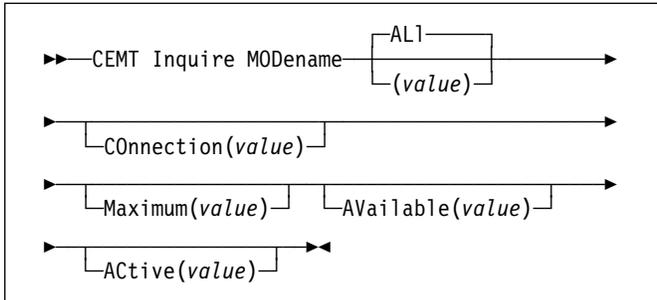
**Note:** You can reset this value by overtyping it with a different value.

#### Reverted (disk journals only)

Automatic archiving has been in effect, but an error has caused a reversion to operator archiving for this journal. Pause messages are issued when archiving is necessary.

## CEMT INQUIRE MODENAME

Retrieve information about connection sessions.



### Context

INQUIRE MODENAME returns information about the named group of sessions that has been defined for a connection to a remote system or to another CICS region.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE MODENAME (the minimum abbreviation is CEMT I MOD). You get a display that lists the current status.
- Type CEMT INQUIRE MODENAME (CEMT I MOD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i mod acq`, the resulting display will show you the details of all modenames that are acquired.

Mode names need not be unique. You cannot specify a list of names, but you can use the symbols \* and + to specify a family of mode names.

A mode name consisting of eight blanks is valid. To specify this name, enclose the string of blanks within single quotation marks:

```
MODENAME('  ')
```

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET MODENAME command (see page 104).

### ALI

is the default.

### (value)

specifies one or more names (1–8 characters) of a group of sessions.

### Options

#### ACtive(value)

displays the number of sessions within the group (or “modename”) that are currently in use (“bound”).

#### AVailable(value)

displays the currently negotiated number of sessions within the group that can be allocated for use at one time. During a CICS run, you can change this value to any number between 0 and the maximum.

#### COnection(value)

displays the 4-character identifier of the remote system with which this group of IRC or ISC sessions is connected.

#### Maximum(value)

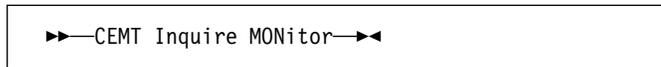
displays the maximum number of sessions that are supported at one time within this group of sessions, in the range 0–999.

#### MODename(value)

indicates that this panel relates to a modename inquiry, and displays an 8-character name of a group of sessions.

## CEMT INQUIRE MONITOR

Retrieve information about the status of CICS monitoring.



### Context

INQUIRE MONITOR tells you whether monitoring is switched on or off, which classes of monitoring data are to be collected, and the current settings of the monitoring options.

### Description

Press the Clear key to clear the screen. To start this transaction:

Type CEMT INQUIRE MONITOR (the minimum abbreviation is CEMT I MON). The resulting display shows you the details of all monitoring data classes being collected and the current settings of the monitoring options. You can then tab to the highlighted or blank fields and overwrite them with the required values.

### Examples

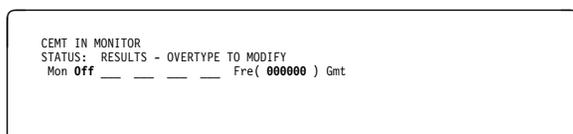


Figure 46. CEMT INQUIRE MONITOR screen

**Note:** The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

### Options

#### Converse

Separate performance class records are produced for each pair of terminal control I/O requests (Converse or Send/Receive pair).

**Note:** You can reset this value by overtyping it with a different value.

#### Except

Exception-class monitoring data is being collected.

**Note:** You can reset this value by overtyping it with a different value.

#### FREquency(*value*)

displays the interval for which monitoring automatically produces a transaction performance class record for any long-running transaction that has been in the system for

a greater time than the interval. FREQUENCY values can be either 000000 (meaning that FREQUENCY monitoring is inactive), or in the range 001500–240000.

**Note:** You can reset this value by overtyping it with a different value.

#### Gmt

The time stamp fields in the performance class data are Greenwich mean time (GMT) to an application using the EXEC CICS COLLECT STATISTICS MONITORING(taskno) command.

#### Local

The time stamp fields in the performance class data are local time to an application using the EXEC CICS COLLECT STATISTICS MONITORING(taskno) command.

For programming information on the EXEC CICS COLLECT STATISTICS command, see the *CICS System Programming Reference* manual.

#### MONitor

indicates that this panel relates to a MONITOR inquiry.

#### NOConverse

Separate performance class records are produced for each pair of terminal control I/O requests (Converse or Send/Receive pair).

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

#### NOExcept

Exception-class monitoring data is not being collected.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

#### NOPerformance

Performance-class monitoring data is not being collected.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

#### NOSyncpoint

A transaction performance class record is not produced.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

#### OFF

No monitoring data is accumulated or collected, irrespective of the settings of the monitoring data classes.

**Note:** You can reset this value by overtyping it with a different value.

**ON**

Monitoring data is accumulated continuously, and is collected (written out to a DMF data set) for each of the classes of monitoring data that is active.

**Note:** You can reset this value by overtyping it with a different value.

**Performance**

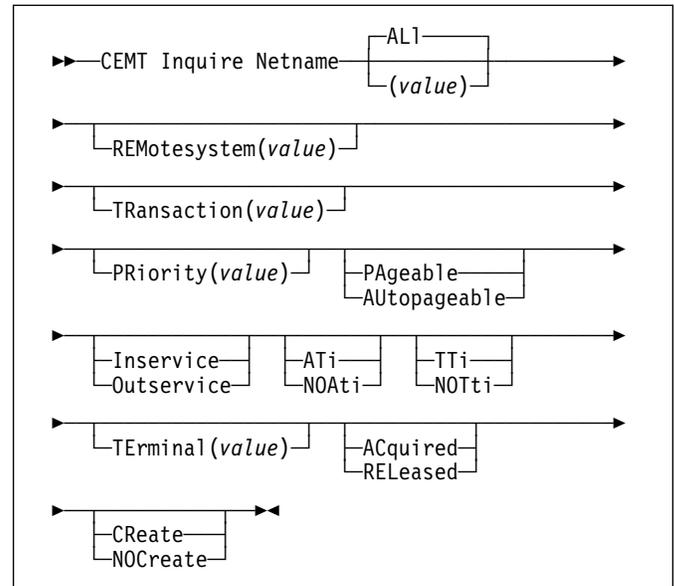
Performance-class monitoring data is being collected.

**Syncpoint**

A transaction performance class record is produced when a transaction takes an explicit or implicit syncpoint (unit-of-work), except when the syncpoint is part of task termination or a syncpoint rollback.

**CEMT INQUIRE NETNAME**

Retrieve information about a network.

**Context**

If you are familiar with network names, you may prefer to use this command as an alternative to CEMT INQUIRE TERMINAL.

**Description**

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE NETNAME (the minimum abbreviation is CEMT I N). You get a display that lists the current status.
- Type CEMT INQUIRE NETNAME (CEMT I N) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i n ins ati`, the resulting display will show you the details of only those netnames that are in service and available for use.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).
- Use the CEMT SET NETNAME command (see page 106).

**ALI**

is the default. For example, if you inquire about terminals, you receive information about all terminals,

## CEMT INQUIRE NETNAME

unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

### (value)

specifies an 8-character network name.

The remaining operands for NETNAME are identical to those for CEMT INQUIRE TERMINAL.

## Examples

```
CEMT IN NETNAME
STATUS: RESULTS - OVERTYPE TO MODIFY
Net(IGKS205 ) Tra(CEMT) Pri( 000 ) Pag Ins Ati Tti ___
Ter(S205) Acq ___
```

Figure 47. CEMT INQUIRE NETNAME screen

**Note:** The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

## Options

### ACquired

CICS is in session with the logical unit represented by the terminal.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

### ATi

The terminal is available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

#### Notes:

1. You can reset this value by overtyping it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

### AUtopageable

Pages are written automatically to the terminal after the first in a series.

**Note:** You can reset this value by overtyping it with a different value.

### CReate

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request. This cannot be specified for IRC sessions.

**Note:** You can reset this value by overtyping it with a different value.

### Inservice

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED. For IRC sessions, INSERVICE means that the connection to the MRO partner is INSERVICE.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

### Netname

indicates that this panel relates to a NETNAME inquiry, and displays an 8-character network name.

For a physical terminal, the Net(name) is the name by which this terminal is known to VTAM.

For ISC sessions, the Net(name) is the name by which the session (or group of sessions) is known to VTAM.

For IRC sessions, the Net(name) is the name used by the connected region to logon to the interregion communication program (DFHIRP).

For EXCI sessions, the Net(name) is **DFHGEN** for generic sessions and, for specific sessions, it is the value of the user\_name parameter used in the EXCI INITIALISE\_USER call.

When an inquiry is made on DFHGEN, the name is an 8-character field with a leading and trailing blank (' DFHGEN '). The name must be enclosed in quotes and include the blanks, so you enter the command on the screen as follows:

```
CEMT INQ NETNAME(' DFHGEN ')
```

### NOAti

The terminal is not available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

#### Notes:

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

### NOCreate

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

This cannot be specified for IRC sessions.

**NOTti**

This terminal cannot be used by the transactions that are initiated from this terminal.

**Notes:**

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

**Outservice**

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

For IRC sessions, OUTSERVICE means that the connection to the MRO partner is OUTSERVICE.

In an LU6.1 ISC session, the connection is set OUTSERVICE if there are no allocatable sessions left.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

**PAgeable**

Pages are written on request from the operator to the terminal after the first in a series.

**Note:** You can reset this value by overtyping it with a different value.

**PRiority(value) (VTAM only)**

displays a 3-character string indicating the priority of this terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value is in the range 0–255, where 255 is the highest priority.

**Note:** You can reset this value by overtyping it with a different value.

**RELeased**

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

**REMotesystem(value)**

displays the 4-character name of the remote system in which the program is to execute.

**TERminal(value)**

displays a 4-character terminal identifier (1–4 characters) as specified in an installed terminal definition.

**TRansaction(value)**

displays a 4-character string indicating the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

**TTi**

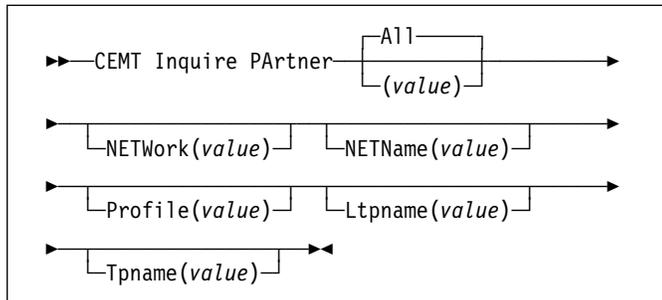
This terminal can be used by the transactions that are initiated from this terminal.

**Notes:**

1. You can reset this value by overtyping it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

## CEMT INQUIRE PARTNER

Retrieve information about the partner table.



### Context

INQUIRE PARTNER returns information from the partner table (side information table) installed in your system. There is no SET PARTNER function. However the INQUIRE PARTNER screen does allow you to type a D in the left-hand margin by the partnername to be discarded (the CEMT DISCARD PARTNER function).

For information on partners, see the *CICS Resource Definition Guide*.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE PARTNER (the minimum abbreviation is CEMT I PA). You get a display that lists the current status.
- Type CEMT INQUIRE PARTNER (CEMT I PA) followed by as many of the other attributes as are necessary to limit the range of information that you require.

All is the default.

(value)

specifies the 8-character partner name as specified in the installed partner definition.

### Examples

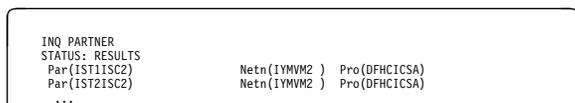


Figure 48. Initial screen layout for CEMT INQUIRE PARTNER

If a “?” is typed in column 2 (see Figure 48), an expanded display for the line in question is shown in Figure 49.

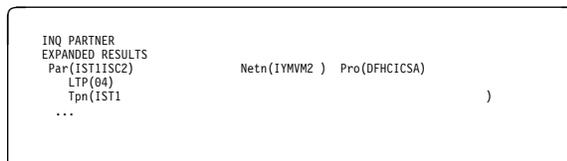


Figure 49. Expanded screen layout for CEMT INQUIRE PARTNER with TPNAME

To discard a partner, type a “D” by the partner name and press ENTER.

### Options

#### PARTner(value)

indicates that this panel relates to a PARTNER inquiry. and displays the 8-character partner name as specified in the installed RDO PARTNER resource definition.

#### NETName(value)

displays the 8-character name of the node at which the partner is located.

#### NETWork(value)

displays the 8-character name of the network in which the partner is located.

#### Profile(value)

displays the 8-character name of the CICS profile associated with the partner.

#### Ltpname(value)

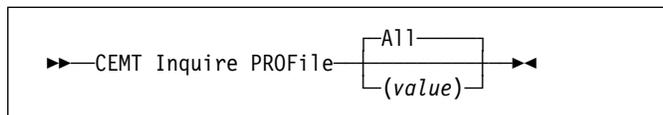
displays the length of the name of the remote transaction program (TPNAME), in bytes.

#### Tpname(value)

displays the 64-character name of the remote transaction program.

## CEMT INQUIRE PROFILE

Retrieve information about a transaction profile.



### Context

INQUIRE PROFILE returns information about the profiles installed in your system. There is no SET PROFILE function. However, the INQUIRE PROFILE screen does allow you to type a D in the left-hand margin by the name of the profile to be discarded (the DISCARD PROFILE function).

### Description

Press the Clear key and type CEMT INQUIRE PROFILE (the minimum abbreviation is CEMT I PROF).

You get a display screen, a sample of which is shown below.

All is the default.

(value)

is the name of a specific profile.

To discard a profile, type a "D" by the profile name and press ENTER.

### Examples



Figure 50. CEMT INQUIRE PROFILE screen

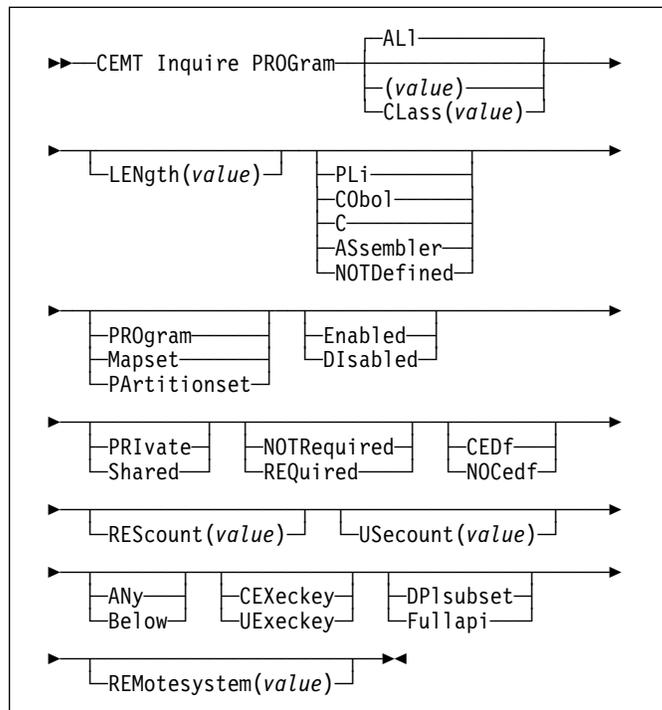
### Options

#### PROFile(value)

indicates that this panel relates to a PROFILE inquiry, and displays the 8-character name of an RDO PROFILE resource definition installed in your system.

## CEMT INQUIRE PROGRAM

Retrieve information about programs, maps, or partition sets.



### Context

INQUIRE PROGRAM returns information about the programs, map sets, and partition sets that are defined to your system.

Only programs that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

The default value is not shown unless it has been set by the user.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE PROGRAM (the minimum abbreviation is CEMT I PROG). You get a display that lists the current status.
- Type CEMT INQUIRE PROGRAM (CEMT I PROG) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter cent i prog a e, the resulting display will show you the details of only those programs that are written in assembler language and are enabled.

## CEMT INQUIRE PROGRAM

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET PROGRAM command (see page 108).

### ALI

is the default.

### CLass(*value*)

is the 2-character suffix of a program list table (PLT). Use this option to inquire on those programs defined in the specified PLT. Note that, unlike a shutdown PLT, it is not mandatory to define a program definition for a startup PLT. However, if you want to use the CLASS option, you must define and install a program resource definition for the PLT specified by “clasid”.

If the clasid specified is the suffix of a PLT that does not have a program definition, the INQUIRE PROGRAM CLASS(*clasid*) command returns a ‘CLASS NOT FOUND’ message.

### (*value*)

is a program identifier (1–8 characters), which is the name of a specific program entry in the table of installed program definitions. If you omit the program name, the ALL option is assumed by default.

You cannot specify the CLASS option and a program name.

## Examples

```

CEMT IN PROGRAM
STATUS: RESULTS - OVERTYPE TO MODIFY
Prog(APP001 ) Len(0000000) Pro Ena Pri Req Ced
  Res(000) Use(0000000) Bel Uex Fu1
Prog(DFHACP ) Len(0000216) Ass Pro Ena Pri
  Res(001) Use(0000003) Any Cex Fu1
Prog(DFHAKP ) Len(0005672) Ass Pro Ena Pri
  Res(000) Use(0000001) Bel Cex Fu1
Prog(DFHAMP ) Len(0000000) Ass Pro Ena Pri
  Res(000) Use(0000001) Any Cex Fu1
Prog(DFHAPATT) Len(0000632) Ass Pro Ena Sha
  Res(005) Use(0000017) Any Cex Fu1
Prog(DFHBRCP ) Len(0000000) Ass Pro Ena Pri
  Res(000) Use(0000000) Bel Cex Fu1
Prog(DFHCNV ) Len(0000000) Ass Pro Ena Pri
  Res(000) Use(0000000) Any Cex Fu1
Prog(DFHCETRA) Len(0000000) Ass Pro Ena Pri
  Res(000) Use(0000000) Any Cex Fu1
Prog(DFHCETRB) Len(0000000) Ass Pro Ena Pri
  Res(000) Use(0000000) Any Cex Fu1
+ Prog(DFHCETRC) Len(0000000) Ass Pro Ena Pri
  Res(000) Use(0000000) Any Cex Fu1
  
```

Figure 51. CEMT INQUIRE PROGRAM screen

**Note:** The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

## Options

### ANY

The program can handle 31-bit addresses. The address of the data can be above or below the 16MB boundary.

CICS returns an address above the 16MB boundary if possible.

### ASsembler

The program is written in Assembler. The language is that in which the program is written, if known, or the defined language obtained from the resource definition if not.

### Below

The program can handle only 24-bit addresses and must therefore be given addresses of data located below the 16MB boundary. If necessary, CICS copies data below the 16MB boundary before passing its address to the application program.

### C

The program is written in C. The language is that in which the program is written, if known, or the defined language obtained from the resource definition if not.

### CObol

The program is written in COBOL. The language is that in which the program is written, if known, or the defined language obtained from the resource definition if not.

### CEDF

When EDF is active, CEDF initiation and termination screens are shown by CEDF while this program is running. Other screens are also shown unless the program was translated using the NOEDF translator option.

### CEXeckey

The program is executing in CICS access key, and has read and write access to both CICS-key and user-key storage.

### Disabled

The program is not available for use.

**Note:** Programs beginning with “DFH” cannot be disabled because these characters are reserved for use by CICS.

**Note:** You can reset this value by overtyping it with a different value.

### DPIsubset

The program is restricted to the DPL API subset, as for a distributed program link request, when it runs in the local CICS region.

A program is always restricted to the DPL subset when it is invoked in a remote region via a DPL request, even if this option is not specified.

**Note:** You can reset this value by overtyping it with a different value.

### Enabled

The program is available for use.

**Note:** You can reset this value by overtyping it with a different value.

**Fullapi**

The program is not restricted to the DPL subset of the CICS API when it runs in the local CICS region, and can use the full API.

A program is always restricted to the DPL subset when it is invoked in a remote region via a DPL request, regardless of this option.

**Note:** You can reset this value by overtyping it with a different value.

**LENgth(*value*)**

displays the size of the program in bytes. The value returned is 0000000 if the program has not been loaded during this CICS run.

**Mapset**

The entry is defined in the CICS system definition as a map set.

**NOCEdf**

All CEDF activities, including initiation and termination screens, stop while this program is being processed.

**NOTDEfined**

The language in which the program has been written is not defined.

**NOTREquired**

The program status is either LOADABLE or NOT\_LOADED, and you do not have to specify CEMT SET PROGRAM NEWCOPY or CEMT SET PROGRAM PHASEIN.

**PARtitionset**

The entry is defined in the CICS system definition as a partition set.

**PLi**

The program is written in PL/I. The language is that in which the program is written, if known, or the defined language obtained from the resource definition if not.

**PRIVate**

The next new copy of the program is to be loaded from a sublibrary of the LIBDEF search chain for the CICS job when the next NEWCOPY or PHASEIN request is received.

**Note:** You can reset this value by overtyping it with a different value.

**PROgram**

The entry is defined in the CICS system definition as a program.

**REMOtesystem(*value*)**

displays the 4-character name of the remote system in which the program is to execute.

**REQUIred**

The program status is NOT\_LOADABLE. This means that a search for the program failed during a load operation, and the program has been marked as not loadable to avoid the overhead of further load attempts.

You need to specify CEMT SET PROGRAM NEWCOPY or CEMT SET PROGRAM PHASEIN to reset the status to NOT\_LOADED, which enables the program to be loaded. However, before doing this, you should ensure that there is a copy of the program in a sublibrary of the LIBDEF search chain for the CICS job.

**REScount(*value*)**

displays a 3-character string identifying the number of separate invocations of this program that are taking place at the time of this inquiry.

**Shared**

CICS is using, or will use, a shared copy of the program from the shared virtual area (SVA) when the next NEWCOPY or PHASEIN request is received. If no SVA version is available, the program is loaded from a sublibrary of the LIBDEF search chain for the CICS job.

**Note:** You can reset this value by overtyping it with a different value.

**UExecutekey**

The program is executing in user access key, and has write access to user-key storage, but read-only access to CICS-key storage.

**USEcount(*value*)**

displays a 10-character string identifying the total number of times the program has been executed since the start of the current CICS session.

## CEMT INQUIRE QUEUE

See CEMT INQUIRE TDQUEUE on page 76. (QUEUE is accepted for INQUIRE commands, but the correct keyword is TDQUEUE.)

## CEMT INQUIRE STATISTICS

Retrieve statistics information.

▶—CEMT Inquire Statistics—▶

### Context

INQUIRE STATISTICS tells you the interval during which statistics are accumulated, the end-of-day time for shutdown (or logical end-of-day) statistics, the time at which statistics are next recorded (that is, written to a DMF data set), and whether statistics recording is currently on or off.

For details of how to print statistics using the CICS-supplied utility program DFHSTUP, see the *CICS Operations and Utilities Guide*.

NEXTTIME cannot be specified on an INQUIRE or SET STATISTICS command, but its value is displayed when INQUIRE STATISTICS is issued. NEXTTIME indicates the time at which statistics will next be recorded and reset. If statistics are in the OFF condition, this is at the end of the day. Otherwise, in the ON condition, it is the earlier time of either the next interval to occur or the end of the day.

### Description

Press the Clear key and type CEMT INQUIRE STATISTICS (the minimum abbreviation is CEMT I ST).

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET STATISTICS command (see page 110).

### Examples

```
CEMT IN STATI
STATUS: RESULTS - OVERTYPE TO MODIFY
Sta On ___ Int( 030000 ) End( 000000 ) Nex(150000)
```

Figure 52. CEMT INQUIRE STATISTICS screen

**Note:** The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

### Options

**Endofday(hhmmss)**

displays the end-of-day time for recording statistics. At end-of-day, the current values of the CICS statistics counters are written out to a DMF data set and the statistics counters are reset.

End-of-day times must be in the range 000000–235959. The default end-of-day time is 12 midnight (000000).

**Interval(hhmmss)**

displays the length of time during which the statistics counters are incremented. At the end of each interval, the accumulated statistics are recorded and the statistics counters are reset.

**Note:** You can reset this value by overtyping it with a different value.

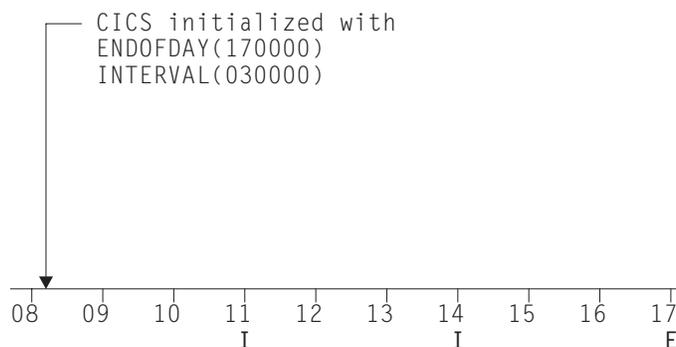
Interval times must be in the range 000100–240000. The default interval value is 030000. The interval value can be adjusted, but will have no effect unless the statistics recording status is set ON. You can set the statistics recording status ON or OFF using the RECORDING option on this command or by using the STATRCD system initialization parameter.

The arrival of the ENDOFDAY time always causes the current interval to be ended (possibly prematurely) and a new interval to be started. Only end-of-day statistics are recorded at the end-of-day time, even if it coincides exactly with the expiry of an interval.

Changing the ENDOFDAY value has an immediate effect on the times at which INTERVAL statistics are recorded. New interval expiry times are recalibrated in accordance with the new end-of-day time.

When you change the INTERVAL value or the ENDOFDAY value (and also when CICS is initialized), the length of the current (or first) interval is adjusted so that it expires after an integral number of intervals from the end-of-day time.

These rules are illustrated by the following example, where **I** indicates an interval recording, INTERVAL is set at 3-hourly intervals, CICS is initialized at 0815 hours, and **E** indicates the ENDOFDAY setting at 1700 hours.



**Note:** In this example, there would have been an interval at 0800 hours if CICS had been initialized earlier.

If you want your end-of-day recordings to cover 24 hours, set INTERVAL to 240000.

**NExtime(hhmmss)**

displays the time at which statistics are next recorded and reset. This is the expiry time of the current interval or the end-of-day time, whichever is earlier.

**NORECordnow**

Existing statistics are not written to a DMF data set.

**Notes:**

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. When both Rec(ordnow) and Res(etnow) are specified, statistics counters are written to the DMF data set and reset. The statistics that you are given are those collected since the last ENDOFDAY or INTERVAL collection, or since the last time the RESETNOW function was used in this or the PERFORM STATISTICS command.

**NORESetnow**

The statistics counters are not to be reset.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

**OFF**

Interval statistics are not being recorded. Counters are still incremented as usual, and the recording of end-of-day, requested, and unsolicited statistics is still made. End-of-day statistics, requested statistics, and unsolicited statistics are always recorded, irrespective of the setting of the ON or OFF option. (Requested statistics are those called for by a CEMT PERFORM STATISTICS command or by an EXEC CICS PERFORM STATISTICS RECORD command.)

**Note:** You can reset this value by overtyping it with a different value.

**ON**

Interval statistics are being recorded. Counters are incremented as usual, and are reset at the expiry of each interval and at end-of-day. End-of-day statistics, requested statistics, and unsolicited statistics are always recorded, irrespective of the setting of the ON or OFF option. (Requested statistics are those called for by a CEMT PERFORM STATISTICS command or by an EXEC CICS PERFORM STATISTICS RECORD command.)

**Note:** You can reset this value by overtyping it with a different value.

**RECordnow**

Existing statistics are to be written to a DMF data set. The statistics are those collected since the last ENDOFDAY or INTERVAL collection, or since the last

## CEMT INQUIRE SYDUMPCODE

time the RESETNOW function was used in this or the PERFORM STATISTICS command.

### Notes:

1. You can reset this value by overtyping it with a different value.
2. RECORDNOW takes effect only when the recording status is changed from OFF to ON or from ON to OFF.

### RESetnow

The statistics counters are to be reset. The reset takes effect only if the recording option is changed from OFF to ON or from ON to OFF. For information about the effect of reset on each individual counter, see the CICS statistics tables in the *CICS Performance Guide*.

The action, for each counter, is one of the following:

- Not reset
- Reset to zero
- Reset to 1
- Reset to current value (this applies to peak values)
- An exception to the above.

### Notes:

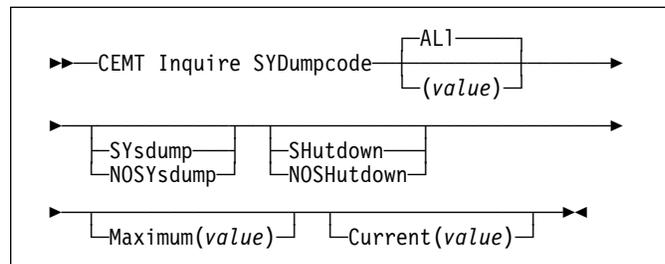
1. You can reset this value by overtyping it with a different value.
2. RESETNOW takes effect only when the recording status is changed from OFF to ON or from ON to OFF.

### Statistics

indicates that this panel relates to a STATISTICS inquiry.

## CEMT INQUIRE SYDUMPCODE

Retrieve information about the system dump code table.



### Context

INQUIRE SYDUMPCODE allows you to see the current settings of the entries in the system dump table. 'NO' settings (NOSYSDUMP, for example) are shown as blank.

The INQUIRE command tells you:

- The system dump code or message identifier
- Whether or not CICS takes a system dump
- Whether the system dump request is local or related
- Whether or not CICS is to shut down following the dump
- The current number of dumps taken
- The maximum number of dumps.

A system dump code is the CICS message number with the DFH prefix removed. Typically this leaves a 6-character code comprising 2 alphabetic characters and 4 numeric characters, for example AP0001. The command syntax permits up to 8 characters for the dump code and the dump codes you specify are padded with trailing spaces.

Each message has its own system default actions that you cannot necessarily override with the SET command. For example, when a serious error occurs, CICS shuts down even if you have asked for no shut down. See the *VSE/ESA Messages and Codes Volume 3* manual for information about the system action for each message.

There are other system parameters that take priority over your dump table entries. For example, EXEC CICS SET SYSTEM DUMPING NOSYSDUMP, or a DUMP=NO system initialization parameter inhibits system dumping. For information on using dumps, see the *CICS Problem Determination Guide*.

The transaction dump command SET TRDUMPCODE can also cause CICS to produce system dumps for the specified transaction dump code.

## Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE SYDUMPCODE (the minimum abbreviation is CEMT I SYD). You get a display that lists the current status.
- Type CEMT INQUIRE SYDUMPCODE (CEMT I SYD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i syd sy sh`, the resulting display will show you the details of only those system dump codes for which a system dump is to be taken and CICS is to be shut down.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET SYSDUMPCODE command (see page 112).

### ALI

is the default.

### (value)

is an 8-character system dump code. See the *VSE/ESA Messages and Codes Volume 3* manual for details of the codes.

## Examples

```
CEMT IN SYD
STATUS: RESULTS - OVERTYPE TO MODIFY
Syd(AP0001 ) Sys ___ Max( 001 ) Cur(0000)
```

Figure 53. CEMT INQUIRE SYDUMPCODE screen

## Options

### Current(value)

displays the number of dump calls that have been made for this dump code since it was last reset.

### Maximum(value)

displays the maximum number of dump calls for this system dump code which result in system dumps being taken. The value is in the range 0-999 and can be specified by using the SYDUMAX system initialization parameter. A value of 999 means the default, ‘no limit’.

### NOSHUTDOWN

CICS is not to be shut down after the occurrence of an error corresponding to this dump code.

### NOSYSDUMP

A system dump (VSE SDUMP) is not taken for this system dump code.

### SHUTDOWN

CICS is to be shut down after the occurrence of an error corresponding to this dump code.

### SYSDUMP

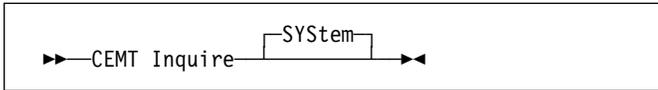
A system dump (VSE SDUMP) is taken for this system dump code.

### SYDUMPCODE(value)

indicates that this panel relates to a SYDUMPCODE inquiry, and displays an 8-character system dump code. See the *VSE/ESA Messages and Codes Volume 3* for details about CICS system dump codes.

## CEMT INQUIRE SYSTEM

Retrieve information about CICS.



Press the Clear key to clear the screen and type CEMT INQUIRE SYSTEM (the minimum abbreviation is CEMT I SYS). You get a display that lists the current status. You can then tab to the highlighted or blank fields and overwrite them with the required values.

The SYSTEM keyword does not have to be typed. If you type just CEMT I, SYSTEM is assumed as the default.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35)
- Use the CEMT SET SYSTEM command (see page 114).

## Examples

```

I SYS
STATUS: RESULTS - OVERTYPE TO MODIFY
AGing( 32768 )          PROGAUTICHg(CTLGMODIFY)
AKp( 00200 )           PROGAUTOExit( DFHPGADx )
CDsasize( 00524288 )   PROGAUTOInst( AUTOINACTIVE )
CIstslevel( 010100 )  RDSasize( 00524288 )
CMDPROTEct( CMDPROT ) REENTPROTEct( REENTPROT )
DFItuser( CICSID1 )   rELease( 0410 )
DSalimit( 05242880 )  RUnaway( 0005000 )
DTrprogram( WLMdYP )  SCandelay( 0500 )
DUmping( SYSdUMP )   SDsasize(00262144)
ECdsasize( 0002097152 ) SOSStatus( NOTSOS )
EDSalimit( 0020971520 ) Storeprotect( INACTIVE )
ERdsasize( 0003145728 ) Time( 0001000 )
ESDsasize( 0001048576 ) Udsasize( 00262144 )
EUdsasize( 0001048576 )
MxAtaskS( 032 )
MRobatch( 001 )
OPRel( 64 )
OPSys( E )

```

Figure 54. CEMT INQUIRE SYSTEM screen

## Options

### AGing(*value*)

displays the time factor for CICS to use in the priority aging algorithm for incrementing the priority of a task. The value is expressed as “milliseconds per unit of priority”, and is in the range 0–65535.

The priority aging factor is defined initially by the PRTYAGE system initialization parameter, in which the value represents the number of milliseconds that must elapse before the priority of a waiting task can be adjusted upward by 1. See the *CICS System Definition Guide* for information about the PRTYAGE parameter.

**Note:** You can reset this value by overtyping it with a different value.

### AKp(*value*)

displays the activity keypoint trigger value, which is the number of logging operations between the taking of keypoints. It is in the range 200–65535.

**Note:** You can reset this value by overtyping it with a different value.

You cannot change this value if AKPFREQ=0 was specified at system initialization.

### CIcstslevel(*value*)

displays a 6-character value identifying the version, release and modification level of the CICS Transaction Server for VSE/ESA product under which the CICS region is running. The value is of the form *vvrrmm*—CICS Transaction Server for VSE/ESA Release 1 returns the value 010100.

### CDsasize(*value*)

displays the size, in bytes, of the CICS dynamic storage area (CDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

### CMDPROTEct(*value*)

displays whether command protection, which validates start addresses passed on in CICS commands, is active or not (that is, whether the CMDPROT system initialization parameter specifies YES or NO). The values are:

#### CMDPROT

Command protection is active. CICS checks to ensure that the task itself has write access to the storage referenced on the command before writing to the storage on the task’s behalf.

#### NOCmdprot

Command protection is not active. CICS does not check to ensure that the task itself has write access to the storage referenced on the command before writing to the storage on the task’s behalf.

### DFItuser(*value*)

displays the userid of the default user for this instance of the CICS region.

### DSalimit(*value*)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS System Definition Guide* for a description of the DSALIM system initialization parameter.)

**Note:** You can reset this value by overtyping it with a different value.

If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit

immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

**DT**program(*value*)

displays the name of the program defined to control the dynamic routing of programs.

**Note:** You can reset this value by overtyping it with a different value.

**DU**mping(*value*)

displays whether the taking of CICS system dumps is suppressed.

The values are:

**SY**sdump

System dumps are not suppressed.

**NO**Sysdump

System dumps are suppressed.

**EC**dsasize(*value*)

displays the size, in bytes, of the extended CICS dynamic storage area (ECDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

**ED**salimit(*value*)

displays the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside above the 16MB boundary. (See the *CICS System Definition Guide* for a description of the EDSALIM system initialization parameter.)

**Note:** You can reset this value by overtyping it with a different value.

If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

**ER**dsasize(*value*)

displays the size, in bytes, of the extended read-only dynamic storage area (ERDSA) above the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

**ES**dsasize(*value*)

displays the current size of the extended shared dynamic storage area (ESDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

**EU**dsasize(*value*)

displays the size, in bytes, of the extended user dynamic storage area (EUDSA) above the 16MB boundary. The size of this storage area is calculated and managed by

CICS automatically, within the overall limits specified for all the DSAs that reside above the 16MB boundary.

**MA**xtasks(*value*)

displays the maximum number of user tasks, both active and suspended, allowed at any one time in the CICS system. It must have a value in the range 1–999.

**Notes:**

1. You can reset this value by overtyping it with a different value.
2. The MAXTASKS value does *not* include CICS system tasks.
3. The value assigned to MAXTASKS might be less than the requested value, because of CICS storage constraints. If this occurs, the message CEILING REACHED is displayed when the request is made, and MAXTASKS is set to the largest possible value.

**MR**obatch(*value*)

displays the number of MRO requests from connected regions which are to be batched before this region is posted. It is a value in the range 1–255.

**Note:** You can reset this value by overtyping it with a different value.

**OP**Rel(*value*)

displays the formal release number of the operating system currently running. For example, for VSE/ESA Version 2 Release 4, because the VSE supervisor is at issue 6.4, the reply is "64."

**OP**Sys(*value*)

displays the type of operating system currently running. A value of "E" represents VSE/ESA.

**PROG**AUTOctlg

displays whether autoinstalled program definitions are to be cataloged. The values are:

**CTLG**All

All autoinstalled program definitions are to be cataloged and restored on a warm or emergency start.

**CTLG**Modify

Autoinstalled program definitions are to be cataloged only if they are modified (for example, by a CEMT SET PROGRAM command), so that the modified definitions are restored on a warm or emergency restart.

**CTLG**None

No autoinstalled program definitions are to be cataloged. They are autoinstalled again after a warm or emergency start.

**Note:** You can reset this value by overtyping it with a different value.

## CEMT INQUIRE SYSTEM

### **PROGAUTOExit**(*value*)

displays the name of the user-provided program that is called by the program autoinstall code to select or modify a model definition.

**Note:** You can reset this value by overtyping it with a different value.

### **PROGAUTOInst**

displays whether autoinstall for programs is active or inactive. The values are:

#### **AUTOActive**

Autoinstall for programs is active. On first use, if a program, mapset, or partitionset is not defined, the definition is created dynamically.

#### **AUTOInactive**

Autoinstall is not active. If a program is not defined, a PGMIDERR or transaction abend occurs when it is referenced.

**Note:** You can reset this value by overtyping it with a different value.

### **RDSAsize**(*value*)

displays the current size of the read-only dynamic storage area (RDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

### **REENTPROTECT**(*value*)

displays whether read-only storage is in use for reentrant programs (that is, whether the RENTPGM system initialization parameter specifies PROTECT or NOPROTECT). The values are:

#### **NOReentprotect**

CICS allocates storage for the read-only DSAs (RDSA and ERDSA) from CICS-key storage. Reentrant programs do not have the protection of residing in read-only storage, and can be modified by programs executing in CICS key.

#### **REENTPROT**

CICS allocates storage for the RDSA and ERDSA from key-0, non-fetch protected, storage. CICS loads reentrant programs into this storage, and the programs are protected by residing in read-only storage.

### **RELease**(*value*)

displays the level of the CICS code present. This is a 4-digit number representing the CICS version and release numbers. For example, CICS Transaction Server for VSE/ESA Release 1 has the value ( 0410 ).

### **RU**naway(*value*)

displays the interval, in milliseconds, for which a task can have control before it is assumed to be looping.

**Note:** You can reset this value by overtyping it with a different value.

If you are resetting this value, you can specify 0, or a value in the range 500–2700000. The value you specify is rounded down to a multiple of 500.

CICS purges a task if the task has not given up control after this interval (that is, CICS assumes that the task is looping). If you specify zero, runaway task control is inoperative (that is, tasks do not get purged if they appear to be looping). The value is independent of, and can be less than, the value in the TIME operand.

CICS runaway-task detection is based upon task time (that is, the interval is reset each time a task receives control of the processor, and is then decremented while the task is in control). You do not, therefore, need to allow for the effect of other jobs when setting the runaway value.

### **SC**andelay(*value*)

displays the maximum number of milliseconds between the receipt of a VTAM request, and the time when CICS begins to process the request. The number is in the range 0–5000, and is less than or equal to the TIME value.

#### **Notes:**

1. You can reset this value by overtyping it with a different value.
2. In the summary report of the dispatcher statistics, SCANDELAY is referred to as ICVTSD.

### **SD**sasize(*value*)

displays the current size of the shared dynamic storage area (SDSA). The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

### **SOS**status(*value*)

displays whether CICS is short on storage in any of the dynamic storage areas above 16MB. The values returned are:

#### **NOT**sos

CICS is not short on storage in any of the dynamic storage areas.

#### **SOSA**bove

CICS is short on storage in at least one dynamic storage area above 16MB, but not below.

#### **SOSB**elow

CICS is short on storage in at least one dynamic storage area below 16MB, but not above.

#### **SOS**

CICS is short of storage in at least one of the dynamic storage areas above 16MB, and at least one below the 16MB line.

### **ST**oreprotect(*value*)

displays whether storage protection is active in the CICS region. The values returned are:

**Active**

CICS is operating with the CICS storage protection facility.

**Inactive**

CICS is operating without the CICS storage protection facility.

See the description of the STGPROT system initialization parameter in the *CICS System Definition Guide* for background information about CICS storage protection.

**Time(value)**

displays the interval, in milliseconds, for which CICS releases control to the operating system if no transactions are ready to resume processing. This interval is known as the 'region exit interval'.

**Note:** You can reset this value by overtyping it with a different value.

It can have a value in the range 100–3600000, and must be greater than or equal to the SCANDELAY value.

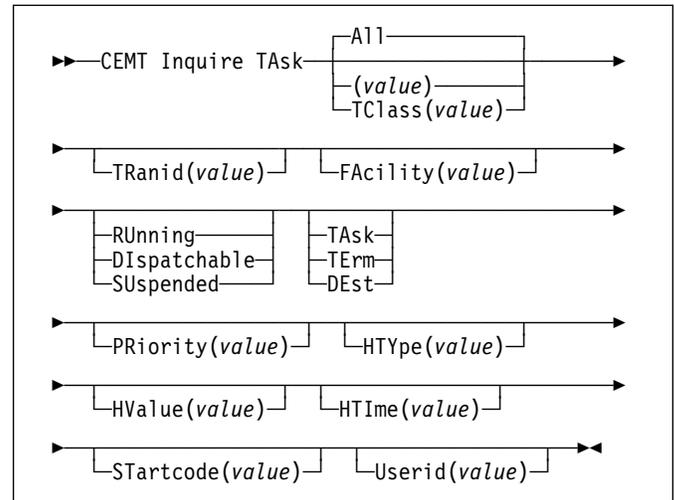
**Note:** In the summary report of the dispatcher statistics, TIME is referred to as ICV.

**Udsasize(value)**

displays the size, in bytes, of the user dynamic storage area (UDSA) below the 16MB boundary. The size of this storage area is calculated and managed by CICS automatically, within the overall limits specified for all the DSAs that reside below the 16MB boundary.

**CEMT INQUIRE TASK**

Retrieve information about a user task.

**Context**

INQUIRE TASK returns information about user tasks. Only information about user tasks can be displayed or changed; information about CICS-generated system tasks or subtasks cannot be displayed or changed. System tasks are those tasks started (and used internally) by CICS, and not as a result of a user transaction.

**Description**

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TASK (the minimum abbreviation is CEMT I TA). You get a display that lists the current status.
- Type CEMT INQUIRE TASK (CEMT I TA) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i ta ru i`, the resulting display will show you the details of only those tasks that are running and for which the data is not shared with other tasks (isolated).

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).
- Use the CEMT SET TASK command (see page 116).

All is the default.

## CEMT INQUIRE TASK

### TClass(*value*)

is the 8-character transaction class name to which the transaction belongs.

### (*value*)

is the CICS-generated task number, in the range 1–99999.

You cannot specify a list of identifiers, nor can you use the symbols \* and + to specify a family of tasks.

## Examples

```
IN TASK
STATUS: RESULTS - OVERTYPE TO MODIFY
Tas(0000028) Tra(CEMT) Fac(S205) Run Ter Pri( 255 ) _
```

Figure 55. CEMT INQUIRE TASK screen

**Note:** The underscore on the sample screen indicates the position of a ‘negative’ attribute (blank field).

The full range of keywords associated with this command is always displayed if the request is made from the VSE console. For other terminals, because of the large number of keywords supported, only one line of information for each result is displayed.

The full range of keywords usually requires 3 lines on a screen and is displayed only if you specifically select them by typing a ? in front of the chosen result. You get a display of all the keyword information in addition to the expanded SET syntax. However, the following keywords are not shown: USERID, if the user is not signed on, and HTIME, HTYPE, and HVALUE if the task is not suspended at the time of the inquiry. When shown, they are abbreviated: Hva for HVALUE and Hty for HTYPE, for example. Only one ? is honored for each ENTER input.

```
IN TASK
SYNTAX OF SET COMMAND
Tas(0000028) Tra(CEMT) Fac(S205) Run Ter Pri( 255 ) Sta(TO)
Use(CICSUSER) Rec(X'ABBAE2A38B050623')
CEMT Set Task() | < A11 >
< Priority() >
< Purge | Forcepurge >
```

Figure 56. CEMT INQUIRE TASK screen—full keywords

## Options

### DEst

The task was initiated by a destination trigger level as defined in the destination control table (DCT).

### DISpatchable

The task is dispatchable.

### FACility(*value*)

displays a 4-character string identifying the name of the terminal or queue that initiated the task. If no FACILITY value is displayed, the task was started without a facility.

### HTime(*value*)

displays the time (in seconds) that the task has been in the current suspended state.

### HTYpe(*value*)

displays the reason why the task is suspended. A null value indicates that there is no hold-up, except for the necessity of reaching the head of the queue.

### HValue(*value*)

displays a resource name, such as a file name, or a value such as a TCLASS value.

For information on the values that can appear in the HTYPE and HVALUE options, and how they can be used as an aid in problem determination, see the “resource type” and “resource name” details in the *CICS Problem Determination Guide*.

### PRiority(*value*)

displays the priority of the task, in the range 0–255 where 255 is the highest priority.

### RECunitid(*value*)

displays a unique identifier of the current unit of recovery. The identifier takes the form of an 8-byte clock value and is displayed in hexadecimal format.

### RUNning

The task is running.

### STartcode(*value*)

displays how this task was started. The values are:

- D** A distributed program link (DPL) request. The program cannot issue I/O requests against its principal facility or any syncpoint requests.
- DS** A distributed program link (DPL) request, as for code D, with the exception that the program can issue syncpoint requests.
- QD** A transient data trigger level was reached.
- S** Start command (no data)
- SD** Start command (with data)
- TO** The operator typed a transaction code at the terminal.
- TP** The transaction was started by presetting the transaction ID for the terminal.
- U** User-attached task.

### SUspended

The task is suspended.

### TASk

The task was initiated from another task.

**TErm**

The task was initiated from a terminal.

**TRanid(*value*)**

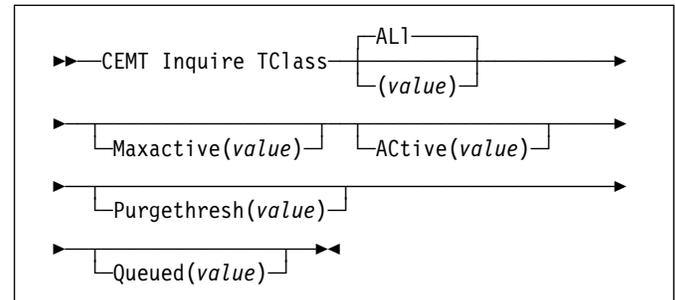
displays a 4-character string identifying the transaction name associated with the task.

**Userid(*value*)**

displays the user currently associated with the task.

**CEMT INQUIRE TCLASS**

Retrieve information about tasks within a task class.

**Context**

INQUIRE TCLASS returns information about the current and maximum number of tasks, the purge threshold, and the status of a user-defined task class.

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TCLASS (the minimum abbreviation is CEMT I TC). You get a display that lists the current status.
- Type CEMT INQUIRE TCLASS (CEMT I TC) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i tc p(value)`, the resulting display will show you the details of only those transaction classes that have a purge threshold of the value indicated.

To change various attributes, use the CEMT SET TCLASS command.

**ALI**

is the default.

**(*value*)**

is the 8-character transaction class name.

## Examples

```

INQUIRE TCLASS
STATUS: RESULTS - OVERTYPE TO MODIFY
Tcl(DFHCTL01) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL02) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL03) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL04) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL05) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL06) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL07) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL08) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCTL09) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
Tcl(DFHCLL10) Max( 001 ) Act(000) Pur( 0000000 )
Que(0000000)
    
```

Figure 57. CEMT INQUIRE TCLASS screen

## Options

### Active(value)

displays the total number of transactions that are currently active in a user-defined transaction class.

### Maxactive(value)

displays the largest number of transactions in the transaction class which are allowed to run concurrently. The value can be in the range 0-999—a value of zero indicates that **all** tasks are to be queued.

### Purgethresh(value)

displays the limit at which the queuing transactions are purged for the transaction class. It can have a value in the range 0000000–1000000. Zero means that the size of the queue is unlimited (other than by the storage made available to attach tasks). A nonzero number “n” means that the first (n-1) transactions to arrive are queued and the nth is purged.

### Queued(value)

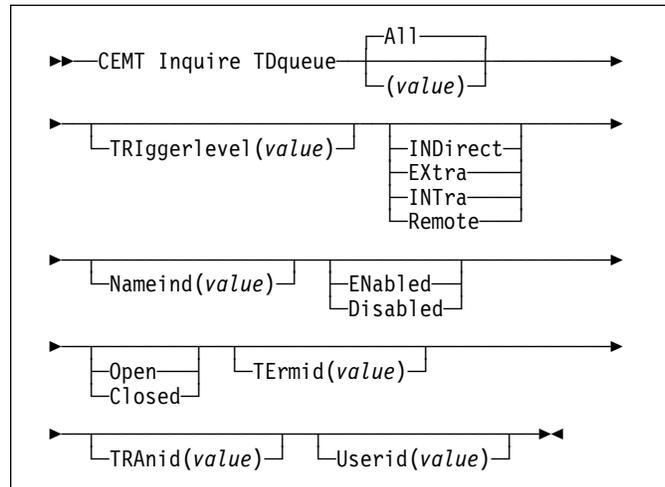
displays the total number of current tasks that are suspended because the class maximum has been reached.

### TClass

indicates that this panel relates to a TCLASS inquiry.

## CEMT INQUIRE TDQUEUE

Retrieve information about transient data queues.



## Context

INQUIRE TDQUEUE returns information about a named transient data queue that is defined in the destination control table (DCT).

## Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TDQUEUE (the minimum abbreviation is CEMT I TD). You get a display that lists the current status.
- Type CEMT INQUIRE TDQUEUE (CEMT I TD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i td ind en`, the resulting display will show you the details of only those transient data queues that are indirect and enabled.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET TDQUEUE command (see page 117).

**All** is the default.

### (value)

is the identifier (1–4 characters) of a transient data queue. Queue names beginning with “C” are normally reserved for use by CICS.

## Examples

```

CEMT IN TDQUEUE
STATUS: RESULTS - OVERTYPE TO MODIFY
Tdq(ACEL) Ext Ena C1o
Tdq(AP02) Tri( 00001 ) Int Ena
Tra(AP03)
Tdq(CADL) Ind Nam(CSML)
Tdq(CCP1) Ind Nam(CSML)
Tdq(CCSE) Ind Nam(CSML)
Tdq(CCSO) Ind Nam(CSML)
Tdq(CMIG) Ind Nam(CSML)
Tdq(CPLD) Ind Nam(CSML)
Tdq(CPL1) Ext Ena 0pe
Tdq(CRDI) Ind Nam(CSML)
Tdq(CSCS) Ind Nam(CSML)
Tdq(CSDL) Ind Nam(CSML)
Tdq(CSFL) Ind Nam(CSML)
Tdq(CSKL) Ind Nam(CSML)
+ Tdq(CSML) Ext Ena 0pe

```

Figure 58. CEMT INQUIRE TDQUEUE screen

## Options

### Closed

The queue is closed.

**Note:** You can reset this value by overtyping it with a different value.

### Disabled

The queue cannot be accessed by applications, although it can still be open. Queues with names beginning with "C" cannot be disabled because they are usually reserved for use by CICS.

**Note:** You can reset this value by overtyping it with a different value.

### ENabled

The queue can be accessed by applications.

**Note:** You can reset this value by overtyping it with a different value.

### EXtra

The queue type is extrapartition.

### INDirect

The queue type is indirect. The name of the final target queue is shown in the next field.

### INTRa

The queue type is intrapartition.

### Nameind(*value*) (indirect queues only)

displays a 4-character string identifying the name of the queue pointed to by the indirect queue.

### Open

The queue is open.

**Note:** You can reset this value by overtyping it with a different value.

### Remote

The queue type is remote.

### TDqueue

indicates that this panel relates to a TDQUEUE inquiry, and displays the 4-character identifier of a transient data

queue. Queue names beginning with "C" are normally reserved for use by CICS.

### TErmid(*value*)

displays the 4-character name of the terminal or session to be associated with this queue when automatic transaction initiation occurs. See also **Tranid** and **Triggerlevel**.

### TRAnid(*value*)

displays the 4-character identifier of the transaction that is to be initiated automatically when the queue trigger level is reached.

### TRiggerlevel(*value*) (intrapartition queues only)

displays the number of requests for output to a queue that must accrue before automatic transaction initiation (ATI) occurs.

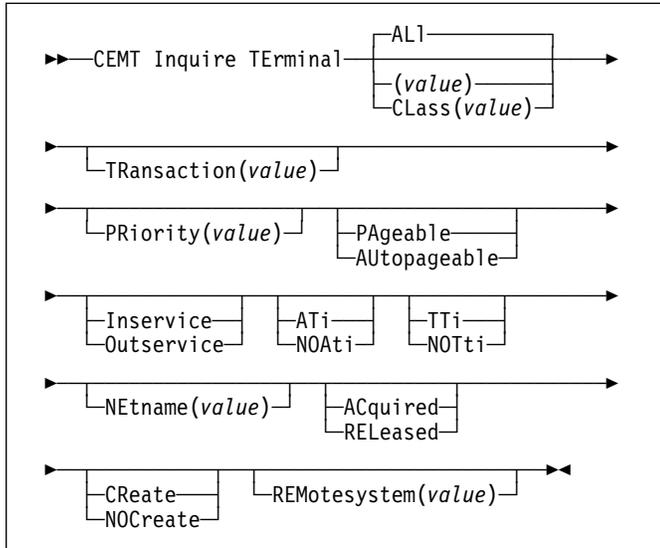
**Note:** You can reset this value by overtyping it with a different value. The number can be between 0 and 32767.

### Userid(*value*)

displays the 8-byte identifier associated with the intrapartition queue intended for ATI.

## CEMT INQUIRE TERMINAL

Retrieve information about terminals.



### Context

INQUIRE TERMINAL returns information about a named terminal defined in the terminal control table (TCT).

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session that has been generated by the CEDA transaction.

If you are familiar with network names, you may prefer to use the command that uses these names. See “CEMT INQUIRE NETNAME” on page 59.

The message “TEMP OUT SERVICE” can be displayed if recovery is in progress for the terminal. The “TEMP OUT SERVICE” indicator is reset by simply refreshing the screen, or by overtyping the “INS” field with “INS” or “OUT”. If “TEMP OUT SERVICE” continues to be displayed, the cause of the indicator should be investigated.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TERMINAL (the minimum abbreviation is CEMT I TE). You get a display that lists the current status.
- Type CEMT INQUIRE TERMINAL (CEMT I TE) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i te i at`, the resulting display will show you the details of only those terminals that are in service and available for use.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET TERMINAL command (see page 118).

#### ALI

is the default. For example, if you inquire about terminals, you receive information about all terminals, unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

#### (value)

is a terminal identifier (1–4 characters) as specified in an installed terminal definition. This includes all terminals and sessions, but not logical device codes (LDCs), model TCTTEs, mode groups, or system entries. See also **Netname**.

If the terminal name is, for example, S201, this option is coded thus:

```
CEMT INQUIRE TERMINAL(S201)
```

#### CLass(value)

is the 1- or 2-character suffix of a terminal list table (TLT).

If you do not specify a termid or class identifier, by default you receive information about all the terminals.

### Examples

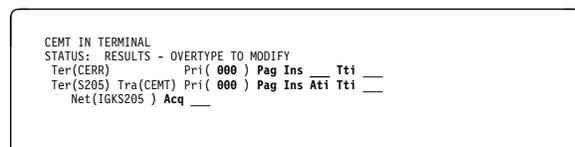


Figure 59. CEMT INQUIRE TERMINAL screen

**Note:** The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

## Options

### ACquired

CICS is in session with the logical unit represented by the terminal.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

### ATi

The terminal is available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

**Note:** You can reset this value by overtyping it with a different value.

### AUtopageable

Pages after the first in a series are written to the terminal automatically.

**Note:** You can reset this value by overtyping it with a different value.

### CReate

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request.

### Inservice

The terminal is available for use. For VTAM, Ins(ervice) means that the terminal can be ACQUIRED. For IRC sessions, Ins(service) means that the connection to the MRO partner is INSERVICE.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

### NEtname(*value*)

displays an 8-character network name.

For a physical terminal, the Net(name) is the name by which this terminal is known to VTAM.

For ISC sessions, the Net(name) is the name by which the session (or group of sessions) is known to VTAM.

For IRC sessions, the Net(name) is the name used by the connected region to log on to the interregion communication program (DFHIRP).

### NOAti

The terminal is not available for use by transactions that are automatically initiated from within CICS or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

### Notes:

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

### NOCreate

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

### NOTi

This terminal cannot be used by transactions by the transactions that are initiated from this terminal.

### Notes:

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

### Outservice

The terminal is not available for use. Setting a terminal Out(service) means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal Out(service) also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated. For IRC sessions, Out(service) means that the connection to the MRO partner is OUTSERVICE.

In an LU6.1 ISC session, the connection is set Out(service) if there are no allocatable sessions left.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

### PAgeable

Pages after the first in a series are written to the terminal on request from the operator.

**Note:** You can reset this value by overtyping it with a different value.

### PRiority(*value*) (VTAM only)

displays a 3-character string identifying the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for

## CEMT INQUIRE TRANSACTION

terminals that are ISC sessions being used as alternative facilities.

**Note:** You can reset this value by overtyping it with a different value.

The value is in the range 0–255, where 255 is the highest priority.

### RELeased

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

**Note:** For physical terminals and LU6.1 sessions, you can reset this value by overtyping it with a different value.

### REMOtesystem(*value*)

displays a 4-character system identifier specified in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system.

### TERminal

indicates that this panel relates to a TERMINAL inquiry, and displays the 4-character terminal identifier as defined in an installed terminal definition. This includes all terminals and sessions, but not logical device codes (LDCs), model TCTTEs, mode groups, or system entries.

### TRansaction(*value*)

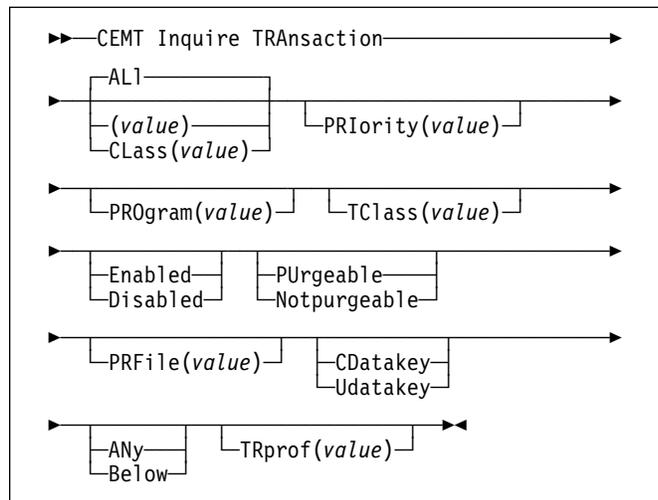
displays a 4-character string identifying the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

**TTi** This terminal can be used by transactions by the transactions that are initiated from this terminal.

**Note:** You can reset this value by overtyping it with a different value.

## CEMT INQUIRE TRANSACTION

Retrieve information about transactions.



### Context

INQUIRE TRANSACTION returns information about a selected transaction.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TRANSACTION (the minimum abbreviation is CEMT I TRANS). You get a display that lists the current status.
- Type CEMT INQUIRE TRANSACTION (CEMT I TRANS) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i trans en pu`, the resulting display will show you the details of only those transactions that are enabled and system-purgeable.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET TRANSACTION command (see page 120).

### ALl

is the default.

### CLass(*value*)

is the 2-character suffix of a transaction list table (XLT).

(value)

is a 1–4 character transaction identifier. Only transactions that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

## Examples

```
CEMT IN TRANSACTION
STATUS: RESULTS - OVERTYPE TO MODIFY
Trans(CATA) Pri( 255 ) Pro(DFHZATA ) Tc1( DFHTCL00 ) Ena Pur
Trans(CATD) Pri( 255 ) Pro(DFHZATD ) Tc1( DFHTCL00 ) Ena Pur
Trans(CATR) Pri( 255 ) Pro(DFHZATR ) Tc1( DFHTCL00 ) Ena Pur
Trans(CDTS) Pri( 255 ) Pro(DFHZATS ) Tc1( DFHTCL00 ) Ena Pur
Trans(CEBR) Pri( 001 ) Pro(DFHEDFBR) Tc1( DFHTCL00 ) Ena Pur
Trans(CECI) Pri( 001 ) Pro(DFHECIP ) Tc1( DFHTCL00 ) Ena Pur
Trans(CECS) Pri( 001 ) Pro(DFHECSP ) Tc1( DFHTCL00 ) Ena Pur
Trans(CEDA) Pri( 001 ) Pro(DFHEDAP ) Tc1( DFHTCL00 ) Ena Pur
Trans(CEDB) Pri( 001 ) Pro(DFHEDAP ) Tc1( DFHTCL00 ) Ena Pur
Trans(CEDC) Pri( 001 ) Pro(DFHEDAP ) Tc1( DFHTCL00 ) Ena Pur
+ Trans(CEDF) Pri( 001 ) Pro(DFHEDFP ) Tc1( DFHTCL00 ) Ena Pur
```

Figure 60. CEMT INQUIRE TRANSACTION screen

**Note:** The '+' symbol in the left-hand margin of the last item indicates that more transaction details will be shown if the PF8 key is pressed.

The full range of keywords associated with this command is always displayed if the request is made from the VSE console. For other terminals, because of the large number of keywords supported, only one line of information for each result is displayed. The full range of keywords usually requires 3 lines on a screen and is only displayed if you specifically select them by typing a ? in front of the chosen result. You get a display of all the keyword information in addition to the expanded SET syntax.

Only one ? is honored for each ENTER input.

```
IN TRA
SYNTAX OF SET COMMAND
Trans(CATA) Pri( 255 ) Pro(DFHZATA ) Tc1( DFHTCL00 ) Ena Pur
Prf(DFHICISV) Cda Any

CEMT Inquire TRAnSACTION()
< Class() | AL1 >
< Priority() >
< TClass() >
< Enabled | Disabled >
< PUrgeable | Notpurgeable >
```

Figure 61. CEMT INQUIRE TRANSACTION screen—extended inquiry

## Options

### ANY

The transaction accepts task-related data (TWA and EIB plus any internal control blocks) anywhere above or below the 16MB line.

### Below

Transaction requires any task-related data (TWA and EIB plus any internal control blocks) to be located below the 16MB line.

### CDatakey

CICS obtains storage for the transaction from CICS-key storage. Application programs that execute in CICS key have read-write access to this storage, but user-key programs have read-only access.

This includes the task life-time storage—the transaction work area (TWA) and the EXEC interface block (EIB)—and the storage that CICS obtains on behalf of programs that run under the transaction.

See the description of the TASKDATAKEY parameter on the RDO TRANSACTION resource definition in the *CICS Resource Definition Guide*.

### Disabled

The transaction is not available for use.

#### Notes:

1. If a transaction is disabled, this does not prevent a START command that names this transaction from being shipped to a remote region. When a task is attached for the requested transaction, CICS checks that the transaction is enabled in the remote region.
2. You can reset this value by overtyping it with a different value.

### Enabled

The transaction is available for use.

**Note:** You can reset this value by overtyping it with a different value.

### Notpurgeable

The transaction cannot be purged.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

### PRFile(value)

"name" is the name of the profile definition that defines additional options associated with this transaction.

### PRIority(value)

displays a value indicating the priority of a transaction relative to other transactions. When a transaction is running as a CICS task, the priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority.

**Note:** You can reset this value by overtyping it with a different value. The value is in the range 0–255, where 255 is the highest priority.

### PROgram(value)

displays an 8-character string identifying the name of the first program to be executed when this transaction is started.

### PUrgeable

The transaction is system-purgeable. This value relates to the SPURGE parameter on the TRANSACTION resource definition and indicates that CICS can purge the transaction in a deadlock time-out situation. See the

## CEMT INQUIRE TRDUMPCODE

*CICS Resource Definition Guide* for information about the SPURGE and DTIMEOUT parameters on an RDO TRANSACTION resource definition.

**Note:** You can reset this value by overtyping it with a different value.

### TClass(*value*)

displays an 8-character string identifying the name of the transaction class to which the transaction belongs. If the transaction does not belong to a class, DFHTCL00 is returned.

**Note:** You can reset this value by overtyping it with a different value.

To remove a transaction from its TCLASS, set this field to DFHTCL00. A series of blanks can be inserted, in which case DFHTCL00 is returned. An added or changed TCLASS **must** be one that has already been defined.

### TRprof(*value*)

displays the name of the transaction routing profile that defines additional options associated with this transaction if it is defined as a remote transaction.

### TRAnSACTION

indicates that this panel relates to a TRANSACTION inquiry, and displays a 4-character transaction identifier. Only transactions that have been defined in the CICS system definition (CSD) file and installed on the running CICS system, or defined by an EXEC CICS CREATE command are accessible through CEMT.

### Udatakey

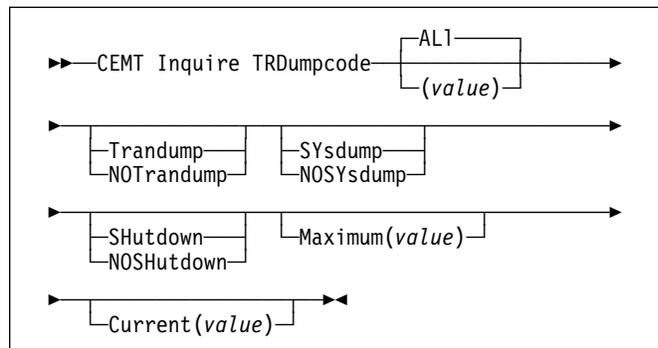
CICS obtains storage for the transaction from user-key storage. Application programs that execute in any key have read-write access to this storage.

This includes the task life-time storage—the transaction work area (TWA) and the EXEC interface block (EIB)—and the storage that CICS obtains on behalf of programs that run under the transaction.

See the description of the TASKDATAKEY parameter on the RDO TRANSACTION resource definition in the *CICS Resource Definition Guide*.

## CEMT INQUIRE TRDUMPCODE

Retrieve information about transaction dump codes.



### Context

The INQUIRE function allows you to see the current settings of the entries in the transaction dump table. See the *CICS Problem Determination Guide* for information on using dumps.

**Note:** SHUTDOWN and MAXIMUM must not be used in the same command.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TRDUMPCODE (the minimum abbreviation is CEMT I TRD). You get a display that lists the current status.
- Type CEMT INQUIRE TRDUMPCODE (CEMT I TRD) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cent i trd sy sh`, the resulting display will show you the details of only those transaction dump codes for which system dumps are to be taken and for which the CICS system is to shut down.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).
- Use the CEMT SET TRDUMPCODE command (see page 121).

### ALI

is the default.

(*value*)

is a 4-byte transaction dump code. See the *VSE/ESA Messages and Codes Volume 3* manual for information on transaction dump codes.

## Examples

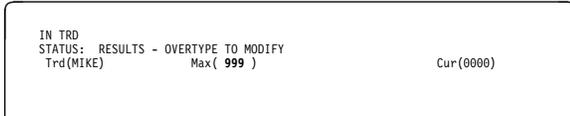


Figure 62. CEMT INQUIRE TRDUMPCODE screen

**Note:** The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

## Options

**Current**(*value*)

displays the number of system dump calls that have been made for this transaction dump code since the number was last reset to zero. The CURRENT value can be reset explicitly (using a SET SYDUMPCODE RESET command), or automatically whenever CICS shuts down.

**Maximum**(*value*)

displays the largest number of system dump calls for this dump code that result in dumps being taken. The value is in the range 0-999 and can be specified by using the TRDUMAX system initialization parameter. A value of 999 means the default, 'no limit'.

**NOSH**utdown

The CICS system is not to shut down after the occurrence of an error corresponding to this dump code.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

**NOSY**sdump

A system dump is not to be taken for this transaction dump code.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overwrite it with a different value.

**NOT**randump

A transaction dump is not to be taken.

**SH**utdown

The CICS system is to shut down after the occurrence of an error corresponding to this dump code.

**SY**sdump

A system dump is to be taken for this transaction dump code.

**Trandump**

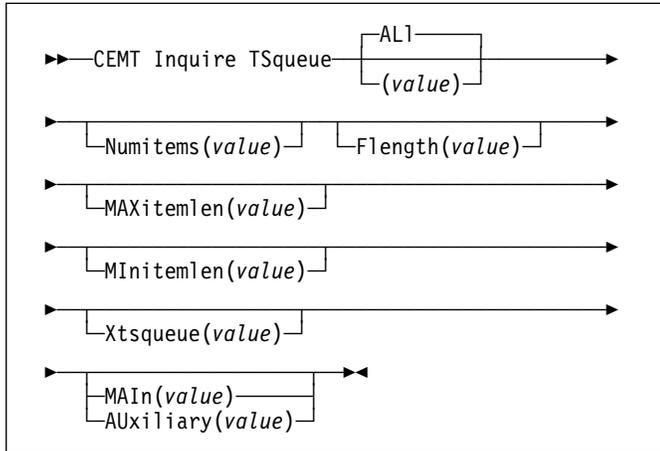
A transaction dump is to be taken.

**TRD**umpcode

indicates that this panel relates to a TRDUMPCODE inquiry, and displays a 4-character transaction dump code. See the *VSE/ESA Messages and Codes Volume 3* for details about CICS transaction dump codes.

## CEMT INQUIRE TSQUEUE

Retrieve information about temporary storage queues.



### Context

The INQUIRE TSQUEUE command returns information about temporary storage queues (TS queues). The INQUIRE TSQUEUE command operates on all the temporary storage queues that exist in the CICS region, including those created internally by CICS for use by CICS itself (for example, queues used by BMS). You can identify the temporary storage queues created by CICS for its own use by queue names that begin with the following character strings:

|                |   |
|----------------|---|
| **             | BMS paging                                |
| \$\$           | BMS route                                 |
| X'FA' to X'FF' | CICS                                      |
| X'FF'DTB       | Dynamic log overflow                      |
| CEBR           | Default CEBR queue name                   |
| DF             | CICS                                      |
| DFHM           | Message cache for message-protected tasks |
| DFxxxx         | CICS REQIDS (where x is hexadecimal)      |

### Notes:

- The actual length in bytes of temporary storage items is rounded up to include the item header and any extra storage used by the temporary storage control program, as follows:
  - 24 bytes of header information.
  - A number of bytes to round up the record size, as follows:
    - For auxiliary temporary storage, the item is rounded up to a multiple of 64 bytes or 128 bytes, depending on the CI size of the temporary storage data set. (For background information about CI sizes, see the *CICS System Definition Guide*.)

- For main temporary storage, the item is padded up to the storage subpool boundary (main temporary storage subpools are always in multiples of 64 bytes).

CICS uses these rounded lengths to return values for FLENGTH, MAXITEMLEN, and MINITEMLEN.

Example: If you create a main temporary storage queue with one item of 40 bytes, then the item occupies the following amount of storage:

```

4 bytes of header data in the form of an LLBB
length
20 bytes of descriptive header data
40 bytes of user data
-----
64 bytes total
-----
    
```

An INQUIRE TSQUEUE command on this item returns a length of 64 bytes.

However, if the length of the item is 41 bytes, the queue occupies 65 bytes plus the padding that storage manager adds to round up to a 64-byte boundary. In this case the INQUIRE TSQUEUE command returns the length as 128 bytes.

- If an auxiliary temporary storage queue contains an item that is larger than the control interval size of the temporary storage dataset, CICS returns a value of -1 as the length for FLENGTH, MAXITEMLEN, and MINITEMLEN.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT INQUIRE TSQUEUE (the minimum abbreviation is CEMT I TS). You get a display that lists the current status.
- Type CEMT INQUIRE TSQUEUE (CEMT I TS) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i ts l(main)`, the resulting display will show you the details of only those temporary storage queues that are resident in main storage.

No values can be changed on the INQUIRE TSQUEUE screen.

#### ALI

is the default.

#### (value)

is the 8-character name of the temporary storage queue for which information is requested.

## Examples

```
CEMT IN TSQUEUE
STATUS: RESULTS
Tsq(ABCD ) Num(00001) Fls(00000064) Ma1
Max(00064) Min(00064) Xts(C1D5C4E8840404040)
Tsq(. . . . .) Num(00003) Fls(00000192) Aux
Max(00064) Min(00064) Xts(01020304AABBCCDD)
```

Figure 63. CEMT INQUIRE TSQUEUE screen

## Options

### AUXiliary

The temporary storage queue is held on the CICS temporary storage VSAM data set, DFHTEMP.

### Flength(*value*)

displays the total length in bytes of all the items in the temporary storage queue. For information about how CICS calculates the length of items, see the notes preceding these command options.

### MAXitemlen(*value*)

displays the length in bytes of the largest item in the temporary storage queue. For information about how CICS calculates the length of items, see the notes preceding these command options.

### MAIn

The temporary storage queue is held in main storage.

### Minitemlen(*value*)

displays the length in bytes of the smallest item in the temporary storage queue. For information about how CICS calculates the length of items, see the notes preceding these command options.

### Numitems(*value*)

displays the number of items in the temporary storage queue.

### TSqueue

indicates that this panel relates to a TSQUEUE inquiry, and displays an 8-character name of a temporary storage queue.

### Xtsqueue(*value*)

displays the name of the temporary storage queue in hexadecimal representation.

## CEMT INQUIRE VTAM

Inquire on the state of the connection between CICS and VTAM.

▶▶—CEMT Inquire Vtam—◀◀

## Context

INQUIRE VTAM inquires on the state of the connection between CICS and VTAM, and also on the persistent session delay interval (PSDI).

## Description

Press the Clear key and type CEMT INQUIRE VTAM (the minimum abbreviation is CEMT I V). You will get a display screen, a sample of which is shown below.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEMT SET VTAM command (see page 122).

## Examples

```
IN VTAM
STATUS: RESULTS - OVERTYPE TO MODIFY
Vta Ope Psd( 000000 )
```

Figure 64. CEMT INQUIRE VTAM screen

## Options

### Closed

The connection between CICS and VTAM has terminated.

### Forceclose

The connection between CICS and VTAM is in the process of closing following an EXEC CICS SET VTAM FORCECLOSE or CEMT SET VTAM FORCECLOSE command.

**Note:** You can reset this value by overtyping it with a different value.

### Immclose

The connection between CICS and VTAM is in the process of closing following an EXEC CICS SET VTAM IMMCLOSE or CEMT SET VTAM IMMCLOSE command.

## CEMT PERFORM commands

### Open

There is a connection between CICS and VTAM.

### Psdinterval(*value*)

displays the persistent session delay interval, expressed in the form *hhmmss*. It specifies if and for how long sessions are held in recovery-pending state after CICS fails.

**Note:** You can reset this value by overtyping it with a different value. The permitted range is 000000 to 235959 inclusive.

**000000** If CICS fails, sessions are terminated.

**hhmmss** If CICS fails, sessions are held in recovery-pending state by VTAM for up to the interval specified.

CEMT issues new error messages associated with the use of CEMT to set the persistent session delay interval. These are:

| Message          | RESP/RESP2                |
|------------------|---------------------------|
| INVALID PSDINT   | RESP=INVREQ, RESP2=4      |
| NOT WITH XRF     | RESP=INVREQ, RESP2=8      |
| SETLOGON FAILURE | RESP=INVREQ, RESP2=9      |
| ACB CLOSED       | RESP=INVREQ, RESP2=12     |
| RECOVERY ERROR   | All other cases of INVREQ |

### Vtam

indicates that this panel relates to a VTAM inquiry.

---

## CEMT PERFORM commands

Descriptions follow of the CEMT PERFORM commands in alphabetic order. The operands for each of the commands are also presented in alphabetic order.

These commands are not concerned with resource status. They are used to:

- Cause the CICS timeout delete mechanism to be invoked immediately (PERFORM DELETSHIPED)
- Dump and continue processing (PERFORM DUMP or PERFORM SNAP)
- Reset the date and time of day (PERFORM RESET)
- Rebuild the ESM resource profile (PERFORM SECURITY)
- Shut down the CICS region (PERFORM SHUTDOWN)
- Request statistics to be recorded (PERFORM STATISTICS).

## CEMT PERFORM DELETSHIPED

Cause the CICS timeout delete mechanism to be invoked immediately.

```
▶▶—CEMT Perform DEletshipped—▶▶
```

### Context

The CICS timeout delete mechanism removes any shipped terminal definitions that have not been used for longer than the time specified on the DSHIPIDL system initialization parameter, or on a subsequent SET DELETSHIPED IDLE command. The interval between scheduled invocations of the mechanism is specified on the DSHIPINT system initialization parameter, or on a subsequent SET DELETSHIPED INTERVAL command.

PERFORM DELETSHIPED invokes timeout delete immediately.

#### Notes:

1. Shipped definitions are not deleted if there is an automatic initiate descriptor (AID) associated with the terminal.
2. Issuing a PERFORM DELETSHIPED command does **not** reset the start of the time interval until the next invocation of the timeout delete mechanism. In other words, causing the timeout delete mechanism to be invoked immediately does not affect the time remaining until the next scheduled invocation.

## CEMT PERFORM DUMP|SNAP

Obtain a CICS system dump

```
▶▶—CEMT Perform —DUmp —SNap —Title(value)—▶▶
```

### Context

To get a CICS system to dump and continue processing, you can use either the CEMT PERFORM DUMP command or the CEMT PERFORM SNAP command. Both commands produce a “snapshot” of the CICS system.

The use of CEMT PERFORM DUMP or CEMT PERFORM SNAP prevents all other tasks from running. Consequently, terminal operators may experience delays in response.

### Options

#### DUmp

specifies that a system dump is to be produced.

#### SNap

specifies that CICS is to issue the VSE SDUMP macro to produce an SDUMP (system dump) of the CICS region.

#### Title(*value*)

specifies a title of up to 32 characters; it is added at the beginning of the dump. If your title includes spaces, you must enclose the whole title within single quotation marks ( ' ').

---

## CEMT PERFORM RESET

Synchronize the CICS date and time-of-day with the system date and time-of-day.

This command should be executed following a change to the system date or to the time-of-day.

For example, when setting clocks forward or back an hour to adjust for Summer and Winter time, use this command to ensure that CICS immediately updates the correct local time.

CICS generally obtains and stores the local time at specific times of day only (for example, at start up, and midnight). Thus you should execute this command whenever you change the system date or time-of-day while CICS is running. Note that to obtain the time, CICS issues an VSE TIME macro. Whenever an application program issues an EXEC CICS ASKTIME command, CICS updates the EIBTIME field in the exec interface block, always with the local time. To ensure that your applications are receiving the correct time, use CEMT PERFORM RESET whenever you alter the VSE time.

▶▶—CEMT Perform Reset—▶▶

---

## CEMT PERFORM SECURITY

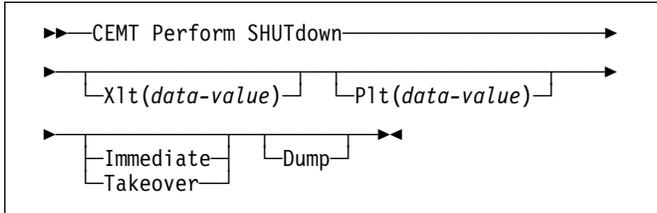
Rebuild the in-store ESM resource profiles. The ESM resource profiles are rebuilt by reissuing the RACLIST macro for the active class names.

▶▶—CEMT Perform SEcurity—Rebuild—▶▶

## CEMT PERFORM SHUTDOWN

For further information on XRF, see the *CICS XRF Guide*.

Shut down the CICS region. The shutdown can be either controlled or immediate.



### Options

#### Dump

A dynamic storage dump is produced upon completion of the termination process.

#### Immediate

specifies that the system is shut down immediately, terminating all active tasks and SNA sessions. If IMMEDIATE is not specified, all tasks are allowed to finish, and SNA sessions are allowed to terminate normally.

#### Plt(data-value)

specifies the 2-character suffix of a program list table (PLT) to be used for the shutdown.

#### Takeover

specifies that this CICS region should be closed down, and the alternate CICS region is to take over. This is valid only if the XRF=YES system initialization parameter was specified for CICS startup.

#### Xlt(data-value)

specifies the 2-character suffix of a transaction list table (XLT) to be used for the shutdown.

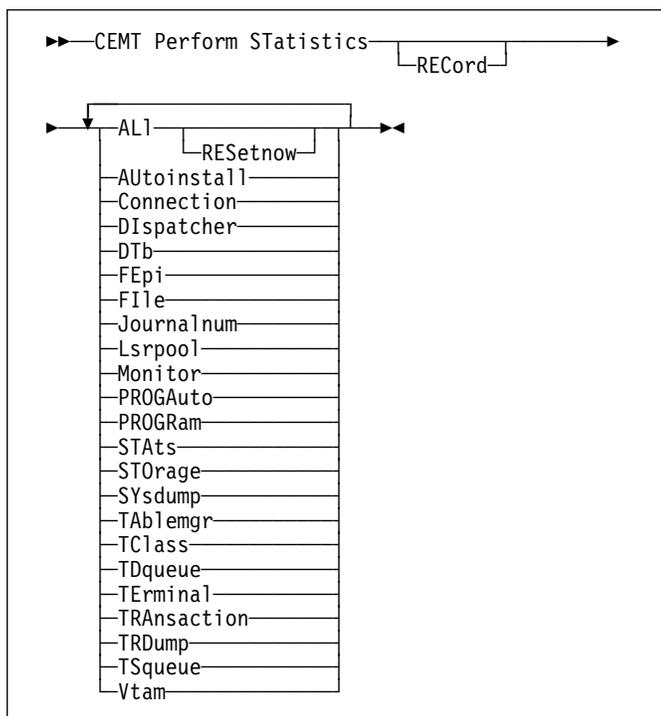
Transactions listed in the specified XLT can be initiated after the SHUTDOWN request, and before the system quiesces. The default XLT should contain an entry for the master terminal transaction. This ensures that you can issue an immediate shutdown if, for example, a task is found to be suspended after an ordinary (nonimmediate) shutdown has been requested.

Table 3 shows the effect of the TAKEOVER and IMMEDIATE options on the alternate CICS system.

| Table 3. Effect of the TAKEOVER and IMMEDIATE options on the alternate CICS system |                       |            |            |
|--|-----------------------|------------|------------|
|  | CEMT PERFORM SHUTDOWN |            |            |
|  | (normal)              | TAKEOVER   | IMMEDIATE  |
| CICS alternate   | shuts down            | takes over | takes over |

## CEMT PERFORM STATISTICS

Write the statistics for a named resource type immediately to the DMF data set, rather than wait for the current statistics-gathering interval to expire. The recording is made irrespective of the ON or OFF setting of statistics. See also page 66 and page 110 for a description of the CEMT INQUIRE and SET STATISTICS commands.



### Context

You can request either statistics for all resources (ALL), or statistics for individual resources in various combinations by selecting one or more keywords from the list.

The message 'STATS MISSING' appears when the resource type is either not functioning or not available. As much data is recorded as possible.

See the *CICS Operations and Utilities Guide* for information about printing statistics using the CICS-supplied utility program DFHSTUP, and for information about the reports produced by DFHSTUP.

### Options

#### ALL

Statistics for all resources are to be written immediately to the DMF data set.

ALL RESETNOW resets the counters for the collection of statistics. RESETNOW only works if the ALL operand is set, that is, ALL RESETNOW.

#### AUtoinstall

Autoinstall statistics are to be written immediately to the DMF data set.

#### ConNectiOn

Connection statistics are to be written immediately to the DMF data set.

#### DIspatCher

Dispatcher statistics are to be written immediately to the DMF data set.

#### DTb

Dynamic transaction backout statistics are to be written immediately to the DMF data set.

#### FEpi

FEPI statistics are to be written immediately to the DMF data set.

#### FIle

File control statistics are to be written immediately to the DMF data set.

#### Journalnum

Journal control statistics are to be written immediately to the DMF data set.

#### Lsrpool

LSRPOOL statistics are to be written immediately to the DMF data set.

#### MonItor

Monitoring statistics are to be written immediately to the DMF data set.

#### PROGAuto

Autoinstalled program statistics are to be written immediately to the DMF data set.

#### PROGRam

Program statistics are to be written immediately to the DMF data set.

#### STAts

Statistics domain statistics are to be written immediately to the DMF data set.

#### STOrage

Storage manager statistics are to be written immediately to the DMF data set.

#### SYsdump

System dump statistics are to be written immediately to the DMF data set.

#### TABlemgr

Table manager statistics are to be written immediately to the DMF data set.

#### TClaSS

Transaction class statistics are to be written immediately to the DMF data set.

**TD**queue

Transient data statistics are to be written immediately to the DMF data set.

**TE**rminal

Terminal statistics are to be written immediately to the DMF data set.

**TR**ansaction

Transaction statistics are to be written immediately to the DMF data set.

**TR**Dump

Transaction dump statistics are to be written immediately to the DMF data set.

**TS**queue

Temporary storage statistics are to be written immediately to the DMF data set.

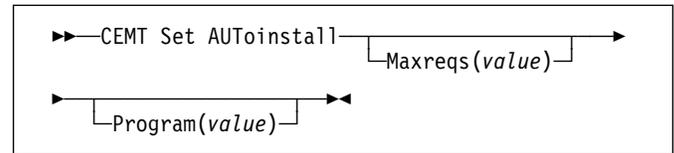
**V**tam

VTAM statistics are to be written immediately to the DMF data set.

---

## CEMT SET AUTOINSTALL

Change autoinstall values.



### Context

The CEMT SET AUTOINSTALL command allows you to change some of the values that control the automatic installation of terminals (autoinstall). For information about autoinstall, see the *CICS Resource Definition Guide*.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET AUTOINSTALL (the minimum abbreviation is CEMT S AUT). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE AUTOINSTALL. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET AUTOINSTALL (CEMT S AUT) followed by one or more attribute settings that you wish to change. For example, `cent s aut m(newvalue) p(newname)` will reset the values for maximum number of requests for a new program.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### Maxreqs(*value*)

specifies the largest number of autoinstall requests that are allowed to queue at one time, in the range 0–999.

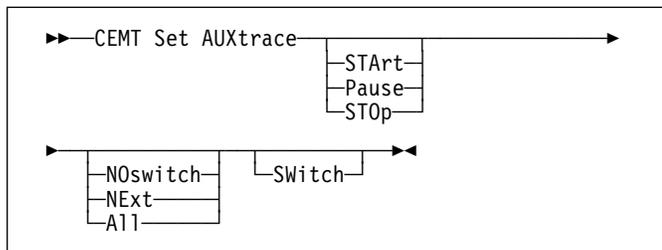
You can prevent more terminals from logging on through autoinstall by setting this value to 0. This allows autoinstalled entries for terminals currently logged on to be deleted by the autoinstall program when they log off.

#### Program(*value*)

specifies the name of the user program that is to control the autoinstall process. This can be either one of the CICS-supplied default autoinstall programs (DFHZATDX or DFHZATDY) or the VSE/ESA supplied program, IESZATDX, or a user-written program.

## CEMT SET AUXTRACE

Change auxiliary tracing options.



### Context

For more information about traces, see the *CICS Problem Determination Guide*. See also the description of the CETR transaction on page 143.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET AUXTRACE (the minimum abbreviation is CEMT S AUX). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE AUXTRACE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET AUXTRACE (CEMT S AUX) followed by one or more attribute settings that you wish to change. For example, `cemt s aux sto a` will stop auxiliary tracing and cause automatic switching to occur as necessary.

Typing ? at the beginning of any display gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### All

specifies that automatic switching between the two auxiliary trace data sets is to occur as necessary until the end of this CICS session, without the need for operator intervention.

#### NExt

Automatic switching of the auxiliary trace data set is to occur when the current trace data set is full, but not subsequently.

#### NOswitch

Switching between the auxiliary trace data sets is not to occur without operator intervention.

#### Pause

Auxiliary tracing is to stop, but the data set is to remain open. A subsequent START request causes trace

entries to be written immediately following those that were written before the PAUSE request.

#### STArt

CICS is to start auxiliary tracing and open the auxiliary trace data set if it is currently closed.

#### STOp

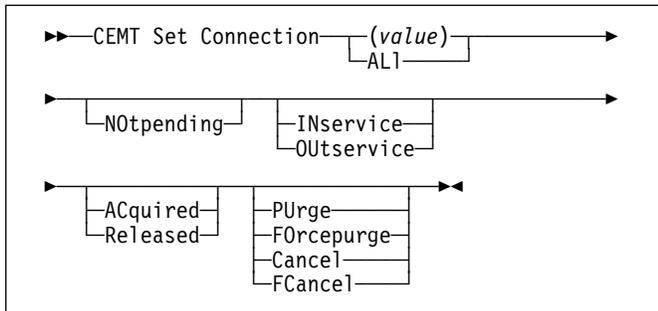
CICS is to stop auxiliary tracing and close the auxiliary trace data set. A subsequent START request causes new trace entries to be written at the start of the data set, thereby overwriting the trace entries that were written before the STOP request.

#### SWitch

specifies that an immediate switch from the current auxiliary trace data set is to be made to the alternate trace data set.

## CEMT SET CONNECTION

Change the status of connections linked to specific terminals.



### Context

When a connection has been defined as INDIRECT, no information is given unless the direct connection to which it refers is installed.

If you want to install a new connection definition when one is already installed, you must set the connection OUTSERVICE and, if it is VTAM-connected, release it before using the CEDA INSTALL commands for your new definition.

See the *CICS Resource Definition Guide* for further information about connections.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET CONNECTION (the minimum abbreviation is CEMT S C) followed by one or more connection identifiers or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE CONNECTION. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET CONNECTION (CEMT S C) followed by one or more connection identifiers or ALL, followed in turn by one or more attribute settings that you wish to change. For example, `cemt s c a l i` will reset the values for all connections to make them available for use (inservice).

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

(value)

One or more names (1–4 characters) defined for an interregion communication (IRC) or an intersystem communication (ISC) connection.

### ACquired

CICS is to acquire a session with the logical unit represented by the CONNECTION name. To get more detailed information about the availability status of the connection elements, use CEMT ACQUIRE MODENAME command. A connection cannot be both ACQUIRED and OUTSERVICE.

### ALI

Any changes you request are made to all resources of the specified type that you are authorized to access.

### Cancel

Automatic initiate descriptors (AIDs) queuing for the specified connection are to be canceled.

AIDs representing scheduled and allocated requests waiting in the local CICS system for the specified connection are canceled. However, TD AIDs with an associated triggered task already started will not be canceled. In addition, the following CICS system AIDs are not purged unless FCANCEL is specified.

Table 4. System AIDs requiring FCANCEL to remove them

| Description                             | Tranid |
|---|--------|
| Remote delete AIDs                      |        |
| Remote scheduler AIDs                   | CRSR   |
| LU6.2 service manager 1 AIDs            | CLS1   |
| LU6.2 service manager 2 AIDs            | CLS2   |
| LU6.2 service manager 3 AIDs            | CLS3   |
| Remote scheduler PURGE AIDs             | CRSQ   |
| Resource manager resynchronization AIDs | CRSY   |
| Autoinstalled terminal delete AIDs      | CATD   |
| Autoinstalled terminal restart AIDs     | CATR   |

When a canceled SCHEDULE request is found to have a precursor in a remote CICS system, that is, the AID was originally scheduled in a remote system, the remote AID is canceled asynchronously.

Message DFHTF0100 is written to CSMT to indicate how many AIDs have been deleted for the connection and how many remain.

An 'AIDS CANCELED' message appears on the CEMT panel whenever AIDs are deleted using the CANCEL option of the CEMT SET CONNECTION command.

### FCancel

All AIDs, including system AIDs, queuing for the specified connection are to be canceled. See Table 4 for a list of those system AIDs that require FCANCEL to remove them. This can lead to unpredictable results and should be used only in exceptional circumstances.

**Note:** FCANCEL does not remove transient data AIDs with an associated triggered task. These aids may be removed by purging the associated task.

## CEMT SET CONNECTION

An 'AIDS CANCELED' message appears on the CEMT panel whenever AIDs are deleted using the FCANCEL option of the CEMT SET CONNECTION command.

### FORCEPURGE (VTAM only)

All transactions running on sessions on the connected system are immediately terminated abnormally. This can lead to unpredictable results and should be used only in exceptional circumstances.

In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

FORCEPURGE replaces PURGE FORCE which is retained only for compatibility purposes. You should use FORCEPURGE in new applications.

### INSERVICE

The system is in service; that is, it is available for use.

For an interregion communication (IRC) system (that is, links to system ("sysid") are through IRC), all IRC sessions owned by the system are placed in service and the following occurs:

- If both the issuing system and system "sysid" have IRC open, and the issuing system has status INSERVICE within system "sysid", connections are established and made available between the two systems.
- Otherwise, the status of the system (and the status of the underlying sessions) is set INSERVICE, so that when both systems have IRC open and are INSERVICE with respect to each other, connections are established. Note that INQUIRE indicates that systems (and their underlying sessions) are INSERVICE even though no connections can be used.
- The status of the underlying sessions for a system is always the same as that for the system itself.

For an ISC system, the following occurs:

- LU6.1 system (that is, links to "sysid" are through intersystem communication)—all underlying sessions are placed in service.
- APPC system—causes the SNASVCMG sessions to be placed in service thereby enabling the connection subsequently to be established.

### NOTPENDING (APPC only)

Specifying this command performs two functions:

1. The local system erases its memory of the remote system's log name. This means that the local system sends a COLD exchange log names (XLN) GDS variable.
2. Units of work (UOW) that require resynchronization with the remote system are erased and any suspended recoverable changes associated with those UOWs are unilaterally committed. CICS does

not perform any resynchronization with the remote system when the connection is reacquired.

The command can be issued only if exchange log names processing has not been completed successfully. The exchange log names and resynchronization functions are described in the *CICS Intercommunication Guide* and the *Systems Network Architecture—LU6.2 Reference: Peer Protocols* manual.

### OUTSERVICE

The system is out of service; that is, it is not available for use.

For an IRC system, the following applies:

- If the issuing system and "sysid" are currently connected, those connections are broken (quiesce). The connections cannot be reestablished until an INSERVICE request is issued for "sysid".
- If the systems are not currently connected, connections are not allowed until an INSERVICE request is issued for "sysid".
- The status of the underlying sessions for a given system is always the same as that for the system itself.

For an ISC system, the following occurs:

- LU6.1 system—all underlying sessions owned by the system are released and placed out of service: immediately if PURGE or FORCEPURGE is specified; or when tasks have terminated if neither PURGE nor FORCEPURGE is specified.

If the response to an INQUIRE CONNECTION command shows OUTSERVICE, it does not imply that the connection has been explicitly set as SET OUTSERVICE; in particular circumstances, you cannot reinstall this connection.

- APPC system—this option is valid only if the system is released. All sessions owned by the ISC system are then out of service and released.

### PURGE (VTAM only)

Transactions running on the connected system are abnormally terminated. Transactions are terminated only if system and data integrity can be maintained. A transaction is not purged if its definition specifies SPURGE=NO.

### Released

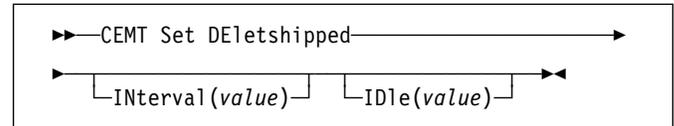
CICS is to release a session with the logical unit represented by the CONNECTION name. To get more information about the availability status of the connection elements, use the CEMT INQUIRE MODENAME command.

## CEMT SET DATASET

Replaced by CEMT SET FILE (see “CEMT SET FILE” on page 99). DATASET is still accepted, except for command-line SET commands.

## CEMT SET DELETSHIPED

Change system settings that control the CICS timeout delete mechanism.



The CICS timeout delete mechanism is invoked at user-specified intervals to remove any shipped terminal definitions that have not been used for longer than a user-specified time.

SET DELETSHIPED allows you to change the values that control the mechanism.

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DELETSHIPED (the minimum abbreviation is CEMT S DE). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DELETSHIPED. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET DELETSHIPED (CEMT S DE), followed by one or more attributes that you wish to change. For example, `cemt s de id1(0150000)` specifies that shipped terminal definitions are to remain installed for at least fifteen hours after they become inactive.

Typing ? at the beginning of any display line gives a syntax prompt.

### Options

#### IDle(*value*)

specifies, in the form “**Ohhmmss+**”, the minimum time that an *inactive* shipped terminal definition must remain installed in this region. When the CICS timeout delete mechanism is invoked, only those shipped definitions that have been inactive for longer than this time are deleted.

The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds.

At CICS startup, the interval is set to the value specified on the DSHIPIDL system initialization parameter.

#### INterval(*value*)

specifies, in the form “**Ohhmmss+**”, the interval between invocations of the CICS timeout delete mechanism. The timeout delete mechanism removes any shipped terminal definitions that have not been used for longer than the time specified by the IDLE option.

## CEMT SET DSAS

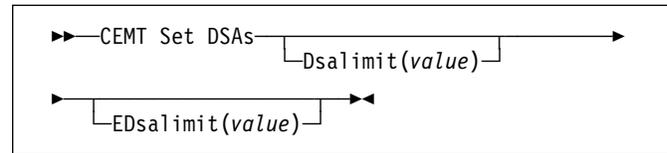
The time interval can be in the range 00–99 hours; 00–59 minutes; and 00–59 seconds. If you specify 0, the timeout delete mechanism is not invoked.

At CICS startup, the interval is set to the value specified on the DSHIPINT system initialization parameter. By resetting the interval, you can change the time of day at which a mass delete operation takes place.

**Note:** The revised interval starts from *the time the command is issued*, **not** from the time the timeout delete mechanism was last invoked, nor from the time of CICS startup.

## CEMT SET DSAS

Change the system storage attributes.



Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DSAS (the minimum abbreviation is CEMT S DSA). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DSAS. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET DSAS (CEMT S DSA) followed by one or more attribute settings that you wish to change. For example, `cemt s dsa ds(value) ed(value)` will reset the values for dynamic storage below the 16MB boundary and above the 16MB boundary.

Typing ? at the beginning of the first line gives a syntax prompt. Resetting the values takes effect immediately.

## Options

### Dsalimit(value)

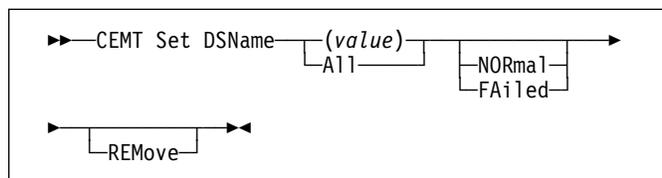
specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS System Definition Guide* for a description of the DSALIM system initialization parameter.) If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

### EDsalimit(value)

specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside above the 16MB boundary. (See the *CICS System Definition Guide* for a description of the EDSALIM system initialization parameter.) If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs.

## CEMT SET DSNAME

Change the attributes of an external VSAM data set.



### Context

With the SET DSNAME command, you can change the backout status of a VSAM base data set, and tell CICS that a data set is no longer required on the local system. The main purpose of this command is to reset the backout status of a VSAM base cluster after running a batch backout utility.

For SET DSNAME to have any effect, the data set must have been opened during the current CICS session.

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DSNAME (the minimum abbreviation is CEMT S DSN) with either a value corresponding to a data set name or 'ALL'. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DSNAME. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET DSNAME (CEMT S DSN) with either a dataset\_name or 'ALL', followed by one or more attribute settings that you wish to change. For example, `cemt s dsn a nor rem` will reset all data sets to normal backout and remove all data sets from the system.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### (value)

specifies one or more names (1–44 characters) of an external data set.

**All** If you specify the ALL operand on a SET command, any change you request is made to all resources of the specified type that you are authorized to access.

#### FAiled

Backout of the data set has failed.

#### NORmal

All backouts have been successful, or backout has not been necessary. Data sets that are currently in the process of failing backout are also displayed as NORMAL.

### REMOve

This option is used when a data set is no longer required on the local system. It deletes the data set name block for the named data set. The REMOVE option can be used only when there are no file control table (FCT) entries that refer to the data set name. If any FCT entries refer to the data set name when you enter SET DSNAME REMOVE, you receive an error message indicating that the use count of the data set name block is not zero. To ensure that no FCT entries refer to the data set name:

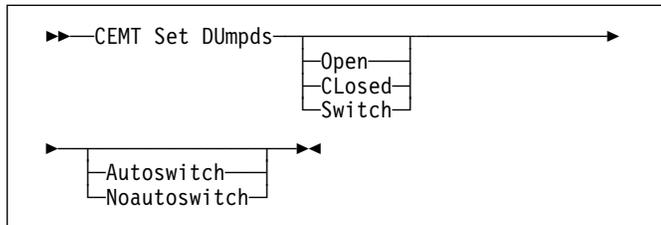
- Close all files that refer to the data set. These files can be found using the command:
 

```
CEMT INQUIRE FILE(*) DSNAME(dsname)
```
- Remove the data set name from each FCT entry by over-typing the data set name with blanks on the CEMT display.

If you have a base data set with one or more alternative indexes, you are unable to remove the data set name block for the base until you have removed all references to the base data set and all references to paths.

## CEMT SET DUMPDS

Change the attributes of a CICS transaction dump data set.



### Switch

The currently active dump data set is to become inactive, and the currently inactive data set is to become active.

## Context

Using SET DUMPDS, you can open or close the active CICS dump data set, and specify whether or not the automatic switch to the inactive dump data set occurs when the active dump data set is full.

For more information about dumps, see the *CICS Problem Determination Guide*.

## Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET DUMPDS (the minimum abbreviation is CEMT S DU). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE DUMPDS. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET DUMPDS (CEMT S DU) followed by one or more attribute settings that you wish to change. For example, `cemt s du o a` will open the active dump data set and cause autoswitch to occur only when the active dump data set is full.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

## Options

### Autoswitch

The switch occurs **only** when the active dump data set is full, but not subsequently.

### CLosed

The active CICS dump data set is closed.

### Noautoswitch

When the active dump data set is full, there is not to be an automatic switch to the inactive dump data set.

### Open

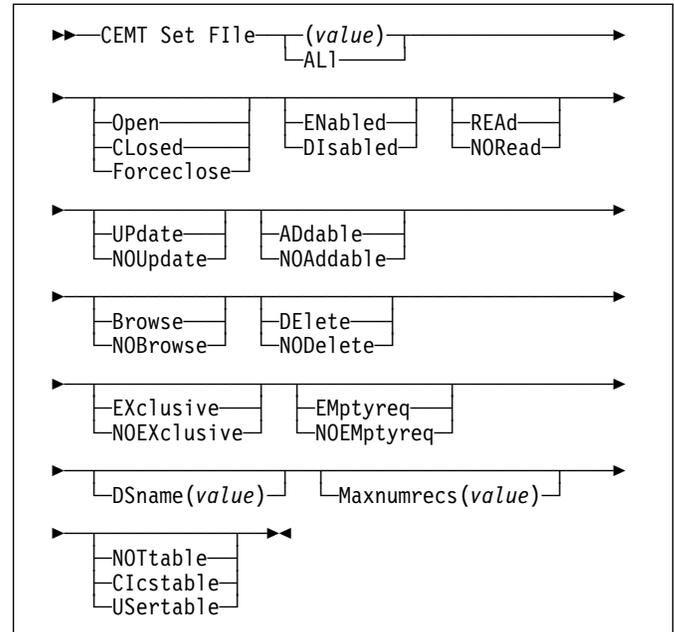
The active CICS dump data set is opened.

## CEMT SET FEPI

For information on CEMT SET FECONNECTION, CEMT SET FEPOOL, CEMT SET FENODE, CEMT SET FEPROPSET, and CEMT SET FETARGET, see the *CICS Front End Programming Interface User's Guide*.

## CEMT SET FILE

Change some of the attributes of one or more VSAM or DAM files.



Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET FILE (the minimum abbreviation is CEMT S FI) with either a value corresponding to a file name or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE FILE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET FILE (CEMT S FI) with either the name of a file or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s fi al ex` will set all files open and protect the records on those files from simultaneous update (exclusive).

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### (value)

One or more names (1–7 characters) defined in the file control table (FCT).

#### ADdable

You can add records to the file.

#### ALI

Any change you request is made to all files that you are authorized to access.

## CEMT SET FILE

### Browse

You can browse records in the file.

### CIcstable

The file name represents a CICS-maintained data table.

### CLosed

The file is closed; the access method does not allow accesses to the data until the file is opened. The file can be opened either explicitly by the user or, if the file has the ENABLED attribute, implicitly by CICS on the next reference to the file.

When the SET FILE CLOSED command is used, the file is closed and also disabled. (The file is disabled to prevent access requests from implicitly opening the file again.) The close is effected at the time of the command only if there are no tasks currently accessing the file. If there are current users, the display indicates CLOSE requested. This means that, when the last user finishes using the file, it effects the close.

A file that has been disabled by a SET FILE CLOSED command becomes enabled again by a subsequent SET FILE OPEN command. To distinguish a file that has been disabled by a SET FILE CLOSED from one that has been disabled by a SET FILE DISABLED command, the SET FILE CLOSED command closes the file with the UNENABLED attribute.

A file with the DISABLED attribute can be enabled only by a SET FILE ENABLED command. A file with the UNENABLED attribute can be enabled by a SET FILE ENABLED or SET FILE OPEN command.

### DElete

You can delete records from the file.

### Disabled

The file is not available for use by transactions except for those that are currently using it. If there are any such users, 'BEING DISABLED' is also displayed. The CEMT SET FILE DISABLED command has no effect on existing users; it simply prevents new users from accessing the file.

The file can be reenabled by a SET FILE ENABLED command. (See also UNENABLED.)

It is not possible to disable a remote file.

### DSname(*value*)

specifies the name of the VSAM data set with which this file is associated. The name is composed of 1 to 44 characters, valid characters are A-Z, 0-9, @, #, \$, ., and -. Names consisting of more than eight characters must be segmented by periods; 1-8 characters may be specified between periods. The first character of any name or name-segment must be chosen from A-Z, @, #, and \$. The last character of a name cannot be a period, and the name may not contain two consecutive periods.

CEMT SET FILE(*value*) DSNAME(*value*) associates the data set with the file and causes the FILECOUNT of the data set to be incremented by 1. You can use CEMT

SET FILE DSNAME with a null DSNAME value to dissociate a file from its current data set.

### EMptyreq

Applies only to a VSAM file that has been defined to VSAM as a cluster with the REUSE parameter. It indicates that when a file is next opened, its data is erased.

A CEMT SET FILE EMPTYREQ command can be applied only to files that are closed and either disabled or unenabled, and has no effect on the data until the file is opened. A SET FILE EMPTYREQ command can be canceled by a SET FILE NOEMPTYREQ command.

### ENabled

The file is available for use by transactions and, if closed, it is opened on the first request. If the command CEMT SET FILE(*value*) CLOSED ENABLED is given while the file is in use, the status of the file becomes 'closed-unenabled'. If the command CEMT SET FILE(*value*) CLOSED is given while the file is in use, the file is disabled to prevent new users accessing the file.

### EXclusive

Records on the file are protected from simultaneous update.

### Forclose

Similar to SET FILE CLOSED, except that any existing users of the file are abended (abend code 'AKC3' or 'ATCH'). As for CLOSED, the close is effected by the last of these users.

#### Data integrity

Closing a file using the FORCECLOSE option causes tasks of any current users of the file to be terminated immediately by the CICS task FORCEPURGE mechanism. Data integrity is not guaranteed with this mechanism. In some extreme cases (for example, if an error occurs during backout processing) CICS might terminate abnormally. For this reason, closing files using the FORCECLOSE option should be restricted to exceptional circumstances.

### Maxnumrecs(*value*)

specifies the maximum number of records that the data table for this file can hold. The value can be in the range 16 through 16777215 (16 to 16MB-1).

### NOAddable

You cannot add records to the file.

### NOBrowse

You cannot browse records in the file.

### NODElete

You cannot delete records from the file.

### NOEXclusive

Records on the file are not protected from simultaneous update.

**NOEM**ptyreq

Applies only to VSAM files. It indicates that when a file is next opened, its data is not erased.

A CEMT SET FILE NOEMPTYREQ command can be applied only to files that are closed and either disabled or unenabled, and cancels the implicit request in a previous SET FILE EMPTYREQ command.

**NOR**ead

You cannot read records in the file.

**NOT**able

The file name does not represent a data table.

**NOU**ppdate

You cannot update records in the file.

**O**pen

The file is open. If the file is OPEN ENABLED, it is available for data accesses by CICS transactions. If it is OPEN DISABLED, it must first be enabled before it is available.

If the file was unenabled by a previous SET FILE CLOSED command, the SET FILE OPEN command reenables the file implicitly.

**REA**d

You can read records in the file.

**UP**ppdate

You can update records in the file.

**US**ertable

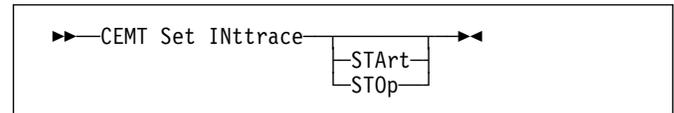
The file name represents a user-maintained data table.

**CEMT SET INTRTRACE**

Switch CICS internal tracing on or off.

SET INTRTRACE allows you to switch CICS internal tracing on and off.

This command is intended for use at terminals that do not support the full-screen tracing transaction CETR.

**Description**

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET INTRTRACE (the minimum abbreviation is CEMT S IN). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE INTRTRACE. You can then tab to the highlighted field and overwrite it with the required value.
- Type CEMT SET INTRTRACE (CEMT S IN) followed by the attribute setting that you wish to change. For example, cemt s in sta will cause CICS internal tracing to be started.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

**Options****STAr**t

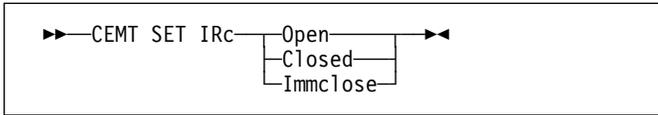
CICS internal tracing is started.

**STOp**

CICS internal tracing is stopped.

## CEMT SET IRC

Open or close the interregion communication (IRC) facility.



## Context

New MRO connections can be installed without first closing IRC. However, if you want to modify existing MRO connections, IRC must be closed using the SET IRC CLOSED command. For example:

```

CEMT SET IRC CLOSED
CEDA INSTALL GROUP(groupname)
CEMT SET IRC OPEN
  
```

## Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET IRC (the minimum abbreviation is CEMT S IR). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE IRC. You can then tab to the highlighted field and overwrite it with the required value.
- Type CEMT SET IRC (CEMT S IR) followed by the attribute setting that you wish to change. For example, `cemt s ir o` will cause interregion communication to be initialized.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

## Options

### Closed

Interregion communication for this CICS system is to be terminated after all tasks using IRC sessions have terminated normally.

### Immclose

All tasks using IRC sessions are to be abended when they next try to use the session. Interregion communication is terminated when all tasks that were using IRC have been abended or have terminated normally.

### Open

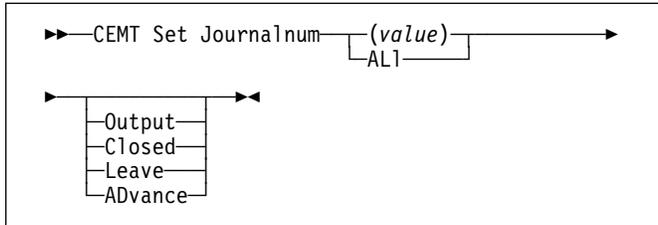
Interregion communication for this CICS system is to be initialized. This allows connections to be established between this system and other systems, including non-CICS client programs using the external CICS interface (EXCI). You can control the availability of

individual connections with the INSERVICE|OUTSERVICE settings on the connection names.

The DFHIR3780 message and CICS interregion communication program (IRP) return and reason codes are displayed if IRC fails to open. For a description of DFHIR3780, see the *VSE/ESA Messages and Codes Volume 3* manual.

## CEMT SET JOURNALNUM

Change the status of CICS journals.



### Context

The SET JOURNALNUM command allows you to open or close a journal, and to modify the method of collecting data.

You cannot specify a list of identifiers, nor can you use the symbols \* and + to specify a family of journals.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET JOURNALNUM (the minimum abbreviation is CEMT S J) with either a journal number or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE JOURNALNUM. You can then tab to the highlighted field and overwrite it with the required value.
- Type CEMT SET JOURNALNUM (CEMT S J) with either a journal number or ALL, followed by the attribute setting that you wish to change. For example, `cent s j all c` will close all journals.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### (value)

specifies the number (1-99) of the journal. The system journal is number 1.

#### ADvance

The volumes are to be switched.

#### ALL

Any changes you request are made to all resources of the specified type that you are authorized to access.

#### Closed

The specified journal is to be closed (without acquiring exclusive control) and, for tape journals, the volume is rewound.

**Note:** Do not set the CICS system journal (01) closed. If the journal used by the system to write log information is not open, any task issuing a journal request will abend. In addition, during any backout operation, CICS will not be able to write to the log and will itself abend. Use the ADVANCE option rather than the CLOSED option to switch the extent used for the system log.

#### Leave (tape journals only)

The specified journal is to be closed, but the volume is not to be rewound. The journal cannot be opened again until the volume is rewound.

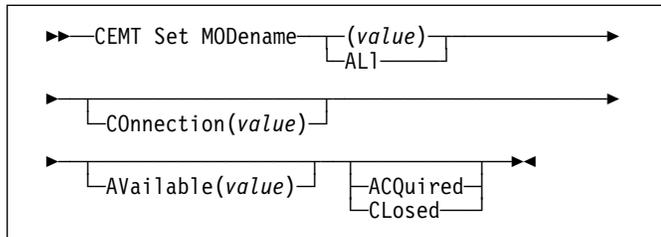
#### Output

The journal is to be opened for output and can be written to by any task authorized to do so.

## CEMT SET MODENAME

### CEMT SET MODENAME

Change the status of a mode name.



### Context

The SET MODENAME command is used to reset the connection to a remote system or to another CICS region, change the number of sessions available, and acquire or close the sessions associated with the mode name.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET MODENAME (the minimum abbreviation is CEMT S MOD) with either a modename or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE MODENAME. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET MODENAME (CEMT S MOD) with either a modename or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s mod(modename) acq` will cause CICS to acquire all the negotiated contention-winner sessions within the group named by modename.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

**(value)**

specifies one or more names (1–8 characters) of a group of sessions. Mode names need not be unique. You cannot specify a list of names, but you can use the symbols \* and + to specify a family of mode names.

A mode name consisting of eight blanks is valid. To specify this name, enclose the string of blanks within single quotation marks:

```
MODENAME('      ')
```

**ACQuired**

CICS is to acquire (or “bind”) all the negotiated contention-winner sessions within the group.

**ALI**

specifies that any changes you request are done to all resources of the specified type that you are authorized to access.

**AVailable(value)**

specifies the maximum number of sessions within the group that can be concurrently allocated for use. This value has to be the same for both sides involved in the session.

**CLosed**

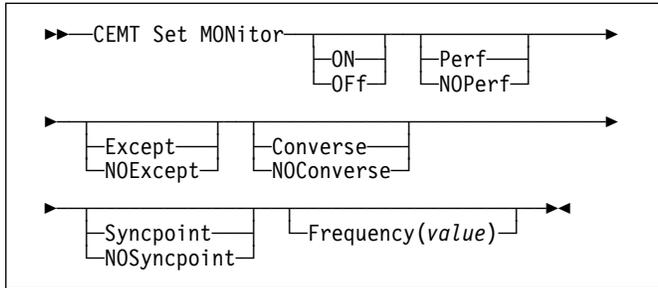
CICS is to release all sessions within the group. The sessions are quiesced and unbound. No further sessions can be acquired by another CICS system. No further activity is possible on the sessions within the group until the group is reacquired by the same CICS system in which it has been closed.

**COnection(value)**

specifies an identifier (1–4 characters) defined for an IRC or ISC connection.

## CEMT SET MONITOR

Change the status of monitoring.



### Context

SET MONITOR allows you to select the classes of monitoring data you want collected, switch monitoring on or off, and set the status of monitoring options. For programming information on the monitoring classes, see the *CICS Customization Guide*.

#### Notes:

1. When you change the status of CICS monitoring from OFF to ON, CICS starts to accumulate monitoring data, and to write monitoring records for the active monitoring classes, for all tasks that start **after** the change is made. The monitoring status of tasks being processed is not affected.
2. When you change the status of CICS monitoring from ON to OFF, CICS stops writing monitoring data immediately. No monitoring data is accumulated for tasks that start after the change is made.
3. The monitoring class settings can be changed irrespective of whether monitoring is ON or OFF.

If monitoring is OFF, you can change the class settings as required in preparation for the next time STATUS is set to ON.

If monitoring is ON, changes to the class settings have the following effects:

- a. Changing a class from not-active to active has no effect on the data written for running tasks.
- b. Changing a class from active to not-active prevents monitoring data for that class being written for running tasks as follows:

#### EXCEPTION

Monitoring data is not written at the completion of the exception condition.

#### PERFORMANCE

Any performance class data remaining in the output buffer is recorded, and no further data is collected.

- c. Exception class and performance class data are gathered during the life of a running transaction. When you change these settings, you should be aware of their impact on transactions that are running. For example, if a transaction is started when the performance class is set to PERF and monitoring is ON, performance class data is accumulated for that transaction. If you switch the performance class to NOPERF while the transaction is running, and then back to PERF before the transaction ends, performance data will be missing from the final monitoring data for that transaction, even though, when it started and when it ended, the performance class was set to PERF.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET MONITOR (the minimum abbreviation is CEMT S MON). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE MONITOR. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET MONITOR (CEMT S MON) followed by one or more attribute settings that you wish to change. For example, `cemt s mon on p ex` will set CICS monitoring ON and collect performance-class and exception-class data.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### Converse

Conversational tasks are to have separate performance class records produced for each pair of terminal control I/O requests (CONVERSE or SEND/RECEIVE pair).

#### Except

The exception class of monitoring data is to be collected.

#### Frequency(value)

specifies the interval for which monitoring produces automatically a transaction performance class record for any long-running transaction that has been in the system for a greater time than the interval. Frequency times are 0, or in the range 001500–024000. The default frequency value is 0, which means that FREQUENCY monitoring is inactive (that is, no performance class records are produced for long-running transactions).

#### NOConverse

Conversational tasks are not to have separate performance class records produced for each pair of terminal control I/O requests (converse or SEND/RECEIVE pair).

## CEMT SET NETNAME

### NOExcept

The exception class of monitoring data is not to be collected.

### NOPerf

The performance class of monitoring data is not to be collected.

### NOSyncpoint

A transaction performance class record is not to be produced when a transaction takes an explicit or implicit syncpoint (unit of work), except when the syncpoint is part of task termination or a syncpoint rollback.

### OFF

CICS monitoring is to be switched off. When monitoring is OFF, no monitoring data is accumulated or collected, irrespective of the settings of the monitoring data classes.

### ON

CICS monitoring is to be switched on. When monitoring is ON, monitoring data is accumulated continuously, and is collected (written out to a DMF data set) for each of the classes of monitoring data that are active.

### Perf

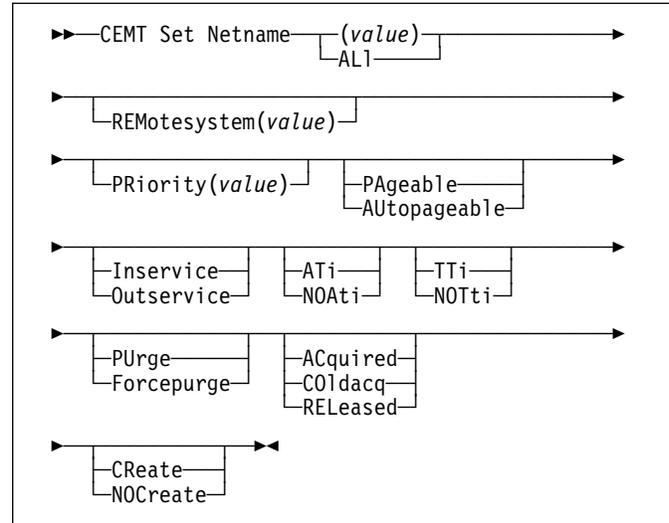
The performance class of monitoring data is to be collected.

### Syncpoint

A transaction performance class record is to be produced when a transaction takes an explicit or implicit syncpoint (unit of work), except when the syncpoint is part of task termination or a syncpoint rollback.

## CEMT SET NETNAME

Change the status of networks.



## Context

If you are familiar with network names, you may prefer to use this command as an alternative to CEMT SET TERMINAL (described under “CEMT SET TERMINAL” on page 118). However, CEMT SET NETNAME cannot be used for APPC sessions.

“netname” is the name by which the remote system or terminal is known to the network. The remaining operands for NETNAME are identical to those for TERMINAL.

Netnames need not be unique, and you cannot specify a list of names.

## Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET NETNAME (the minimum abbreviation is CEMT S N) with netname or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE NETNAME. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET NETNAME (CEMT S N) with netname or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s n(netname) i at` will reset the named remote system or terminal to inservice and available for use.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

## Options

### (value)

specifies the name by which the remote terminal is known in the network.

### ACquired

CICS is in session with the logical unit represented by the terminal.

### ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

### ATi

The terminal is available for use by transactions that are initiated automatically from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

### AUtopageable

Pages after the first in a series are to be written to the terminal automatically.

### COldacq

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

### CReate

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request. This cannot be specified for ATI sessions.

### Forcepurge

All transactions running with this terminal are immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

### Inservice

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

### NOAti

The terminal is not available for use by transactions that are initiated automatically from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

**Note:** A terminal cannot be defined with both NOATI and NOTTI.

### NOCreate

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

### NOTti

This terminal cannot be used by transactions that are initiated from this terminal.

**Note:** A terminal cannot be defined with both NOATI and NOTTI.

### Outservice

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

To set an IRC session OUTSERVICE, you must set the connection to the MRO partner OUTSERVICE.

### PAgeable

Pages after the first in a series are to be written to the terminal only if you request them to be.

### PRiority(value) (VTAM only)

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

### PUrge

Tasks running on this terminal are abnormally terminated, but task termination occurs only if system integrity can be maintained.

### RELeased

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

### REMOtesystem(value)

specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals

## CEMT SET PROGRAM

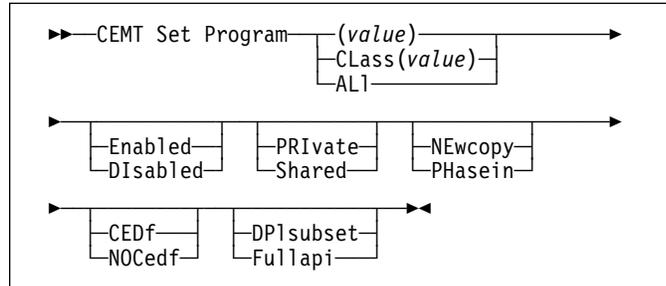
referred to by the request to those ISC or IRC sessions connected to the specified system.

### TTi

This terminal can be used by transactions that are initiated from this terminal.

## CEMT SET PROGRAM

Change the attributes of installed programs.



### Context

Only programs that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET PROGRAM (the minimum abbreviation is CEMT S P) with a program name, CLASS(*value*), or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE PROGRAM. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET PROGRAM (CEMT S P) followed by one or more attribute settings that you wish to change. For example, cemt s p(pgrmid) e ne will reset the values for the named program to make it available for use (enabled) and a new copy of the program will be used when all the transactions currently using the program have finished (newcopy).

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### (*value*)

specifies a program identifier (1–8 characters), which is the name of a specific program entry in the table of installed program definitions. If you omit the program name, the ALL option is assumed by default.

You cannot specify the CLASS option and a program name.

#### ALI

specifies that any changes you request are to be made to all resources of the specified type that you are authorized to access.

**CEDf**

When EDF is active, CEDF initiation and termination screens are to be shown by CEDF while this program is running. Other screens are also to be shown unless the program was translated using the NOEDF translator option.

**CLass**(*value*)

specifies the 2-character suffix of a program list table (PLT). Use this option to inquire on those programs defined in the specified PLT. Note that, unlike a shutdown PLT, it is not mandatory to define a program definition for a startup PLT. However, if you want to use the CLASS option, you must define and install a program resource definition for the PLT specified by "clasid".

If the clasid specified is the suffix of a PLT that does not have a program definition, the INQUIRE PROGRAM CLASS(clasid) command returns a 'CLASS NOT FOUND' message.

You cannot specify CLASS and a program name.

**Disabled**

The program is not available for use. Programs beginning with "DFH" cannot be disabled because these characters are reserved for use by CICS.

**DPLsubset**

The program is restricted to the DPL API subset, as for a distributed program link request, when it runs in the local CICS region.

A program is always restricted to the DPL subset when it is invoked in a remote region via a DPL request, regardless of this option.

**Enabled**

The program is available for use.

**Fullapi**

The program is not restricted to the DPL subset of the CICS API when it runs in the local CICS region, and can use the full API.

A program is always restricted to the DPL subset when it is invoked in a remote region via a DPL request, regardless of this option.

**NEWcopy**

CICS is to use a new copy of the program when all the transactions currently using the program have finished (RESCOUNT equal to zero). CICS loads the new version from a sublibrary of the LIBDEF search chain for the CICS job or uses an SVA-resident version, depending on the PRIVATE or SHARED options.

**Note:** NEWCOPY cannot be specified for a program specified with the HOLD option.

**NOcedf**

All CEDF activities, including initiation and termination screens, are to stop while this program is being processed.

**PHasein**

CICS is to use a new copy of the program now for all new transaction requests. CICS continues to use the old copy for all currently running transactions until they have finished (RESCOUNT equal to zero). CICS loads the new version from a sublibrary of the LIBDEF search chain for the CICS job or uses an SVA-resident version, depending on the PRIVATE or SHARED options.

**Note:** PHASEIN cannot be specified for a program specified with the HOLD option.

PHASEIN performs a REFRESH PROGRAM function to inform the loader domain that a new version of the program has been cataloged and that this version of the named program should be used in all future ACQUIRE requests.

Until the program goes to a zero RESCOUNT and a subsequent ACQUIRE PROGRAM has been performed, CEMT INQUIRE PROGRAM ( ) will return information on the first copy of the program.

**PRIVate**

The next new copy of the program is to be loaded from a sublibrary of the LIBDEF search chain for the CICS job.

**Shared**

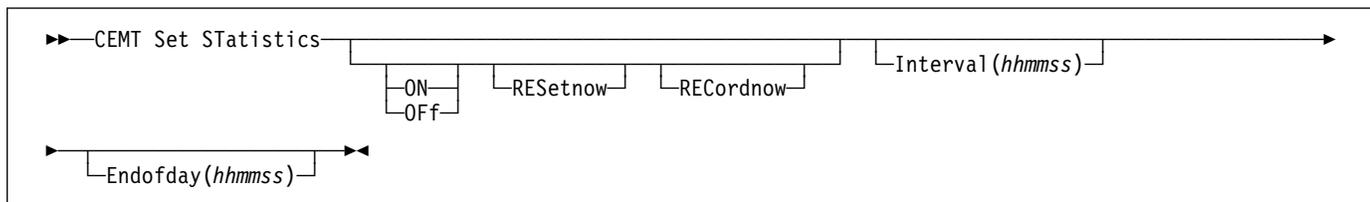
CICS is to use a shared copy of the program from the SVA as the next new copy of the program.

## CEMT SET QUEUE

See “CEMT SET TDQUEUE” on page 117. (QUEUE is accepted for INQUIRE commands, but the correct keyword is TDQUEUE.)

## CEMT SET STATISTICS

Change statistics attributes.



### Context

SET STATISTICS allows you to change some of the values that control the accumulation and recording of statistics.

For information about printing statistics using the CICS-supplied utility program DFHSTUP, see the *CICS Operations and Utilities Guide*.

NEXTTIME cannot be specified on an INQUIRE or SET STATISTICS command, but its value is displayed when INQUIRE STATISTICS is issued. NEXTTIME indicates the time at which statistics will next be recorded and reset. If SET STATISTICS is in the OFF condition, this is at the end of the day. Otherwise, in the ON condition, it is the earlier time of either the next interval to occur or the end of the day.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET STATISTICS (the minimum abbreviation is CEMT S ST). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE STATISTICS. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET STATISTICS (CEMT S ST) followed by one or more attribute settings that you wish to change. For example, `cemt s st on res` will switch CICS statistics ON and will reset the statistics counters.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### Endofday(hhmmss)

specifies the end-of-day time for recording statistics. At end-of-day, the current values of the CICS statistics

counters are written out to a DMF data set and the statistics counters are reset.

End-of-day times must be in the range 000000–235959. The default end-of-day time is 12 midnight (000000).

#### Interval(hhmmss)

specifies the length of time during which the statistics counters are incremented. At the end of each interval, the accumulated statistics are recorded and the statistics counters are reset.

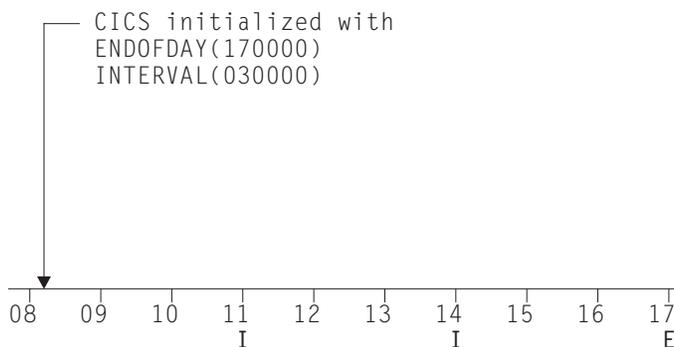
Interval times must be in the range 000100–240000. The default interval value is 030000. These interval settings only take place if you set the statistics recording status to ON. You can set the statistics recording status ON or OFF using the RECORDING option on this command or by using the STATRCD system initialization parameter.

The arrival of the ENDOFDAY time always causes the current interval to be ended (possibly prematurely) and a new interval to be started. Only end-of-day statistics are recorded at the end-of-day time, even if it coincides exactly with the expiry of an interval.

Changing the ENDOFDAY value has an immediate effect on the times at which INTERVAL statistics are recorded. New interval expiry times are recalibrated in accordance with the new end-of-day time.

When you change the INTERVAL value or the ENDOFDAY value (and also when CICS is initialized), the length of the current (or first) interval is adjusted so that it expires after an integral number of intervals from the end-of-day time.

These rules are illustrated by the following example, where I indicates an interval recording, INTERVAL is set at 3-hourly intervals, CICS is initialized at 0815 hours, and E indicates the ENDOFDAY setting at 1700 hours.



**Note:** In this example, there would have been an interval at 0800 hours if CICS had been initialized earlier.

If you want your end-of-day recordings to cover 24 hours, set INTERVAL to 240000.

#### OFF

The recording of interval statistics is switched OFF. (End-of-day, requested, and unsolicited statistics are always recorded.) Counters are still incremented as usual and the recording of end-of-day, requested, and unsolicited statistics is still made. Statistics can be recorded at any time by issuing a CEMT PERFORM STATISTICS command.

#### ON

The recording of interval statistics is switched ON. Counters are incremented as usual, and are reset at the expiry of each interval and at end-of-day. Statistics can be recorded at any time by issuing a CEMT PERFORM STATISTICS command.

#### RECORDNOW

specifies whether existing statistics are to be written to an DMF data set. The existing statistics are to be written to a DMF data set. The statistics that you are given are those collected since the last ENDOFDAY or INTERVAL collection, or since the last time the RESETNOW function was used in this or the PERFORM STATISTICS command. The reset takes effect only if the recording option is changed from OFF to ON or from ON to OFF.

**Note:** RECORDNOW RESETNOW both resets the statistics counter and also writes the existing statistics to a DMF data set. The statistics that you are given are those collected since the last ENDOFDAY or INTERVAL collection, or since the last time the RESETNOW function was used in this or the PERFORM STATISTICS command. RECORDNOW RESETNOW only takes effect when the recording status is changed.

#### RESETNOW

specifies whether the statistics counters are to be reset. The statistics counters are to be reset. The reset takes effect only if the recording option is changed from OFF to ON or from ON to OFF. For information about the

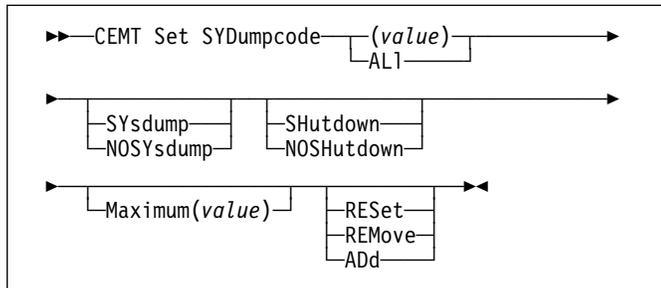
effect of reset on each individual counter, see the CICS statistics tables in the *CICS Performance Guide*.

The action, for each counter, is one of the following:

- Not reset
- Reset to zero
- Reset to 1
- Reset to current value (this applies to peak values)
- An exception to the above.

## CEMT SET SYDUMPCODE

Change the attributes of the system dump codes.



### Context

SET SYDUMPCODE allows you to define the entries that you require in the system dump table. You control system dumps by creating an entry in the system dump table for each dump code that requires a change from the default action.

A system dump code is the CICS message number with the DFH prefix removed. Typically this leaves a 6-character code comprising 2 alphabetic characters and 4 numeric characters, for example AP0001. The command syntax permits up to 8 characters for the dump code, and the dump codes you specify are padded with trailing spaces.

Each message has its own system default actions that you cannot necessarily override with the SET command. For example, when a serious error occurs, CICS shuts down even if you have specified no shut down. See the *VSE/ESA Messages and Codes Volume 3* manual for information about the system action for each message.

There are other system parameters that take priority over your dump table entries. For example, EXEC CICS SET SYSTEM NOSYS DUMP, or a DUMP=NO system initialization parameter, inhibits system dumping. For more information on using dumps, see the *CICS Problem Determination Guide*.

The transaction dump command SET TRDUMPCODE can also cause CICS to produce system dumps for the specified transaction dump code.

The SET command allows you to:

- Add a new entry to the system dump table
- Remove an entry from the system dump table
- Indicate whether or not you want a system dump taken
- Indicate whether the system dump request is to be local or related
- Indicate whether or not you want CICS to shut down following the dump

- Set the maximum number of dumps
- Reset the counter of the current number of dumps to zero.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET SYDUMPCODE (the minimum abbreviation is CEMT S SYD) with a system dump code or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE SYDUMPCODE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET SYDUMPCODE (CEMT S SYD) with a system dump code or ALL, followed by one or more attribute settings that you wish to change. For example, to add a system dump code:

```
CEMT SET SYDUMPCODE(value) ADD
```

To remove a system dump code:

```
CEMT SET SYDUMPCODE(value) REMOVE
```

To change the maximum count to 10:

```
CEMT SET SYDUMPCODE(value) MAX(10)
```

Shut down CICS on occurrence of this system dump code:

```
CEMT SET SYDUMPCODE(value) SHUTDOWN
```

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

**(value)**

specifies an 8-character system dump code. See the *VSE/ESA Messages and Codes Volume 3* manual for details of the codes.

**ADD**

This system dump code is added to the system dump code table.

**ALI**

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

**Maximum(value)**

specifies the maximum number of system dump calls for this system dump code that result in system dumps being taken. The value must be in the range 0–999; a value of 999 means the default, 'no limit'.

**NOSHUTDOWN**

CICS is not to be shut down after the occurrence of an error corresponding to this dump code. This is the default setting for new dump table entries.

**NOSYsdump**

A system dump (VSE SDUMP) is not to be taken for this system dump code.

**REMove**

This system dump code is removed from the system dump code table.

**RESet**

The current number of calls for this dump code is reset to zero.

**SHutdown**

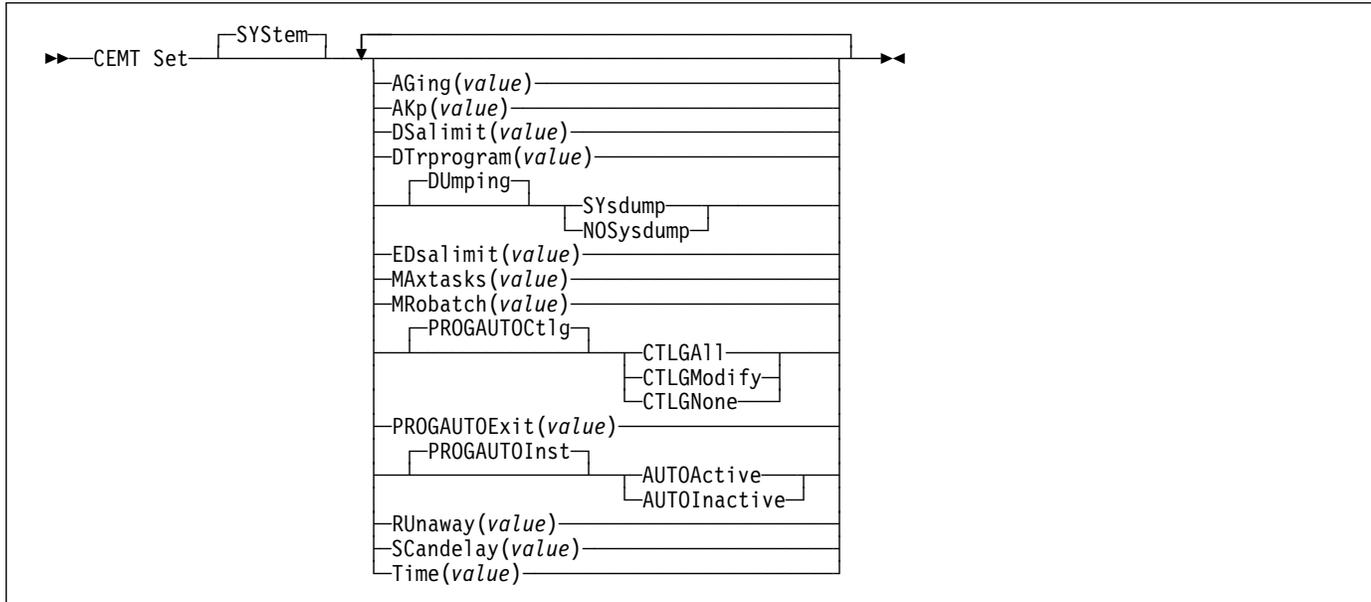
CICS is to be shut down after the occurrence of an error corresponding to this dump code.

**SYsdump**

A system dump (VSE SDUMP) is to be taken for this system dump code. This is the default setting for new dump table entries.

## CEMT SET SYSTEM

Change the system attributes.



Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET. The SYSTEM keyword does not have to be typed. If you type just CEMT SET, SYSTEM is assumed as the default. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE SYSTEM. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET followed by one or more attribute settings that you wish to change. For example, `cemt sag(value) ma(value)` will reset the values for priority aging and for the maximum number of tasks allowed at any one time in the CICS system.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

Changes to options that are cataloged are preserved across both warm and cold starts. Only by deleting and redefining the local and global catalog data sets can you revert to the value specified in the relevant system initialization parameter. See the *CICS System Definition Guide* manual for information about the local and global catalog data sets (LCD and GCD).

### Options

#### AGing(value)

specifies the time factor for CICS to use in the priority aging algorithm for incrementing the priority of a task. The value is expressed as “milliseconds per unit of priority”, and must be in the range 00000–65535. The priority aging factor is defined initially by the PRTYAGE

system initialization parameter, in which the value represents the number of milliseconds that must elapse before the priority of a waiting task can be adjusted upward by 1. See the *CICS System Definition Guide* for information about the PRTYAGE system initialization parameter.

#### AKp(value)

specifies the activity keypoint trigger value, which is the number of logging operations between the taking of keypoints. It must have a value in the range 00200–65535. You cannot change this value if AKPFREQ=0 was specified at system initialization.

#### DSalimit(value)

specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside below the 16MB boundary. (See the *CICS System Definition Guide* for a description of the DSALIM system initialization parameter.) If DSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs. Changes to DSALIMIT are cataloged and thus preserved across both warm and cold starts. Only by deleting and redefining the local and global catalog data sets can you revert to the value specified in the DSALIM system initialization parameter.

#### DTprogram(value)

specifies the name of the program defined to control the dynamic routing of programs.

**DU**mping

specifies whether system dumps (VSE SDUMP) are to be suppressed. You should omit 'DUMPING' when specifying the value. The values are:

**NOS**ysdump

System dumps are to be suppressed.

**SY**sdump

System dumps are not to be suppressed.

**ED**salimit(*value*)

specifies the maximum amount of storage, as a total number of bytes, within which CICS can dynamically allocate storage for the four individual DSAs that reside above the 16MB boundary. (See the *CICS System Definition Guide* for a description of the EDSALIM system initialization parameter.) If EDSALIMIT specifies a value lower than the current limit, CICS may not be able to implement the new limit immediately, but will attempt to do so over time as dynamic storage is freed in the individual DSAs. Changes to EDSALIMIT are cataloged and thus preserved across both warm and cold starts. Only by deleting and redefining the local and global catalog data sets can you revert to the value specified in the EDSALIM system initialization parameter.

**MA**xtasks(*value*)

specifies the maximum number of tasks, both active and suspended, allowed at any one time in the CICS system. It must have a value in the range 1–999.

**Note:** The value assigned to MAXTASKS might be less than the requested value, because of CICS storage constraints. If this occurs, the message CEILING REACHED is displayed when the request is made.

**MR**obatch(*value*)

specifies the number of MRO requests from connected regions that are to be batched before this region is posted. It must have a value in the range 001–255.

**PROG**AUTOCTLg

specifies whether autoinstalled program definitions are to be cataloged. You should omit 'PROGAUTOCTLG' when specifying the value. The values are:

**CTLG**All

All autoinstalled program definitions are to be cataloged and restored on a warm or emergency restart.

**CTLG**Modify

Autoinstalled program definitions are to be cataloged only if they are modified (for example, by a CEMT SET PROGRAM command), so that the modified definitions are restored on a warm or emergency restart.

**CTLG**None

No autoinstalled program definitions are to be cataloged. They are autoinstalled again after a warm or emergency restart.

**PROG**AUTOExit(*value*)

specifies the name of the user-provided program that is called by the program autoinstall code to select or modify a model definition.

**PROG**AUTOInst

specifies whether autoinstall for programs is active or inactive. You should omit 'PROGAUTOINST' when specifying the value. The values are:

**AUTO**Active

Autoinstall for programs is active. On first use, if a program, mapset, or partitionset is not defined, the definition is created dynamically.

**AUTO**Inactive

Autoinstall is not active. If a program is not defined, a PGMIDERR or transaction abend occurs when it is referenced.

**RU**naway(*value*)

specifies the interval, in milliseconds, for which a task can have control before it is assumed to be looping.

You can specify 0, or a value in the range 500–2700000. The value chosen is rounded down to a multiple of 500. CICS purges a task if it has not given up control after this interval (that is, if the task appears to be looping). If you specify zero, runaway task control is inoperative (that is, tasks do not get purged if they appear to be looping). The value is independent of, and can be less than, the value in the TIME operand.

CICS runaway-task detection is based upon task time, that is, the interval is decremented only when the task has control of the processor. You do not, therefore, need to allow for the effect of other jobs when setting the value.

**SC**andelay(*value*)

specifies the maximum number of milliseconds between the receipt of a VTAM request, and the time when CICS begins to process the request. The number must be in the range 0–5000, and must be less than or equal to the TIME value.

In the summary report of the dispatcher statistics, SCANDELAY is referred to as ICVTSD.

**Time**(*value*)

specifies the interval, in milliseconds, for which CICS releases control to the operating system if no transactions are ready to resume processing. This interval is known as the 'region exit interval'.

It can have a value in the range 100–3600000, and must be greater than or equal to the SCANDELAY value.

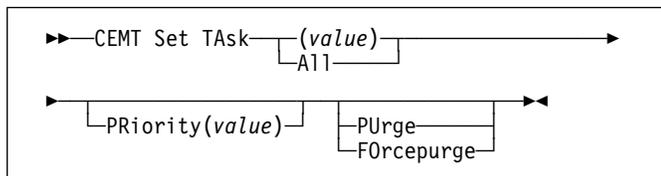
In the summary report of the dispatcher statistics, TIME is referred to as ICV.

## CEMT SET TASK

Change the status of tasks.

### Context

You cannot specify a list of identifiers, nor can you use the symbols \* and + to specify a family of tasks.



Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TASK (the minimum abbreviation is CEMT S TA) with (*value*) or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TASK. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TASK (CEMT S TA) with number or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s ta(value) pu` will make the specified task purgeable in system-stall conditions.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### (*value*)

The CICS-generated task number. This is in the range 1–99999.

**All** Any changes you request are made to all resources of the specified type that you are authorized to access.

#### **FO**rcepurge

The task is terminated immediately. System integrity is not guaranteed. In some extreme cases, for example if a task is forcepurged during backout processing, CICS terminates abnormally. If you want to terminate a task but do not want to terminate CICS, you should use PURGE instead of FORCEPURGE.

#### **PR**iority(*value*)

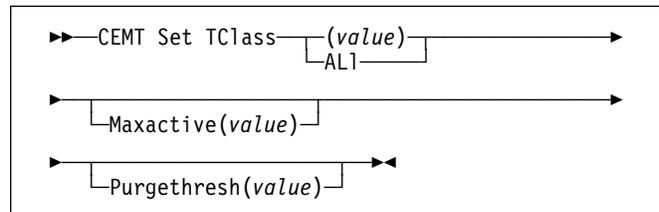
specifies the priority of the task, in the range 0–255 where 255 is the highest priority.

#### **PU**rge

The task is terminated. Task termination occurs only when system and data integrity can be maintained.

## CEMT SET TCLASS

Reset the maximum number of tasks and the purge threshold for a transaction class.



Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TCLASS (the minimum abbreviation is CEMT S TC) with (*value*) or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TCLASS. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TCLASS (CEMT S TC) followed by one or more attribute settings that you wish to change. For example, `cemt s tc(value) p(3)` will reset the purge threshold value to 3.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### (*value*)

specifies the 8-character transaction class name. If no transaction class name is assigned, it defaults to DFHTCL00.

#### **ALL**

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

#### **Max**active(*value*)

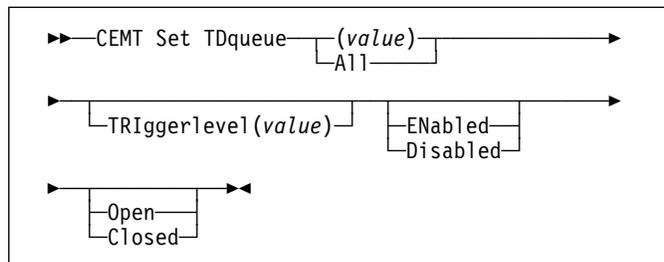
specifies the largest number of transactions in the transaction class which are allowed to run concurrently. The value can be in the range 0-999—a value of zero signifies that **all** tasks are to be opened.

#### **Pur**gethresh(*value*)

specifies the limit at which the queuing transactions are purged for the transaction class. It can have a value in the range 0–1000000. Zero means that the queue is unlimited in size (other than by the storage made available to attach tasks). A nonzero number “n” means that the first (n-1) transactions to arrive are queued and the nth is purged.

## CEMT SET TDQUEUE

Change the attributes of transient data queues.



### Context

The SET TDQUEUE command changes some of the attributes of a transient data queue that is defined in the destination control table (DCT). The queue must not be REMOTE or INDIRECT.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TDQUEUE (the minimum abbreviation is CEMT S TD) with destid or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TDQUEUE. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TDQUEUE (CEMT S TD) with *(value)* or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s td(value) en op` will make a named extrapartition queue accessible by applications and open.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### *(value)* value

specifies the identifier (1–4 characters) of a transient data queue.

**All** specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

#### Closed

The extrapartition queue is closed.

#### Disabled

The queue cannot be accessed by applications, although it can still be open. Queues with names beginning with

“C” cannot be disabled because they are usually reserved for use by CICS.

#### Enabled

The queue can be accessed by applications.

#### Open

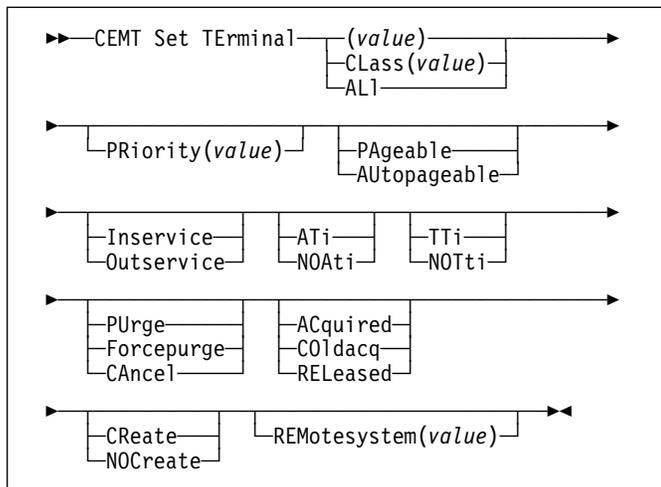
The extrapartition queue is open.

#### TRIGGERlevel(*value*)

specifies the number (0–32767) of requests for output to an intrapartition queue that there must be before automatic transaction initiation (ATI) occurs.

## CEMT SET TERMINAL

Change the attributes of named terminals.



### Context

The SET TERMINAL command changes some of the values of a named terminal defined in the terminal control table (TCT). It cannot be used for APPC sessions.

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session.

If you are familiar with network names, you may prefer to use the command that uses these names. See "CEMT SET NETNAME" on page 106.

The message "TEMP OUT SERVICE" can be displayed if recovery is in progress for the terminal. The "TEMP OUT SERVICE" indicator is reset by simply refreshing the screen, or by overtyping the "INS" field with "INS" or "OUT". If "TEMP OUT SERVICE" continues to be displayed, the cause of the indicator should be investigated.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TERMINAL (the minimum abbreviation is CEMT S TE) with *(value)*, CLASS(*value*), or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TERMINAL. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET TERMINAL (CEMT S TE) with *(value)*, CLASS(*value*), or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s te(value) i cr` specifies that a named terminal is available for use (inservice) and that it can be acquired automatically by ATI transactions (create).

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### *(value)*

A terminal identifier (1–4 characters) as specified in an installed terminal definition.

If the terminal name is, for example, S201, this option is coded thus:

```
CEMT SET TERMINAL(S201)
```

#### ACquired

CICS is in session with the logical unit represented by the terminal.

#### ALI

Any changes you request are made to all resources of the specified type that you are authorized to access.

#### ATi

The terminal is available for use by transactions that are initiated automatically from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

#### AUtopageable

Pages after the first in a series are to be written to the terminal automatically.

#### CAnce1

AIDs queuing for the specified terminal are canceled. AIDs representing scheduled and allocated requests waiting in the local CICS system for the specified terminal are canceled. However, TD AIDs with an associated triggered task already started are not canceled.

When a canceled scheduled request is found to have a precursor in a remote CICS system, this remote AID is canceled asynchronously. Message DFHTF0100 is written to CSMT to indicate how many AIDs have been deleted for the terminal and how many remain.

An 'AIDS CANCELED' message appears on the CEMT panel whenever AIDs are deleted using the CANCEL option of the CEMT SET TERMINAL command.

**CLass**(*value*)

The 1-or 2-character suffix of a terminal list table (TLT) which defines the identifiers of the terminals for which the status is to be changed.

**COLdacq**

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

**CReate**

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request.

**Forcepurge**

Any transaction running with this terminal is immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

**Inservice**

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

**NOAti**

The terminal is not available for use by transactions that are initiated automatically from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

**Note:** A terminal cannot be defined with both NOATI and NOTTI.

**NOCcreate**

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEMT SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

**NOTti**

This terminal cannot be used by transactions that are initiated from this terminal.

**Note:** A terminal cannot be defined with both NOATI and NOTTI.

**Outservice**

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be

used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

To set an IRC session OUTSERVICE, you must set the connection to the MRO partner OUTSERVICE.

**PAgeable**

Pages after the first in a series are to be written to the terminal only if you request them to be.

**PRiority**(*value*) (**VTAM only**)

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

**PURge**

Any transaction running with this terminal is purged only if system and data integrity can be maintained.

**RELEased**

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

**REMOtesystem**(*value*)

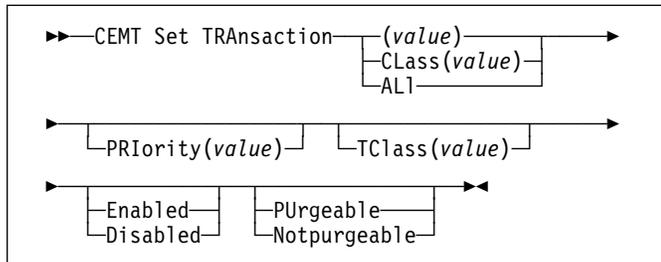
specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system.

**TTi**

This terminal can be used by transactions that are initiated from this terminal.

### CEMT SET TRANSACTION

Change some of the attributes of a selected transaction.



Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TRANSACTION (the minimum abbreviation is CEMT S TRA) with *(value)*, CLASS(*value*), or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TRANSACTION. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET TRANSACTION (CEMT S TRA) followed by one or more attribute settings that you wish to change. For example, `cemt s tra(value) e pu` specifies that a named transaction is available for use (enabled) and is system-purgeable.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### *(value)*

specifies a transaction identifier (1–4 characters). Only transactions that have been defined in the CICS system definition (CSD) file and installed on the running CICS system are accessible through CEMT.

#### ALl

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

#### CLass(*value*)

specifies the 2-character suffix of a transaction list table (XLT).

#### Disabled

The transaction is not available for use. Transactions that have identifiers beginning with “C” cannot be disabled because these are reserved for use by CICS.

When the CEMT SET TRANSACTION DISABLED command is used, existing transactions run to completion before being DISABLED.

**Note:** If a transaction is disabled, this does not prevent a START command which names this transaction from

being shipped to a remote region. When a task is attached for the requested transaction, CICS checks that the transaction is enabled in the remote region.

#### Enabled

The transaction is available for use.

#### Notpurgeable

The transaction cannot be purged if a system stall condition occurs.

#### PRIority(*value*)

specifies the priority of a transaction relative to other transactions. When a transaction is running as a CICS task, the priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. The “value” must be in the range 0–255, where 255 is the highest priority.

#### PURgeable

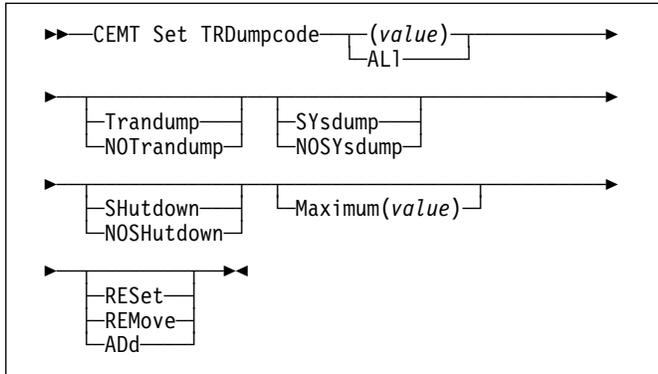
The transaction is system-purgeable if a system stall condition occurs. This operand relates to the SPURGE parameter on the RDO TRANSACTION resource definition and indicates that CICS can purge the transaction in a deadlock time-out situation. See the *CICS Resource Definition Guide* for information about the SPURGE and DTIMEOUT parameters on an RDO TRANSACTION resource definition.

#### TCLass(*value*)

specifies the 8-character transaction class name to which the transaction belongs. If the transaction does not belong to a class, DFHTCL00 is returned. To remove a transaction from its TCLASS, the TCLASS field should be set to DFHTCL00. A series of blanks can be inserted, in which case, DFHTCL00 is returned. An added or changed TClass **must** be defined.

## CEMT SET TRDUMPCODE

Change the status of a transaction dump table entry.



### Context

Using the SET function, you can change entries in the transaction dump table to request a transaction dump. You can also set the maximum number of dumps that can be taken. See the *CICS Problem Determination Guide* for information on using dumps.

**Note:** SHUTDOWN and MAXIMUM must not be used in the same command.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET TRDUMPCODE (the minimum abbreviation is CEMT S TRD) with *(value)* or ALL. You get a display that lists the current status, similar to that obtained by CEMT INQUIRE TRDUMPCODE. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEMT SET TRDUMPCODE (CEMT S TRD) followed by one or more attribute settings that you wish to change. For example, `cemt s trd(value) t sh` specifies that a transaction dump is to be taken for the named transaction dump code and that the CICS system is to shut down after the occurrence of an error corresponding to this dump code.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

*(value)*

specifies a 4-byte transaction dump code. See the *VSE/ESA Messages and Codes Volume 3* manual for a list of CICS transaction dump codes.

#### ADd

The specified transaction dump code is to be added to the dump code table.

#### ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

#### Maximum(*value*)

specifies the largest number of dump calls for this dump code that result in dumps being taken. The range is 0–999, though a value of 999 means 'no limit'.

#### NOSHutdown

The CICS system is not to shut down.

#### NOSYsdump

A system dump is not to be taken for this transaction dump code.

#### NOTrandump

A transaction dump is not to be taken for this transaction dump code.

#### REMOve

This code is to be removed from the dump code table.

#### RESet

The current count of dump calls for this dump code is to be reset to zero.

#### SHutdown

The CICS system is to shut down.

#### SYsdump

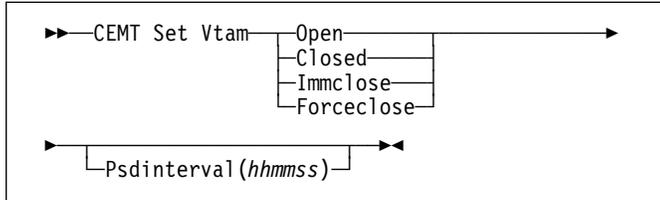
A system dump is to be taken for this transaction dump code.

#### Trandump

A transaction dump is to be taken for this transaction dump code.

## CEMT SET VTAM

Open or close the VTAM ACB and set the persistent session delay interval (PSDI).



Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEMT SET VTAM (the minimum abbreviation is CEMT S V). You get a display that lists the current status, similar to that obtained by CEMT INQUIRE VTAM. You can then tab to the highlighted or blank fields and overwrite them with the required values.
- Type CEMT SET VTAM (CEMT S V) followed by one or more attribute settings that you wish to change. For example, `cemt s v o` specifies that the connection between CICS and VTAM is established.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### Closed

The connection between CICS and VTAM is to terminate normally; that is, transactions are allowed to complete and terminals are released normally.

#### Forceclose

The connection is terminated immediately, and all terminal connections using the VTAM ACB (access method control block), together with the transactions associated with them, are terminated abnormally. If transactions do not terminate because of their state at the time FORCECLOSE was issued, it is necessary to issue CEMT SET TASK(nn) PURGE or FORCEPURGE before the ACB can be reopened.

If VTAM persistent sessions support is in use (that is, the SIT parameter PSDINT has a value other than 0) the sessions will persist when the ACB is closed. They will be unbound if the ACB is re-opened dynamically. If CICS has shutdown in any way other than a normal shutdown (see the *CICS Recovery and Restart Guide* for a description of normal shutdown), and is restarted with the system initialization START option START=AUTO, then an emergency restart will be performed, and the sessions will be restored.

The difference between IMMCLOSE and FORCECLOSE is that IMMCLOSE cancels any task at a VTAM terminal

and then closes the terminal sessions tidily.

FORCECLOSE cancels any task and closes the VTAM ACB, terminating all sessions immediately (unless VTAM persistent sessions support is in use).

#### Immclose

The connection between CICS and VTAM is to be terminated immediately. Any transactions using VTAM-connected terminals are terminated abnormally, and all such terminals are lost to CICS.

The difference between IMMCLOSE and FORCECLOSE is that IMMCLOSE cancels any task at a VTAM terminal and then closes the terminal sessions tidily.

FORCECLOSE cancels any task and closes the VTAM ACB, terminating all sessions immediately.

#### Open

The connection between CICS and VTAM is established. With VTAM, this refers to the opening of the VTAM ACB through which VTAM communicates with CICS.

A CEMT SET VTAM OPEN command will fail with a STILL CLOSING message if the command is issued while a previous predatory takeover is still being processed. No attempt is made to open the VTAM ACB, because it is still being closed as a result of the predatory takeover. After the predatory takeover completes, the CEMT SET VTAM OPEN command will work as normal. The failure is notified by a RESP=INVREQ and RESP2=14 condition.

#### Psdinterval(hhmmss)

specifies the persistent session delay interval, expressed in the form *hhmmss*. It specifies if and for how long sessions are held in recovery-pending state after CICS fails. The permitted range is 000000 to 235959 inclusive.

**000000** If CICS fails, sessions are terminated.

**hhmmss** If CICS fails, sessions are held in recovery-pending state by VTAM for up to the interval specified.

CEMT issues the following error messages associated with the use of CEMT to set the persistent session delay interval:

| Message          | RESP/RESP2                |
|------------------|---------------------------|
| INVALID PSDINT   | RESP=INVREQ, RESP2=4      |
| NOT WITH XRF     | RESP=INVREQ, RESP2=8      |
| SETLOGON FAILURE | RESP=INVREQ, RESP2=9      |
| ACB CLOSED       | RESP=INVREQ, RESP2=12     |
| RECOVERY ERROR   | All other cases of INVREQ |

## Chapter 9. CEOS—report controller (terminal operator)

The report controller is an online tool which you use to manage the output of CICS transactions or batch programs destined for printing on a device owned by CICS.

**Note:** Report controller support must be enabled before the CEOS transaction can be used. For details of how to do this, see the *CICS System Definition Guide*.

You must ensure that the RCF resource definitions are installed. These resource definitions are provided in the IBM-supplied group, DFHRCF. For information about installing resource definitions, see the *CICS Resource Definition Guide* manual.

CEOS is a pseudoconversational transaction that uses temporary storage and BMS, except when using the browse facility. You can only use CEOS from a 3270 family display terminal that has a screen width of 80 columns or more, and a screen depth of 24 lines or more.

Enter CEOS on the command line of the screen, as follows:

```
CEOS
```

You get the display shown in Figure 65.

```

CEOS: 1          CICS REPORT CONTROLLER
Select one of the following options:
    1 Report selection.
    2 Printer selection.

Selection ==> _

PF1=Help PF3=End ENTER=Continue.
```

Figure 65. CEOS transaction: initial screen

If the feature is not present on your system, you get the following message:

```
DFHAC2001 TRANSACTION 'CEOS' IS NOT RECOGNIZED.
CHECK THAT THE TRANSACTION NAME IS CORRECT
```

Pressing PF1 generates a help panel that lists the functions of CEOS.

For more guidance information on the CEOS command, see the *CICS Report Controller User's Guide*.



## Chapter 10. CEOT—terminal status

Inquire about the status of your own terminal, and change some of its values.

### Context

Use CEOT to inquire about the status of your own terminal, and to change some of its processing values. You cannot use CEOT to inquire about or change the values of any other terminal.

You can start CEOT from 3270 family display devices, or from equivalent terminals, or from the operating system console.

Press the Clear key to clear the screen. There are two ways of using this transaction: in inquiry mode and in set mode.

### CEOT in inquiry mode

Type CEOT. You get the following display:

```

STATUS: RESULTS - OVERTYPE TO MODIFY
Ter(S208) Tra(CEOT) Pri(000) Pag Ins Ati Tti
Net(IGKS208 ) Acq

CEOT SYNTAX:
< PAgeable | AUtopageable >
< ATi | NOAti >
< TTi | NOTti >

```

Figure 66. CEOT transaction: initial screen

The top half of the screen shows the current status of your terminal. The bottom half of the screen shows the syntax of the CEOT command.

**Note:** NET, ACQ, and CRE are not displayed for non-VTAM terminals.

The status items are displayed in the following sequence.

**Note:** If an item has a “negative” value—for example, NOATI—that value will be replaced by a blank space.

#### Acq

CICS is in session with the logical unit represented by this terminal. You cannot overtype this value.

#### ATi

See 'ATI' in the Command Options below.

#### Cre

This terminal can be acquired automatically by ATI transactions. You cannot overtype this value.

#### Ins

Your terminal is INSERVICE. You cannot overtype this value.

#### Net(netname)

displays the name by which this terminal is known to VTAM.

#### Pag|Aut

See 'PAGEABLE' and 'AUTOPAGEABLE' in the Command Options below.

The paging status can be modified by overtyping.

#### Pri(nnn)

displays the priority of your terminal relative to other terminals, and is a number in the range 0–255.

#### Ter(xxxx)

displays the 4-character identifier of your terminal.

#### Tra(CEOT)

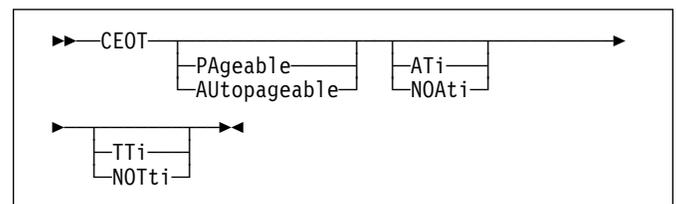
displays the transaction that is running on your terminal. This is always CEOT.

#### Tti

The terminal is available for use by transactions initiated from this terminal. You cannot change the TTI setting by overtyping it with blanks.

### CEOT in set mode

Type CEOT followed by one or more of the following attributes:



#### ATi

Your terminal is available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

#### AUtopageable

Pages after the first in a series are written to the terminal automatically. This option should never be used with a display device.

#### NOAti

Your terminal is not available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

## **CEOT—terminal status**

### **NOTti**

This terminal cannot be used by transactions that are initiated from this terminal. Setting NOTTI is valid only for sequential devices.

### **PAgeable**

Pages after the first in a series are written to the terminal on request.

### **TTi**

This terminal can be used by transactions that are initiated from this terminal.

Typing ? at the beginning of the first line gives a syntax prompt. Resetting the values takes effect immediately.

If you do not want to view the current status of your terminal (as displayed in the top half of the CEOT screen), you can change the paging status and the ATI status by using the CEOT syntax displayed in the bottom half of the screen. So, for example, if you simply want to make your terminal PAGEABLE, type CEOT PAGEABLE on the command line of your display and press the Enter key.

### **Notes:**

1. You can use CEOT with the routing transaction (CRTE).
  - A user can inquire only about his or her own terminal, and cannot change any of the attributes.
  - The attributes returned are those of the remote terminal TCTTE in the application-owning region(AOR).
  - You must cancel the CRTE transaction by typing CANCEL on the command line.
2. Using CEOT in the TOR:
  - When a terminal is defined as unshippable, and CEOT is used to change the status of the terminal, the changes are not reflected in a remote terminal built in an AOR as a result of a transaction routing request. The status of the remote terminal is determined by the remote definition of the terminal in the AOR.
  - Even when a terminal is defined as shippable, a status change made in the TOR, using CEOT, is not reflected in an existing remote terminal definition in the AOR. A remote terminal in the AOR is created from a shippable definition the first time it is required in the AOR for running a program. The status of the remote terminal returned is its current status in the TOR. Any later updates are not passed on to the remote terminal.
3. If you make an invalid request, CICS lists the keyword options and waits for a valid keyword entry.

## Chapter 11. CESF—sign off

Use the CESF transaction to sign off from the CICS system.

This transaction:

- Writes the signoff message to your terminal
- Logs the message on the transient data destination CSCS
- Logs any error message on the transient data destination CSMT.

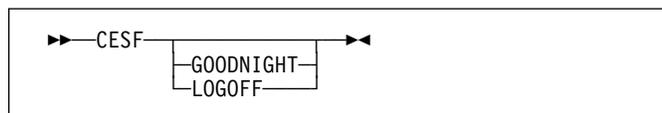
If you are using CESF to disconnect a terminal and security is active, a message will still be sent to the log if the signoff fails. However, this will not stop the terminal being disconnected if it is a preset terminal or if the terminal is not signed on.

You cannot use CESF on:

- Fixed-format terminals (such as the 3608, the 3614, and the 3653)
- Numeric-only terminals.

For these devices, you must code your own transaction using the EXEC CICS SIGNOFF command. For programming information about this command, see the *CICS Application Programming Reference* manual.

The syntax of the CESF transaction is as follows:



If you simply type CESF by itself, you are signed off the CICS system. Your terminal can still start transactions without you having to request them, and messages can be sent to it. You can sign on again at that terminal at any time.

The effects of typing CESF with the GOODNIGHT value or the LOGOFF value depend on the access method in use, as shown in Table 5:

|                   | VTAM<br>DISCREQ=YES | Otherwise |
|-------------------|---------------------|-----------|
| CESF              | TTI                 | TTI       |
| CESF LOGOFF       | Disc, TTI           | TTI       |
| CESF<br>GOODNIGHT | Disc, TTI           | NOTTI     |

where:

- Disc** The terminal is disconnected.
- TTI** Terminal transaction initiation is allowed.
- NOTTI** Terminal transaction initiation is not allowed, and your terminal is placed in RECEIVE status so that, the next time a connection is made, it can receive messages.

DISCREQ(YES) is an operand of the RDO TYPETERM resource definition associated with the terminal, and means that CICS is to honor a disconnect request. If DISCREQ(NO), a disconnect request (for example, a CESF LOGOFF request) is not honored.

If a CESF GOODNIGHT is given when there are outstanding automatic transaction initiation (ATI) requests, the ATI requests are actioned and the session is reacquired irrespective of the RDO options.

**CESF—sign off**

## Chapter 12. CESN—sign on

By default, intending users of CICS see the CICS “good-morning” panel displayed when they logon to CICS as a VTAM application (see Figure 67).

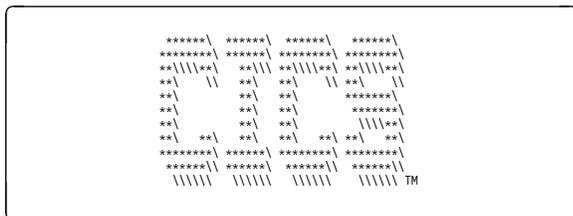


Figure 67. The CICS good-morning panel

This panel is displayed by the CICS-supplied transaction, CSGM. Instead of using CSGM, you can specify your own transaction panel on the GMTRAN system initialization parameter.

Users may either press the CLEAR key and type the CICS sign-on transaction id, CESN or, if CESN is specified as the good-morning transaction, CICS displays the sign-on panel shown in Figure 68.

The user ID specified for this transaction is used in error messages and so on, to identify the user.

### Notes:

1. If you sign on at a terminal that is already signed on, CICS signs off the previous operator. This does not happen, however, unless you complete the CESN panel before pressing ENTER. For further information, see “Signing off with CESN” on page 130.
2. For numeric-only devices or for the IBM 2741 Communication Terminal, use the signon procedure described in “Non-3270 family terminal” on page 130.
3. The installed external security manager (ESM) recognizes only uppercase alphabetic characters. Userids and passwords specified in the CESN transaction are **only** translated to uppercase if the UCTRAN(YES) attribute is specified in the RDO PROFILE resource definition or RDO TYPETERM resource definition, otherwise data is passed to the ESM as entered. See the *CICS Resource Definition Guide* for information on defining PROFILE and TYPETERM.
4. Autoinstall of BMS maps is not carried out within the CESN transaction. When CESN tries to send out any BMS map that is not installed, CESN will send out the English BMS map.

5. This dialog will not prompt you for a new password unless your old password has expired. If you wish to change your password before it has expired, you must use another method, such as signing on at a CICS terminal rather than a console.

## IBM 3270 family display devices

Clear the screen, and type CESN on the command line of the screen. Press ENTER. You get the following display:

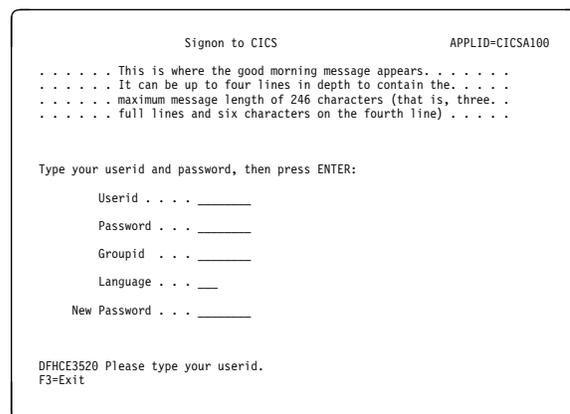
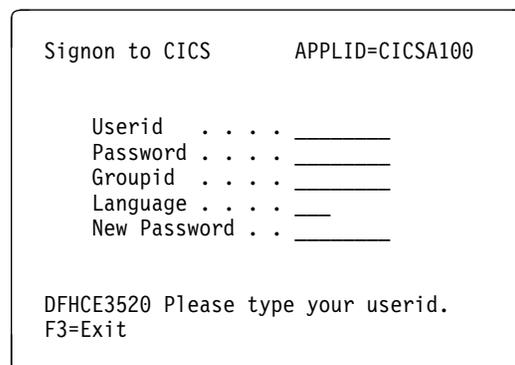


Figure 68. CESN transaction: initial screen

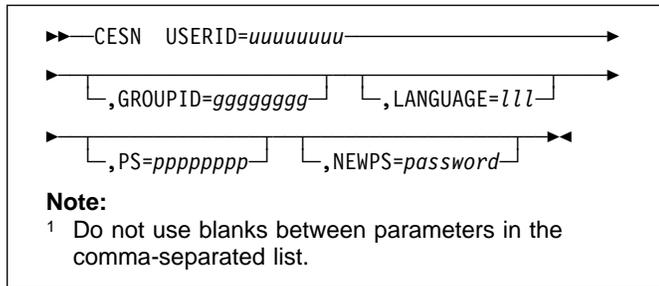
The panel for 40 x 12 size screens is shown below. There is no space for the release number or the good morning message.



Enter your user ID. This may be up to 8 characters in length.

## Non-3270 family terminal

A user can also sign on by providing all the user information along with the transaction id, as follows:



This style of input can be used on video display terminals, but is especially useful for sequential terminals and devices not belonging to the IBM 3270 family of terminals.

### Command options

#### GROUPID=gggggggg

is your group userid (up to 8 characters).

#### LANGUAGE=III

enables you to choose a national language (from those that are available at your installation) for terminal directed messages. "III", the national language identifier, is a standard, three-character IBM code. If the language identifier is omitted, CICS examines the following in this order:

1. Language specified for the user in the signon table
2. Language specified in the installed terminal definition for the terminal at which the signon occurs
3. Language specified on the NATLANG system initialization parameter.

If you enter a code other than the range of IBM codes, you get the following message:

```
DFHCE3537 Language is invalid. Please retype.
```

#### NEWPS=password

"password" is your new password (up to 8 characters). A 'password' value that consist entirely of space characters will not be interpreted as a password update request. The user will not be prompted for verification.

#### PS=pppppppp

is your password (up to 8 characters).

#### USERID=uuuuuuuu

is your user ID (up to 8 characters).

## Signing off with CESN

When a user starts the CESN transaction, CICS verifies userids and password by calling the ESM. If the terminal user sign-on is valid, the CICS user domain keeps track of the signed-on user. Thereafter, CICS uses the information about the user when calling the ESM to make authorization checks. If a user was signed on before the call to the ESM, this signed-on user is signed off by CICS whether the returns from the ESM are valid or invalid.

If users enter the CESN transaction when they are already signed on, the transaction may or may not sign them off. For example, a user is not signed off by entering CESN, and then pressing F3 when the signon panel is displayed.

In CICS Transaction Server for VSE/ESA Release 1, CESN signs off any signed-on user only when a new signon attempt is made. A signed-on user is signed off when a userid is entered on the signon panel and the ENTER key is pressed. Alternatively, the signed-on user is signed off if the CESN transaction identifier is entered with operands (for example USERID=userid), and the ENTER key is pressed.

Unsuccessful sign-on and sign-off errors cause DFHCEnnnn messages to be issued.

ESM OI CARD users can use CESN to sign on if the card reader supports the DFHOPID attention identifier (AID). If it does not, you will need to write your own sign-on program using the EXEC CICS SIGNON command. For programming information see the *CICS Application Programming Reference*.

## Chapter 13. CEST—supervisory terminal

Use CEST to invoke a subset of the master terminal (CEMT) transaction. The CEST INQ|SET commands allows you to inquire about and alter some of the values of lines, netnames, tasks, and terminals.

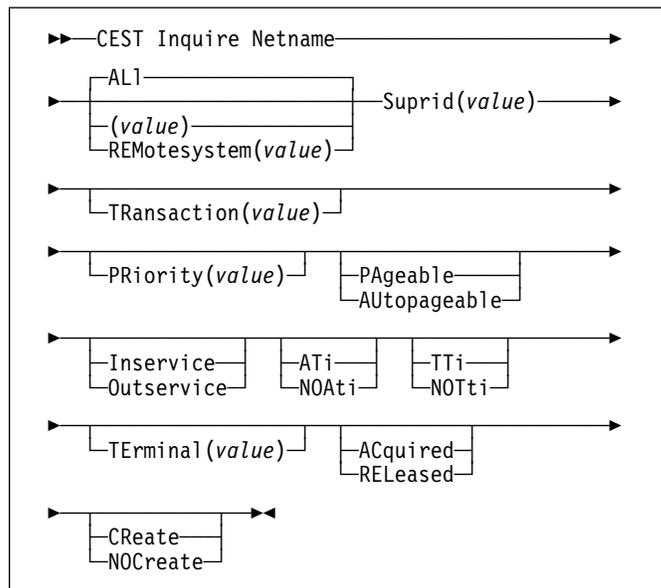
CEST can be invoked from 3270 family display devices, or from equivalent terminals, or from the operating system console.

All of the CEST commands require the SUPRID keyword to be specified. SUPRID identifies the supervisor invoking the transaction, and its value is the 1-or 2-character suffix of a terminal list table (TLT). For information about the TLT, see the *CICS Resource Definition Guide*.

Many of the request formats contain the ALL option. For CEST INQUIRE requests, this is the default value. For example, if you enter just CEST INQUIRE TERMINAL, you get information about all terminals.

### CEST INQUIRE NETNAME

Retrieve information about a network.



### Context

If you are familiar with network names, you may prefer to use this command as an alternative to CEST INQUIRE TERMINAL.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST INQUIRE NETNAME SUPRID(xx) (the minimum abbreviation is CEST I N S(xx)). You get a display that lists the current status.
- Type CEST INQUIRE NETNAME SUPRID(xx) (CEST I N S(xx)) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter cent i n ins ati, the resulting display will show you the details of only those netnames that are in service and available for use.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).
- Use the CEST SET NETNAME command (see page 138).

## CEST INQUIRE NETNAME

### ALI

is the default. For example, if you inquire about terminals, you receive information about all terminals, unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

### Suprid(value)

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

The remaining operands for NETNAME are identical to those for CEST INQUIRE TERMINAL.

### (value) (VTAM only)

is the 8-character name by which the remote system or terminal is known to the network. Netnames need not be unique, and you cannot specify a list of names. This field is blank if the access method is not known to VTAM.

## Examples

```
CEST IN NETNAME
STATUS: RESULTS - OVERTYPE TO MODIFY
Net(IGKS205 ) Tra(CEST) Pri( 000 ) Pag Ins Ati Tti ___
Ter(S205) Acq ___
```

Figure 69. CEST INQUIRE NETNAME screen

**Note:** The underscores on the sample screen indicate the positions of 'negative' attributes (blank fields).

## Options

### ACquired

CICS is in session with the logical unit represented by the terminal.

**Note:** You can reset this value by overtyping it with a different value.

### ATi

The terminal is available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

### AUtopageable

Pages after the first in a series are written to the terminal automatically.

**Note:** You can reset this value by overtyping it with a different value.

### CRreate (VTAM only)

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request.

**Note:** You can reset this value by overtyping it with a different value.

### Inservice (not MRO or APPC)

The terminal is available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

**Note:** You can reset this value by overtyping it with a different value.

### Netname

indicates that this panel relates to a NETNAME inquiry.

### NOAti

The terminal is not available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

### Notes:

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

### NOCcreate (VTAM only)

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

**Note:** Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.

### NOTi

This terminal cannot be used by transactions that are initiated from this terminal.

### Notes:

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.
3. A terminal cannot be defined with both NOATI and NOTTI.

### Outservice (not MRO or APPC)

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is

not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session, the connection is set OUTSERVICE if there are no allocatable sessions left.

**Note:** You can reset this value by overtyping it with a different value.

**PAgeable**

Pages after the first in a series are written to the terminal on request from the operator.

**Note:** You can reset this value by overtyping it with a different value.

**PRiority(value)**

displays a 3-character string indicating the priority of this terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value is in the range 0–255, where 255 is the highest priority.

**Note:** You can reset this value by overtyping it with a different value.

**RELeased**

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

**Note:** You can reset this value by overtyping it with a different value.

**REMotesystem(value)**

displays the 4-character name of the remote system in which the program is to execute.

**TERminal(value)**

displays a 4-character terminal identifier (1–4 characters) as specified in an installed terminal definition.

**TRansaction(value)**

displays a 4-character string indicating the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

**TTi**

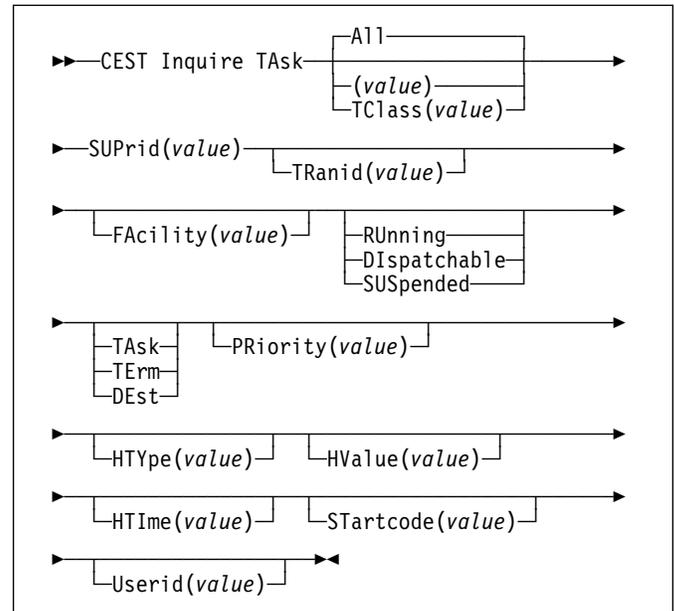
This terminal can be used by transactions that are initiated from this terminal.

**Notes:**

1. You can reset this value by overtyping it with a different value.
2. TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.

## CEST INQUIRE TASK

Retrieve information about user tasks.



### Context

INQUIRE TASK returns information about user tasks. Only information about user tasks can be displayed or changed; information about CICS-generated system tasks or subtasks cannot be displayed or changed. System tasks are those tasks started (and used internally) by CICS, and not as a result of a user transaction.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST INQUIRE TASK SUPRID(xx) (the minimum abbreviation is CEST I TA S(xx)). You get a display that lists the current status.
- Type CEST INQUIRE TASK SUPRID(xx) (CEST I TA S(xx)) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter cemt i ta s(xx) ru, the resulting display will show you the details of only those tasks that are running.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see "Overtyping a display" on page 35).
- Use the CEST SET TASK command (see page 140).

## CEST INQUIRE TASK

All is the default.

### TClass(value)

is the 8-character transaction class name to which the transaction belongs.

### SUPrid(value)

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

### (value)

is the CICS-generated task number, in the range 1–99999.

You cannot specify a list of identifiers, nor can you use the symbols \* and + to specify a family of tasks.

## Examples

```
CEST IN TASK
STATUS: RESULTS - OVERTYPE TO MODIFY
Tas(0000073) Tra(CEST) Fac(S205) Run Ter Pri( 255 ) ___
```

Figure 70. CEST INQUIRE TASK screen

**Note:** The underscore on the sample screen indicates the position of a 'negative' attribute (blank field).

The full range of keywords associated with this command is always displayed if the request is made from the VSE console. For other terminals, because of the large number of keywords supported, only one line of information for each result is displayed. The full set of keywords usually requires three lines on a screen and is displayed only if you specifically select them by typing a ? in front of the chosen result. You get a display of all the keyword information in addition to the expanded SET syntax. However, the following keywords are not shown: USERID, if the user is not signed on, and HTIME, HTYPE, and HVALUE if the task is not suspended at the time of the inquiry. When shown, they are abbreviated: Hva for HVALUE and Hty for HTYPE, for example. Only one ? is honored for each ENTER input.

```
IN TA
SYNTAX OF SET COMMAND
Tas(0000029) Tra(CEST) Fac(S202) Run Ter Iso Pri( 255 ) ___
Sta(TO)
Use(CICSUSER) Rec('A7C562C66585B122')
CEST Set TAsk() | < A11 >
< Priority() >
< Purge | Forcepurge >
```

Figure 71. CEST INQUIRE TASK screen—full keywords

## Options

### DEst

The task was initiated by a destination trigger level as defined in the destination control table (DCT).

### Dispatchable

The task is dispatchable.

### FAcility(value)

displays a 4-character string identifying the name of the terminal or queue that initiated the task. If no FACILITY value is displayed, the task was started without a facility.

### HTime(value)

displays the time (in seconds) that the task has been in the current suspended state.

### HType(value)

displays the reason why the task is suspended. A null value indicates that there is no hold-up, except for the necessity of reaching the head of the queue.

For information about the resource types that can appear in this option, and how they can be used as an aid to problem determination, see the *CICS Problem Determination Guide*.

### HValue(value)

displays HTYPE. HVALUE can be a resource name, such as a file name, or a value such as a TCLASS value.

For information on the values that can appear in this operand, and how they can be used as an aid to problem determination, see the *CICS Problem Determination Guide*.

### PRiority(value)

displays the priority of the task, in the range 0–255 where 255 is the highest priority.

### RUnning

The task is running.

### STartcode(value)

displays how this task was started. The values are:

- D** A distributed program link (DPL) request. The program cannot issue I/O requests against its principal facility or any syncpoint requests.
- DS** A distributed program link (DPL) request, as for code D, with the exception that the program can issue syncpoint requests.
- QD** A transient data trigger level was reached.
- S** Start command (no data)
- SD** Start command (with data)
- TO** The operator typed a transaction code at the terminal.
- TP** The transaction was started by presetting the transaction ID for the terminal.
- U** User-attached task.

### SUSpended

The task is suspended.

**TAsk**

The task was initiated from another task.

**TErm**

The task was initiated from a terminal.

**TRanid(value)**

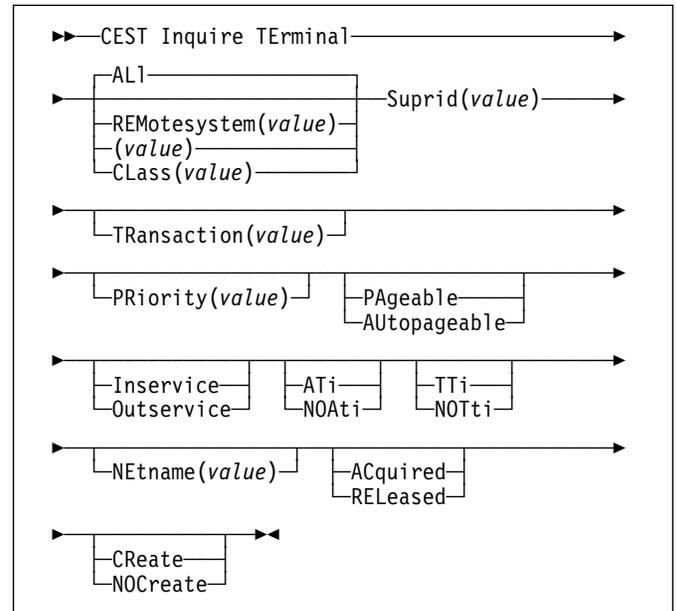
displays a 4-character string identifying the transaction name associated with the task.

**Userid(value)**

displays the user currently associated with the task.

**CEST INQUIRE TERMINAL**

Retrieve information about terminals.



**Context**

INQUIRE TERMINAL returns information about a named terminal defined in the terminal control table (TCT).

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session that has been generated by the CEDA transaction.

If you are familiar with network names, you may prefer to use the command that uses these names. See "CEMT INQUIRE NETNAME" on page 59.

The message "TEMP OUT SERVICE" can be displayed if recovery is in progress for the terminal. The "TEMP OUT SERVICE" indicator is reset by simply refreshing the screen, or by overtyping the "INS" field with "INS" or "OUT". If "TEMP OUT SERVICE" continues to be displayed, the cause of the indicator should be investigated.

## CEST INQUIRE TERMINAL

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST INQUIRE TERMINAL SUPRID(xx) (the minimum abbreviation is CEST I TE S(xx)). You get a display that lists the current status.
- Type CEST INQUIRE TERMINAL SUPRID(xx) (CEST I TE S(xx)) followed by as many of the other attributes as are necessary to limit the range of information that you require. So, for example, if you enter `cemt i te i at`, the resulting display will show you the details of only those terminals that are in service and available for use.

To change various attributes, you can:

- Overtyping your changes on the INQUIRE screen after tabbing to the appropriate field (see “Overtyping a display” on page 35).
- Use the CEST SET TERMINAL command (see page 141).

#### ALI

is the default. For example, if you inquire about terminals, you receive information about all terminals, unless you specify a terminal identifier, a terminal class identifier, or a system identifier.

#### (value)

is a terminal identifier (1–4 characters) as specified in an installed terminal definition. This includes all terminals and sessions, but not logical device codes (LDCs), model TCTTEs, mode groups, or system entries. See also **Netname**.

If the terminal name is, for example, S201, this option is coded thus:

```
CEST INQUIRE TERMINAL(S201)
```

#### Class(value)

is the 1- or 2-character suffix of a terminal list table (TLT).

#### Suprid(value)

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

If you do not specify a termid or class identifier, by default you receive information about all the terminals.

### Examples

```
CEST IN TERMINAL
STATUS: RESULTS - OVERTYPE TO MODIFY
Ter(CERR) Pri( 000 ) Pag Ins Tti
Ter(S205) Tra(CEST) Pri( 000 ) Pag Ins ATi Tti
Net(IGKS205 ) Acq
```

Figure 72. CEST INQUIRE TERMINAL screen

**Note:** The underscores on the sample screen indicate the positions of ‘negative’ attributes (blank fields).

### Options

#### ACquired (VTAM only)

CICS is in session with the logical unit represented by the terminal.

#### ATi (VTAM only)

The terminal is available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

**Note:** You can reset this value by overtyping it with a different value.

#### AUtopageable

Pages after the first in a series are written to the terminal automatically.

**Note:** You can reset this value by overtyping it with a different value.

#### CReate (VTAM only)

If the terminal is not in session, CICS acquires it if it is needed to satisfy an ATI request.

**Note:** You can reset this value by overtyping it with a different value.

#### Inservice (not MRO or APPC)

The terminal is available for use. For VTAM, Ins(ervice) means that the terminal can be ACQUIRED.

**Note:** You can reset this value by overtyping it with a different value.

#### NEtname(value)

displays an 8-character string indicating the name by which this terminal or session is known to VTAM. This is blanks if the access method is not VTAM.

For parallel sessions, the Net(name) is not unique, so CICS returns the name of the first session that it finds into the Ter(minal) field.

#### NOAti (VTAM only)

The terminal is not available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

#### Notes:

1. Because this is a ‘negative’ attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. A terminal cannot be defined with both NOATI and NOTTI.

**NOCreate (VTAM only)**

If the terminal is not in session, CICS does not acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

**Note:** You can reset this value by overtyping it with a different value.

**NOTti (VTAM only)**

This terminal cannot be used by transactions that are initiated from this terminal.

**Notes:**

1. Because this is a 'negative' attribute, the field appears blank. You can, however, tab to this field and overtype it with a different value.
2. TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.
3. A terminal cannot be defined with both NOATI and NOTTI.

**Outservice (not MRO or APPC)**

The terminal is not available for use. Setting a terminal Out(service) means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal Out(service) also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session, the connection is set Out(service) if there are no allocatable sessions left.

**Note:** You can reset this value by overtyping it with a different value.

**PAgeable**

Pages after the first in a series are written to the terminal on request from the operator.

**Note:** You can reset this value by overtyping it with a different value.

**PRiority(value) (VTAM only)**

displays a 3-character string identifying the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities.

**Note:** You can reset this value by overtyping it with a different value.

The value is in the range 0–255, where 255 is the highest priority.

**RELeased (VTAM only)**

CICS is not in session with the logical unit represented by the terminal. If you set this option to RELEASED, a session is terminated immediately if you also specify the PURGE option, otherwise the session is terminated when the current active transaction finishes.

**Note:** You can reset this value by overtyping it with a different value.

**REMOtesystem(value)**

displays the 4-character name of the remote system in which the program is to execute.

**TERminal**

indicates that this panel relates to a TERMINAL inquiry.

**TRansaction(value)**

displays a 4-character string identifying the name of the transaction currently being processed with this terminal as its principal facility or as a secondary facility.

**TTi (VTAM only)**

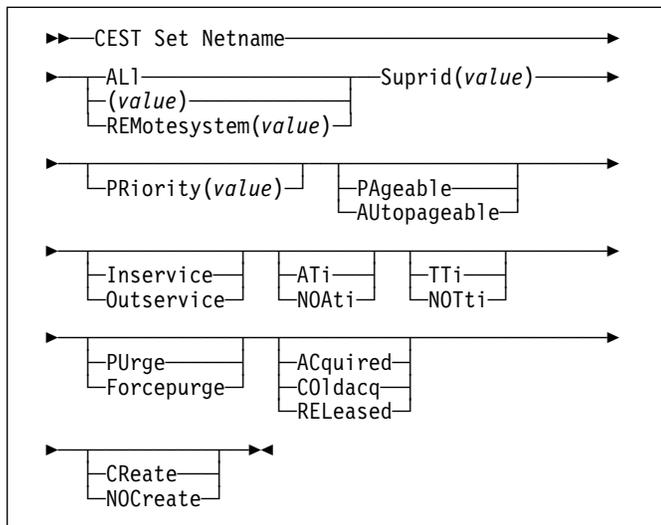
This terminal can be used by transactions that are initiated from this terminal.

**Notes:**

1. You can reset this value by overtyping it with a different value.
2. TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.

## CEST SET NETNAME

Change the status of networks.



### Context

If you are familiar with network names, you may prefer to use this command as an alternative to CEST SET TERMINAL (described under “CEMT SET TERMINAL” on page 118).

“netname” (VTAM only) is the name by which the remote system or terminal is known to the network. The remaining operands for NETNAME are identical to those for TERMINAL.

Netnames need not be unique, and you cannot specify a list of names.

### Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST SET NETNAME SUPRID(xx) (the minimum abbreviation is CEST S N S(xx)) with netname or ALL. You get a display that lists the current status, similar to that obtained by CEST INQUIRE NETNAME. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEST SET NETNAME SUPRID(xx) (CEST S AUTO S(xx)) with netname or ALL, followed by one or more attribute settings that you wish to change. For example, cemt s n(netname) s(xx) i at will reset the named remote system or terminal to inservice and available for use.

Typing ? at the beginning of any display line gives a syntax prompt. Resetting the values takes effect immediately.

### Options

#### (value) (VTAM only)

specifies the name by which the remote terminal is known to the network.

#### ACquired (VTAM only)

CICS is in session with the logical unit represented by the terminal.

#### ALI

specifies that any changes you request are made to all resources of the specified type that you are authorized to access.

#### ATi

The terminal is available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

#### AUtopageable

Pages after the first in a series are to be written to the terminal automatically.

#### COldacq (VTAM only)

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

#### CReate (VTAM only)

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request.

#### Forcepurge

All transactions running with this terminal are immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

#### Inservice (not MRO or APPC)

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

#### NOAti

The terminal is not available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

**Note:** A terminal cannot be defined with both NOATI and NOTTI.

#### NOCreat (VTAM only)

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by,

for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

**NOTti**

This terminal cannot be used by transactions that are initiated from this terminal.

**Notes:**

1. A terminal cannot be defined with both NOATI and NOTTI.
2. TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.

**Outservice (not MRO or APPC)**

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

**PAgeable**

Pages after the first in a series are to be written to the terminal only if you request them to be.

**PRiority(value)**

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

**PUrge**

Tasks running on this terminal are abnormally terminated, but task termination occurs only if system integrity can be maintained.

**RELeased (VTAM only)**

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

**REMOtesystem(value)**

specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals

referred to by the request to those ISC or IRC sessions connected to the specified system.

**Suprid(value)**

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

**TTi**

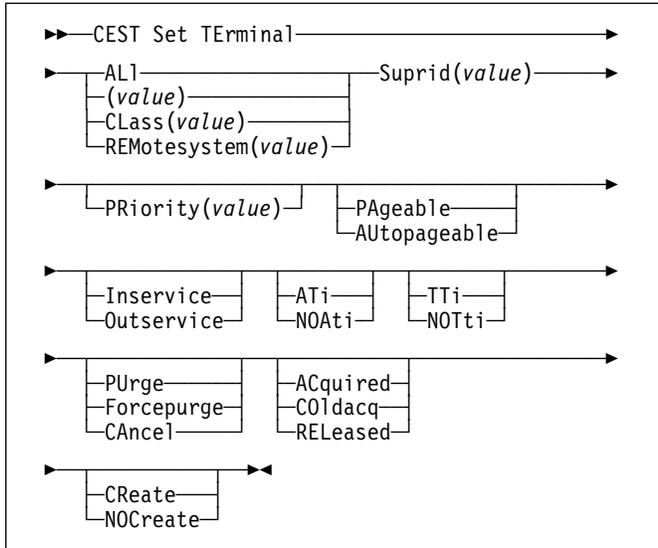
This terminal can be used by transactions that are initiated from this terminal.

**Note:** TTI/NOTTI cannot be specified for APPC terminals or IRC sessions.



## CEST SET TERMINAL

Change the attributes of named terminals.



### Context

The SET TERMINAL command changes some of the values of a named terminal defined in the terminal control table (TCT). It cannot be used for APPC sessions.

In an SNA environment, a terminal is the CICS representation of an SNA logical unit with which CICS can be in communication. (SNA environment means that CICS is using VTAM as the access method for communication with SNA logical units.)

This logical unit can be:

- A physical terminal (such as a 3277)
- A function of a cluster controller (such as a 3790 Type 2 batch function)
- An intersystem communication (ISC) or interregion communication (IRC) session.

If you are familiar with network names, you may prefer to use the command that uses these names. See “CEMT SET NETNAME” on page 106.

The message “TEMP OUT SERVICE” can be displayed if recovery is in progress for the terminal. The “TEMP OUT SERVICE” indicator is reset by simply refreshing the screen, or by overtyping the “INS” field with “INS” or “OUT”. If “TEMP OUT SERVICE” continues to be displayed, the cause of the indicator should be investigated.

## Description

Press the Clear key to clear the screen. There are two ways of commencing this transaction:

- Type CEST SET TERMINAL SUPRID(xx) (the minimum abbreviation is CEST S TE S(xx)) with (value), CLASS(value), or ALL. You get a display that lists the current status, similar to that obtained by CEST INQUIRE TERMINAL. You can then tab to the highlighted or blank fields and overtype them with the required values.
- Type CEST SET TERMINAL SUPRID(xx) (CEST S TE S(xx)) with (value), CLASS(value), or ALL, followed by one or more attribute settings that you wish to change. For example, `cemt s te(value) s(xx) i cr` specifies that a named terminal is available for use (inservice) and that it can be acquired automatically by ATI transactions (create).

Typing ? at the beginning of the first line gives a syntax prompt. Resetting the values takes effect immediately.

## Options

### (value)

A terminal identifier (1–4 characters) as specified in an installed terminal definition.

If the terminal name is, for example, S201, this option is coded thus:

```
CEST SET TERMINAL(S201)
```

### ACquired (VTAM only)

CICS is in session with the logical unit represented by the terminal.

### ALl

Any changes you request are made to all resources of the specified type that you are authorized to access.

### ATi (VTAM only)

The terminal is available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

### AUtopageable (VTAM only)

Pages after the first in a series are to be written to the terminal automatically.

### CAnce1

AIDs queuing for the specified connection are canceled.

AIDs representing scheduled and allocated requests waiting in the local CICS system for the specified connection are canceled. However, TD AIDs with an associated triggered task already started are not canceled. Message DFHTF0100 is written to CSMT to indicate how many AIDs have been deleted for the terminal and how many remain.

## CEST SET TERMINAL

### **CLass(value)**

The 1- or 2-character suffix of a terminal list table (TLT).

### **COldacq (VTAM only)**

This is a special form of ACQUIRED, where no resynchronization is required. If the previous session abended, the use of COLDACQ overrides CICS integrity control. This could lead to integrity problems. Also, you should check the CSMT log for an activity keypoint after the restart of a session following a CICS failure. If there is no activity keypoint, you should issue COLDACQ again after the next emergency restart.

### **CReate (VTAM only)**

If the terminal is not in session, CICS is to acquire it if it is needed to satisfy an ATI request.

### **Forcepurge**

Any transaction running with this terminal is immediately terminated abnormally. Data integrity is not guaranteed. In some extreme cases (for example, if an error occurs during backout processing), CICS might terminate abnormally.

### **Inservice (not MRO or APPC)**

The terminal is available for use. For VTAM, INSERVICE means that the terminal can be ACQUIRED.

### **NOAti (VTAM only)**

The terminal is not available for use by transactions that are automatically initiated from within CICS, or, if the terminal is an ISC session, by transactions that are using this session as an alternate facility to communicate with another system.

**Note:** A terminal cannot be defined with both NOATI and NOTTI.

### **NOCreate (VTAM only)**

If the terminal is not in session, CICS is not to acquire it to satisfy an ATI request. A session must be started by, for example, a logon request or a CEST SET TERMINAL ACQUIRED command before the ATI request can be satisfied.

If NOCREATE is set for an LU6.1 ISC session and there are no allocatable sessions left, the connection is placed OUTSERVICE.

### **NOTi**

This terminal cannot be used by transactions that are initiated from this terminal.

**Note:** A terminal cannot be defined with both NOATI and NOTTI.

### **Outservice (not MRO or APPC)**

The terminal is not available for use. Setting a terminal OUTSERVICE means that the terminal can no longer be used by transactions. If PURGE or FORCEPURGE is also specified, any transaction using the terminal is terminated abnormally. If PURGE or FORCEPURGE is not specified, the transaction is allowed to terminate normally, but no further transactions are allowed to use the terminal. For VTAM, setting a terminal

OUTSERVICE also causes it to be released and the operator to be signed off, either immediately or when the current transaction has terminated.

In an LU6.1 ISC session the connection is set OUTSERVICE if there are no allocatable sessions left.

### **PAgeable (VTAM only)**

Pages after the first in a series are to be written to the terminal only if you request them to be.

### **PRiority(value) (VTAM only)**

specifies the priority of a terminal relative to other terminals. The priority of a task is the sum of the transaction priority, the terminal priority, and the operator priority. Priority has no meaning for terminals that are ISC sessions being used as alternative facilities. The value must be in the range 0–255, where 255 is the highest priority.

### **PUrge**

Any transaction running with this terminal is purged only if system and data integrity can be maintained.

### **RELEased**

CICS is not in session with the logical unit represented by the terminal. Setting a terminal RELEASED causes the session to be terminated. Running transactions are allowed to finish unless PURGE or FORCEPURGE is also specified.

### **REMotesystem(value)**

specifies an identifier (1–4 characters) defined in the CICS terminal definition. This limits the terminals referred to by the request to those ISC or IRC sessions connected to the specified system.

### **Suprid(value)**

specifies the 1- or 2-character suffix of a terminal list table, identifying the supervisor invoking the transaction.

### **TTi**

This terminal can be used by transactions that are initiated from this terminal.

## Chapter 14. CETR—trace control

Use CETR to control CICS tracing activity.

Start the transaction by typing CETR on the command line of your display, as follows:

### CETR

Press the ENTER key.

You get the following display, with the values of your own system in each of the fields.

```

CETR                      CICS Trace Control Facility          CICS IYAHZCCV
Type in your choices.

Item                      Choice      Possible choices
Internal Trace Status     ==>>>  STARTED  STArtd, STOpped
Internal Trace Table Size ==>>>  100      16K - 1048576K
Auxiliary Trace Status   ==>>>  STOPPED  STArtd, STOpped, Paused
Auxiliary Trace Dataset  ==>>>  B        A, B
Auxiliary Switch Status  ==>>>  NO       NO, NExt, All
Master System Trace Flag ==>>>  ON       ON, OFF
Master User Trace Flag   ==>>>  ON       ON, OFF

When finished, press ENTER.

PF1=Help   3=Quit   4=Components   5=Ter/Trn   9=Error List
    
```

Figure 73. CETR transaction: initial screen

Any of the input fields can be overtyped with the new values that you require. When you press ENTER, CETR issues the necessary commands to set the new values. If there are any errors, PF9 can be pressed to display the error messages. If there is only one short error message, it appears near the bottom of this display.

The following table shows the relationships between the auxiliary trace status, trace flag, and trace data set.

| Table 6. The meanings of auxiliary trace status values |                      |                          |
|--|----------------------|--------------------------|
| Auxiliary tracing status                               | Auxiliary trace flag | Auxiliary trace data set |
| Started  | On                   | Open                     |
| Paused   | Off                  | Open                     |
| Stopped  | Off                  | Closed                   |

Two other main functions of CETR are:

1. Setting the component trace options (press PF4)
2. Setting the transaction and terminal trace options (press PF5).

For information about the use of the various CETR options as an aid to problem determination, see the *CICS Problem Determination Guide*.

## Component trace options

The “Component Trace Options” display is produced by pressing PF4 on the main CETR display. You get the following display, with the values of your own system in each of the fields.

```

CETR                      Component Trace Options          CI41 IYAHZCCV
Over-type where required and press ENTER.          PAGE 1 OF 3
Component Standard                      Special
-----
AP      1-2                              1-2
BF      1                                1
BM      1                                1
CP      1-2                              1-2
DC      1                                1
DD      ALL                              1-2
DI      1                                1
DM      ALL                              1-2
DS      ALL                              1-2
DU      ALL                              1-2
EI      1-2                              1-2
FC      1-2                              1-2
GC      ALL                              1-2
IC      1-2                              1
IS      1-2                              1-2
JC      1                                1
KC      1                                1

PF: 1=Help   3=Quit   7=Back 8=Forward 9=Messages ENTER=Change
    
```

Figure 74. CETR transaction: component trace options screen

PF7 and PF8 can be used to scroll backward and forward through the list of components. PF9 gives the error message list.

The trace levels for a particular component are represented by two values. One gives the active level of tracing for standard tracing; the other gives the level for special tracing. From the list of components, you can set the active level of tracing for standard and/or special tracing for each individual component. See the *CICS Problem Determination Guide* for an explanation of standard and special tracing, and of tracing levels.

The values are in the range 1 through 32 for most components. In practice, you will normally want to use an active level of ‘1’ for any component, and you do this by overtyping (if necessary) the displayed value under the relevant heading for the required component.

In certain circumstances, if you have referred a problem to the IBM System Support Center staff, they may ask you to get a level ‘2’ trace. You will need to specify both level 1 and 2 to get all of the trace points that are needed.

You can specify a range of tracing levels—normally levels ‘1’ and ‘2’. You do this by overtyping the displayed value with ‘1-2’ or ‘1,2’.

Alternatively, you can type ‘ALL’ in upper or lower case under the relevant heading. Similarly, you can type ‘OFF’ to turn off the tracing for a particular component under either the ‘special’ or ‘standard’ heading.

## CETR—trace control

The equal sign “=” can be used, when changing several fields, to indicate that a particular field should be changed to the same value as the one above.

The complete list of components is:

| Component | Title                               |
|-----------|-------------------------------------|
| AP        | Application domain                  |
| BF*       | Built-in function support           |
| BM*       | BMS                                 |
| CP*       | Common Programming Interface        |
| DC*       | Dump macro-compatibility            |
| DD        | Directory manager domain            |
| DI*       | Data interchange                    |
| DM        | Domain manager domain               |
| DS        | Dispatcher domain                   |
| DU        | Dump domain                         |
| EI*       | Exec interface                      |
| FC*       | File control                        |
| GC        | Global catalog domain               |
| IC*       | Interval control                    |
| IS*       | Intersystem communication and MRO   |
| JC*       | Journal control                     |
| KC*       | Task control macro-compatibility    |
| KE        | Kernel                              |
| LC        | Local catalog domain                |
| LD        | Loader domain                       |
| LM        | Lock manager domain                 |
| ME        | Message domain                      |
| MN        | Monitoring domain                   |
| PA        | Parameter manager domain            |
| PC*       | Program control                     |
| PG        | Program manager domain              |
| RC*       | Report Controller                   |
| SC*       | Storage control macro-compatibility |
| SM        | Storage manager domain              |
| SP*       | Syncpoint                           |
| ST        | Statistics domain                   |
| SZ        | Front End Programming Interface     |
| TC*       | Terminal control                    |
| TD*       | Transient data                      |
| TI        | Timer domain                        |
| TR        | Trace domain                        |
| TS*       | Temporary storage                   |
| UE*       | User exit control                   |
| US        | User domain                         |
| XM        | Transaction manager                 |
| XS        | Security manager domain             |

For information about the use of trace for problem determination, and for information about the format of trace entries, see the *CICS Problem Determination Guide*.

### Notes:

1. Components marked \* are subcomponents of the AP domain, and the trace entries for these components are produced with a trace point ID of AP nnnn.
2. The SZ component can be used only if the Front End Programming Interface feature (FEPI) is installed. For information, see the *CICS Front End Programming Interface User's Guide*.
3. If CETR is used to turn on tracing for a particular component, CICS does not save modifications to the component trace flags across any kind of CICS restart.

## Transaction and terminal-related trace options

The “Transaction and Terminal Trace” display is produced by pressing PF5 on the main CETR display. It can be used to set STANDARD, SPECIAL, or SUPPRESSED tracing for particular CICS tasks. This is done by setting the appropriate value for the transaction ID used to start the task, or for the terminal from which the task is to be run. Note that SUPPRESSED cannot be set for terminals, only for transaction IDs. The required terminal can also be specified by using its netname.

Setting SPECIAL tracing for a particular transaction means that the SPECIAL flags for each component (as defined on the “Component Trace Options” display) is used to decide whether a particular trace entry is to be made at any given point in the process of the task.

The display layout is as follows:

```
CETR                Transaction and Terminal Trace                CI41 IYAHZCCV
Type in your choices.
Item                Choice                Possible choices
Transaction ID      ====>                Any valid 4 character ID
Transaction Status  ====>                SStandard, SPecial, SUppressed
Terminal ID         ====>                Any valid Terminal ID
Netname             ====>                Any valid Netname
Terminal Status     ====>                SStandard, SPecial
Terminal ZCP Trace  ====>                ON, OFF
When finished, press ENTER.
PF1=Help           3=Quit                9=Error List
```

Figure 75. CETR transaction: transaction and terminal trace screen

A common way of using this display is to set the terminal trace status for a particular terminal to SPECIAL, to have all of the STANDARD component trace flags as level-1 only, and the SPECIAL component trace flags as level-1 and level-2. In this way, all tasks run from the SPECIAL terminal have level-1 and level-2 tracing. All other tasks have level-1 tracing only.

For example, you can use SPECIAL tracing to trace a single transaction. You can do this by setting the “master system trace flag” OFF on the main CETR display. This turns STANDARD tracing OFF. (STANDARD tracing can also be turned off by coding SYSTR=OFF at system initialization.) You can then press PF4 for the “components trace options” screen, shown in Figure 74 on page 143, where you select the levels of tracing for the required components under the heading “Special”. Finally, on the “transaction and terminal trace” screen, shown in Figure 75, specify the transaction ID and a transaction status of SPECIAL.

This display can also be used to enable ZCP trace for specified terminal IDs or netnames. To get ZCP trace, enter the terminal identifier on the Terminal ID and enter ON for the Terminal ZCP Trace.

## HELP panels

If you press the help key (PF1), the following panels are displayed:

```

CETR                      Help: CICS Trace control facility

FUNCTION OF THE MAIN PANEL.

This panel displays the current state of CICS Internal and Auxiliary
trace and the settings of the master system and user trace
flags. The current values are obtained from the system on initial
entry and subsequently every time ENTER or a PF key is pressed.
The values can be altered by over-typing and pressing ENTER.

The APPLID of the CICS system being queried is displayed in the top
right corner of the screen.

Further help information follows:

    1. Data entry and alteration.
    2. Description of fields.
    3. Function key use on the main panel.

PF 3=End  8=Next  ENTER=End
    
```

Figure 76. CETR transaction: HELP panel (1)

```

CETR                      Help: CICS Trace control facility

(1) DATA ENTRY AND ALTERATION.

This is achieved by simply over-typing the existing data, and then
pressing ENTER.

Abbreviations may be used, provided they are not ambiguous. The minimum
possible abbreviations are listed in capitals to the right hand side of
the input fields. For example STO may be entered for STOPPED, but ST
would not be allowed as it could mean STARTED or STOPPED.

Erased or blank fields will redisplay the current level settings as
known to CICS. These will be the levels current when ENTER was last
pressed. They may have been changed from the previously displayed
values by other activity in the system.

All input will be validated when ENTER is pressed, and no internal
settings will be made until all errors have been removed.

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 77. CETR transaction: HELP panel (2)

```

CETR                      Help: CICS Trace control facility

(2) DESCRIPTION OF FIELDS.

The values that can be set from the main panel are:-

Internal Trace Status      - Whether tracing to the main storage trace
                             table is required.
Internal Trace Table Size - The size of the main storage trace table.
Auxiliary Trace Status    - Whether tracing to the current auxiliary trace
                             data set is required.
Auxiliary Trace Dataset   - The current data set. A = DFHAUXT, B = DFHBUXT.
Auxiliary Switch Status   - Whether a switch to the alternate extent is
                             required at next or all end-of-extends.
Master System Trace Flag  - This flag must be on if CICS system-requested
                             entries are to be written for STANDARD tracing
                             tasks.
Master User Trace Flag    - This flag must be on if user-requested trace
                             entries are to be produced.

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 78. CETR transaction: HELP panel (3)

```

CETR                      Help: CICS Trace control facility

(3) FUNCTION KEY USE ON THE MAIN PANEL.

Key      Name      Function
-----
ENTER    Change     Execute any changes.
PF1      Help       Display this help information.
PF3      Quit        Terminate the transaction.
PF4      Components  Display or set STANDARD or SPECIAL trace levels
                             for individual CICS components.
PF5      Ter/Trn     Query or set current trace status for terminal
                             or transaction.
PF9      Messages   Display any messages created, these can be
                             warning (informative) messages, or errors.

PF 3=End  7=Back  ENTER=End
    
```

Figure 79. CETR transaction: HELP panel (4)

## HELP panels for components

If you press the help key (PF1) while viewing the component trace options screen, the following panels are displayed:

```

CETR                      Help: CICS Component Trace

FUNCTION OF THE COMPONENT TRACE PANEL

The component trace panel is used to inquire and set the STANDARD and
SPECIAL trace levels for the individual components of the CICS system.

Every component of CICS has a number of trace points. Associated with
each is a trace level. These levels are numbers from one to thirty-two.
For the trace entry associated with the trace point to be made, the
associated level must be active (except for exception traces).

Each CICS task is either a STANDARD tracing task or a SPECIAL tracing
task. This distinction is made at task attach time when the STANDARD or
SPECIAL attributes of the terminal id and transaction id are examined.
These can be set on the Terminal and Transaction Trace panel of CETR.

Further help information follows:

    1. Data entry and alteration 1
    2. Data entry and alteration 2
    3. Meanings of Component abbreviations.
    4. Function key use on the component trace panels.

PF 3=End  8=Next  ENTER=End
    
```

Figure 80. CETR transaction: Component trace HELP panel (1)

## CETR—trace control

```

CETR          Help: CICS Component Trace

(1) DATA ENTRY AND ALTERATION 1

From this panel detailed tracing levels can be set for each component.
Each level is specified by a number between one and three, the
presence of the number indicates that the level is set, the omission
of a number indicates that the level is not set.

Multiple consecutive levels are displayed as xx-yy, where xx is the
lower of the consecutive values, and yy is the higher. For example,
if 1-3 was displayed, then trace levels 1,2 and 3 would all be set.

There is more than one page of components. Function keys PF7 and PF8
can be used in the usual way to switch pages. The page may only be
switched when the displayed page contains no errors.

Changes to the level settings are automatically validated when the
current page is changed, but these levels are only set within CICS when
ENTER is pressed. Until this time it is possible to quit from the
program (PF3) without altering internal values.

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 81. CETR transaction: Component trace HELP panel (2)

```

CETR          Help: CICS Component Trace

(4) MEANINGS OF COMPONENT ABBREVIATIONS.

TS . . . Temporary storage
UE . . . User exit interface
US . . . User domain
XM . . . Transaction manager
XS . . . Security domain

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 84. CETR transaction: Component trace HELP panel (5)

```

CETR          Help: CICS Component Trace

(2) DATA ENTRY AND ALTERATION 2

The level settings may be changed by simply over-typing the existing
data and then pressing ENTER.

To set a single level enter the number. To set consecutive levels
enter the first and last levels separated by a hyphen.

Erased or blank fields will redisplay the current level settings as
known to CICS. These will be the levels set when ENTER was last pressed.

All levels may be set by entering ALL and none by entering OFF.

To provide identical level settings for more than one component:
- type the setting(s) for the first component, do not press ENTER.
- type = in fields where you want this setting duplicated.

NOTE: Although levels up to 32 may be set for most components, only
levels 1,2 and 3 are currently used.

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 82. CETR transaction: Component trace HELP panel (3)

```

CETR          Help: CICS Component Trace

(5) FUNCTION KEY USE ON THE COMPONENT TRACE PANELS.

Key      Name      Function

ENTER    Change     Execute any Changes.
PF1      Help       Display this help information.
PF3      Quit        Return to main Trace Control panel.
PF7      Backward   Scroll backward one page.
PF8      Forward    Scroll forward one page.
PF9      Messages   Display any messages created,
                        these can be warning
                        (informative) messages, or errors.

PF 3=End  7=Back  ENTER=End
    
```

Figure 85. CETR transaction: Component trace HELP panel (6)

```

CETR          Help: CICS Component Trace

(3) MEANINGS OF COMPONENT ABBREVIATIONS.

AP . . . Application domain          LC . . . Local Catalog domain
BF . . . Built-in function          LD . . . Loader domain
BM . . . Basic Mapping Support      LM . . . Lock manager
CP . . . CPI-C interface            ME . . . Message domain
DC . . . Dump compatibility layer    MN . . . Monitoring domain
DD . . . Directory manager          PA . . . Parameter manager domain
DI . . . Batch data interchange     PC . . . Program control
DM . . . Domain manager domain      PG . . . Program manager
DS . . . Dispatcher domain          RC . . . Report controller
DU . . . Dump domain                SC . . . Storage control
EI . . . Exec interface              SM . . . Storage Manager domain
FC . . . File control                SP . . . Sync point
GC . . . Global Catalog domain      ST . . . Statistics domain
IC . . . Interval control            SZ . . . Front End Prog Interface
IS . . . ISC                         TC . . . Terminal control
JC . . . Journal control             TD . . . Transient data
KC . . . Task control                TI . . . Timer domain
KE . . . Kernel                      TR . . . Trace domain

PF 3=End  7=Back  8=Next  ENTER=End
    
```

Figure 83. CETR transaction: Component trace HELP panel (4)

## HELP panels for terminal and transaction trace

If you press the help key (PF1) while viewing the terminal and transaction trace screen, the following panels are displayed:

```

CETR          Help: CICS Terminal and Transaction Trace

FUNCTION OF THE TERMINAL AND TRANSACTION PANEL.

This panel has two main functions.

(1) To allow STANDARD/SPECIAL tracing to be set for tasks to be run from
particular terminals or with particular transaction ids. It is also
possible to suppress tracing for particular transaction ids.
STANDARD tracing tasks use the STANDARD component flags.
SPECIAL tracing tasks use the SPECIAL component flags.
See the help information for the component panel for more detail.

(2) To allow the setting of ZCP tracing.

The current settings will be displayed if transaction id, terminal id
or netname are specified without other values.

Further help information follows:
1. ZCP trace.
2. Function key use on the terminal and transaction panel.

PF 3=End  8=Next  ENTER=End
    
```

Figure 86. CETR transaction: Terminal and transaction HELP panel (1)

```

CETR                Help: CICS Terminal and Transaction Trace
(1) ZCP TRACE

ZCP trace is the activate scan trace facility. Turning it on
for a particular terminal means that the activate scan routine
of the terminal control program (DFHZCP) will start to monitor
the activate scan queue for the Terminal Control Table Terminal
Entry (TCTTE) for that terminal.

When the TCTTE is found, indicating that there is activity on the
terminal, a trace entry is made for the activate scan ZCP routine.

PF 3=End  7=Back  8=Next  ENTER=End

```

Figure 87. CETR transaction: Terminal and transaction HELP panel (2)

```

CETR                Help: CICS Terminal and Transaction Trace
(2) FUNCTION KEY USE ON THE TERMINAL AND TRANSACTION PANEL.

Key   Name      Function
-----
ENTER Change      Execute any Changes.
PF1   Help       Display this help information.
PF3   Quit       Return to main Trace Control panel.
PF9   Messages   Display any messages created.

PF 3=End  7=Back  ENTER=End

```

Figure 88. CETR transaction: Terminal and transaction HELP panel (3)



## Chapter 15. CMMSG—message switching

Use CMMSG to send messages from your terminal to one or more destinations.

The destination may be:

- Another terminal
- Another terminal, but only when a specified operator is signed on at that terminal
- Another terminal, but only when the operator signed on at that terminal is in a specified class
- Another operator (CICS locates the operator, if currently signed on, and sends the message to that operator's terminal)
- All terminals
- All terminals with operators signed on in specified classes
- Any combination of these destinations.

You can specify that the message is to be sent at some future time. If the message cannot be sent, your terminal is notified.

In addition, standard routing lists can be provided using the terminal list table (TLT), which can include terminal and operator identifiers. Multiple routing lists can be specified at the time the message is entered, and individual destinations can be deleted from, or added to, the lists at this time.

CICS message switching is provided by a service program invoked by a user-defined transaction identifier that must be defined to CICS. This transaction identifier can be CMMSG or any user-defined 4-character transaction identifier. CMMSG is the transaction identifier assumed throughout this book.

You can extend message switching to include predefined messages and even complete message-switching transaction input formats.

The terminals from which message switching is initiated, and all terminals of message destinations, must support BMS.

Routed messages can be directed to a terminal, including the transaction terminal, that supports partitions. However, such messages reset the terminal to "base" state.

### Sending a message

To send a message to another terminal or terminals, enter the transaction identifier, CMMSG, followed by the applicable options, as shown in the syntax diagram on page 152.

Full details of the options are given under "CMMSG command options" on page 152.

After entering CMMSG, you must include at least the message text, a destination (ROUTE, or OPCLASS, or both), and the option SEND (which you can abbreviate to S). For example:

```
CMMSG 'GOOD MORNING',R=ALL,S
```

sends the message 'GOOD MORNING' to all terminals.

If all is well, your message is sent, and the response

```
MESSAGE HAS BEEN ROUTED
```

is returned to your terminal.

This response is received for the normal completion of a message-switching transaction. It means that the message has been successfully routed to its destination but does not reflect any delivery status.

You can use backspace characters in your input.

New-line characters (or carriage returns on a hard-copy terminal) that are not part of the message are changed to commas, unless they appear at the beginning or end of the input, in which case they are deleted. In this way, you can use NL characters as option separators, instead of commas. For example, on a display device, you could enter:

```
CMMSG R=(T001,T002)#
T=1500#
'THE TIME IS 1500 HOURS'#
S@
```

where the ENTER key.

You can enter the options, except SEND and CANCEL (one of which must be entered last), in any order after CMMSG and one or more spaces. You can abbreviate every option, except CANCEL, to a single character, and you can include one or more options in a single input. If you specify two or more options, you must follow each by a comma, except the last, which must be followed by a space or by an end-of-data (EOD) condition indicating the end of your input. Any data following a space in the same input is ignored.

To mark the end of a single input:

- Press the ENTER key on display devices such as the IBM 3270
- Press carriage return for hardcopy terminals such as the IBM 2741.

To maintain the conversation with a terminal, the status of all inputs, except the final input which includes the SEND option, is saved in a single temporary-storage record.

A message-switching transaction remains conversational until ended. This means that all input (even other transaction identifiers) is passed to the message-switching program. You must end a message-switching transaction (possibly involving multiple inputs) before you can start a different transaction.

## CMSG—message switching

### Canceling a message

You can cancel your current message-switching transaction by entering:

- CANCEL as the last 6 characters of your input. You get the response:

```
TERMINATED BY OPERATOR.
```

- CMSG as your first 4 characters, followed by end-of-data (EOD). You get the response:

```
NO INPUT - REENTER.
```

- CMSGx as your first 5 characters, where x is any character other than a space or a C. You get the response:

```
SPACE MUST FOLLOW TRANSID.
```

- CMSG as your first 4 characters followed by a space and EOD. This starts a new message-switching transaction. You get the response:

```
CONTINUE INPUT.
```

The first three examples in this list terminate the conversation and allow you to enter other transactions.

### Message-switching continuation

The message-switching transaction appears to be conversational. Internally, a new task is created to process each message switching input.

If a task requires more information to complete the transaction, the current status of the transaction is saved in temporary storage, a response is sent to your terminal, and the task terminates with a requirement that the next task started be a message-switching task.

The saving of status replaces any previously saved status for any message-switching transaction from that terminal.

If a message-switching transaction completes successfully, or you have canceled it, an appropriate response is sent to your terminal, the status of the transaction is not saved, and the task terminates with no transaction restart specified. The saved status is always used by a message-switching task to continue a conversational input from your terminal. You can recall the saved status by entering the transaction identifier to which you have added C (for example CMSGC). You can include additional input, but it must follow CMSGC with no intervening spaces.

This method is useful because you can enter CANCEL to bypass errors in the current input and yet not allow the conversation to continue. You can then enter, for example CMSGC and then enter EOD, which puts the terminal in the conversation that prevailed at the time of the most recent input that has not been canceled or has not resulted in a message being routed. At this point you could also add an option if desired, for example CMSGCT=1030. (Note that

there are no spaces between the transaction identifier, the C, or the following data.)

For example, enter:

```
CMSG R=(T40,T41)
```

and you receive:

```
R OK CONTINUE INPUT,  
T=1500  
RT OK CONTINUE INPUT  
'THERE WILL BE ..... AT THE  
RT OK CONTINUE MSG  
MAIN NIO;FOMH PM VS;OGPTMOS SBR, CANCEL (see Note)  
TERMINATED BY OPERATOR  
MSGCMAIN BUILDING ON CALIFORNIA AVENUE  
RT OK CONTINUE MSG  
IN ROOM 407',SEND  
MRTS OK MESSAGE HAS BEEN ROUTED
```

**Note:** You can cancel and reenter instead of trying to correct the input. This terminates the entire transaction. To save the previously entered input, enter CMSGC to restart at the previously saved status point and continue the message.

Your terminal is free between a message-switching response and the next input, and if it is in TRANSCEIVE status, an automatically initiated task can be started on your terminal before you can continue the message-switching transaction.

Upon completion of this new task, even if it required a response from you, the message-switching transaction continues as if nothing had intervened. However, if you receive a response indicating that the intervening task has issued a RETURN, you must enter the transaction identifier followed by C to force continuation of the previous message-switching transaction.

### Message delivery

You can deliver a message to a destination if the following conditions are met:

- The specified delivery time has been reached
- The terminal is INSERVICE, and either:
  - The opid of the operator signed-on matches the requested opid if specified in the ROUTE option
  - or
  - The class of the operator signed-on matches any class specified by the OPCLASS option.

The processing and paging status of a terminal, which also affects delivery of eligible messages, is initially specified on the CEDA DEFINE TYPETERM command. You can change the status using the CEMT, CEST, and CEOT transactions.

When the processing status is RECEIVE or TRANSCEIVE, a message is sent automatically to the terminal when no transaction is attached to it.

When the processing status is TRANSACTION, you must request message delivery by entering a paging command, see Chapter 18, "CSPG—page retrieval" on page 169.

A message is formed into one or more “pages”, the size of which is predefined for a destination by the system programmer. The terminal processing status determines the delivery of the first or only page of a message. Succeeding pages, if any, are sent according to the paging status of the terminal as defined by the system programmer.

When the terminal is in PAGE status, you must request succeeding pages through a paging command.

When the terminal is in AUTOPAGE status, the complete message is printed.

---

## Subsystems and terminal systems

With the exception of any specific details relating to the ROUTE option (see page 154), all other information on the use of the following subsystems in message switching is given in the appropriate IBM subsystem guides:

IBM 3600 Finance Communication System (VTAM), SC33-0233

IBM 3650 Retail Store System, SC33-0234

IBM 3770 Data Communication System, SC33-0235

IBM 3790 Communication System, SC33-0236.

## IBM 3270 display devices

The responses to 3270 family display devices are designed to fit on a single 40-character line of a Model 1 display. To provide more space for the response, the indicators that precede the response do not have the spaces between them that appear on non-3270 terminals.

Responses to the 3270 family display devices do not erase what is displayed on the screen and are displayed in the last 40 character positions of the line.

After a message-switching transaction has been started, you can press the CLEAR key if you want to continue from an empty screen. A CLEAR/CANCEL OR CONT xxxxx response is displayed, where xxxxx is either INPUT, ROUTE, or MSG. You can continue the transaction or, if you press the CLEAR key a second consecutive time, you can cancel the transaction. A better method of erasing the screen is to press the ERASE INPUT key, because this does not cause an interaction with the processor.

Because positions on the screen that are not keyed are not received, you can position and display data on the screen in various ways. For example, you can start each option on a new line of the display screen. You must include a comma between consecutive options. Also, if you want to start a new line within the message text you should enter a field mark character to indicate the end of the current line. All field mark characters within a message (including the first character of the message) are interpreted as NL characters (there is no corresponding key on 3270 family display devices) and cause correct positioning of the message on all other terminals.

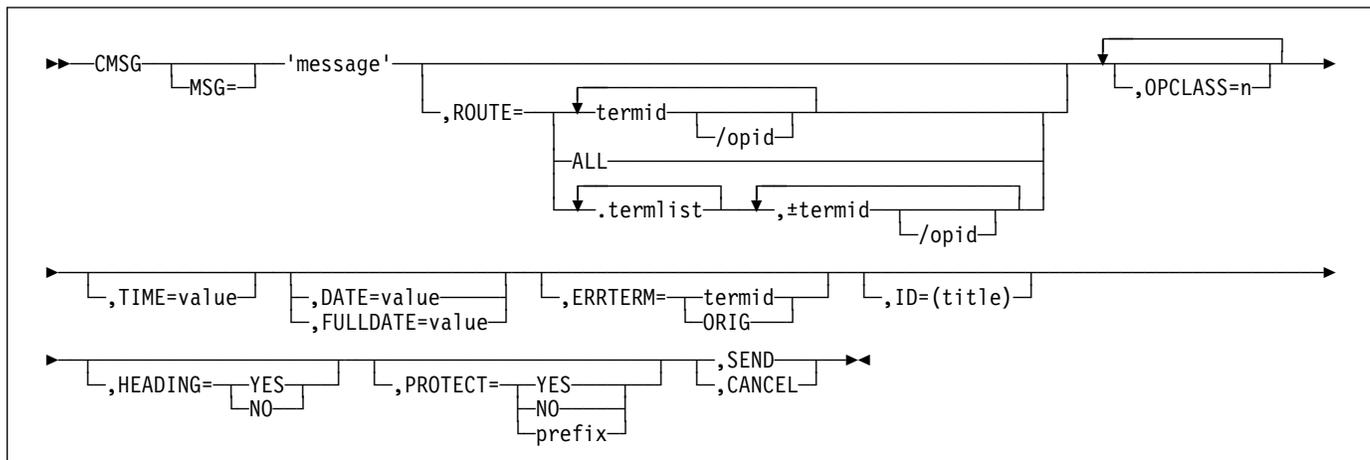
## IBM 3767 Communication Terminal

The keyboard/printer unit of the 3767 is eligible for entering and receiving messages.

## Sequential terminal

On a sequential (SAM) terminal, the CMSG message-switching facility remains conversational until a message-switching transaction is completed or canceled. Variable conditions requiring a response, such as operators not being signed on, can be handled easily from an interactive terminal. These conditions, however, cannot always be anticipated, and the message-switching task continues reading input and issuing error messages until a valid response is received. It is possible that an entire sequential input stream could be consumed in such a process. You are advised to ensure that a CMSG CANCEL record appears in the sequential input following each message-switching transaction that could possibly require an unanticipated reply. This is strongly recommended following the final message-switching transaction.

## Command syntax



## CMMSG command options

The message-switching options are listed below. Except for CANCEL, you can specify the first letter of each option instead of the entire option.

### CANCEL

Specifies that the current input is to be ignored and institutes a **non**-conversational status between the terminal and the message-switching transaction. CANCEL must be the last 6 characters of the input. CANCEL is also effective within a message.

### DATE=value

The date on which you want your message to be delivered. It can be specified in any of the following forms:

- yy.ddd** year (00–99) and day (001–366).
- mm/dd** month (01–12) and day (01–31).
- mm/dd/yy** month (01–12), day (01–31), and year (00–99).
- +d** number of days (0–4).

The first three of these forms provide ways of specifying absolute dates, with the year (where used) in a 2-digit format. For example, if the current system date is in the year 1998, then January 31 1998 could be specified as 98.031, 01/31/98, or 01/31. In this last case, the year of the current system date is assumed to be the year for delivery of the message.

(If DATFORM=DDMMYY was specified in the CICS system initialization parameters, enter the second and third of these as dd/mm or dd/mm/yy.)

If you want to specify an absolute date with the year in a 4-digit format, then use the FULLDATE parameter.

The fourth form allows you to specify a number of days from today. For example, a value of DATE=+3 means that the message is to be transmitted 3 days from today. The number must be in the range 0–4.

DATE=+d entries are not allowed between 2330 and 0030, (to avoid confusion at or near midnight). If you use this form of the command within 30 minutes of midnight, the following error message is issued:

```
+DATE INVLD FROM 2330 to 0030
```

You can also specify a time for message delivery using the TIME= option, which is described on page 156. The effects of TIME= and DATE= together are as follows:

- If you specify neither a time nor a date, the message is transmitted as soon as the receiving terminal is free.
- If you specify a time but no date, the message is transmitted at the specified time today. For example, if the time now is 09.00 and you specify TIME=0930, or TIME=+30, the message is transmitted at 09.30 today.
- If you specify a date but no time, the message is transmitted at the current time on the specified date. For example, if the time now is 10.30 and you specify DATE=+2, the message is transmitted at 10.30 in two days' time.
- If you specify both a date and a time, the message is transmitted at the specified time on the specified date. For example, if you specify DATE=07/29/98 and TIME=1130, the message is transmitted at 11.30 on 07/29/98.

### Notes:

1. In all cases, the delivery time that you request must be less than 100 hours from the beginning of the current day. This means that the delivery time can never be later than 03.59 on the fourth day from the current day.
2. When processing date options entered in the form yy.ddd, mm/dd/yy, and dd/mm/yy, CMMSG operates a 'sliding 50 year window' to establish whether the year is in this or the next century. The two digit year is initially assumed to be in the same century

as the current date. If this assumed year is more than 50 years in the past or more than 50 years ahead, it is adjusted accordingly. For example, if today's date is the 31st December 1998, the following DATE options are handled as follows:

- DATE=99.001 is initially assumed to be the year 1999. Since it is within 50 years of the system year, the year 1999 is determined to be the delivery date for the message.
- DATE=00.001 is initially assumed to be the year 1900. Since this year is more than 50 years ago, the delivery date is established as the year 2000.

In both of the above examples, the delivery date is not accepted and the message 'DATE TOO FAR IN FUTURE' is displayed.

3. The FULLDATE operand allows a four digit year to be specified as an absolute value, and removes any possible ambiguity when using the DATE operand.

### ERRTERM

"termid" is the identifier of the terminal to which notification is to be sent if the message is purged because it is undeliverable.

ORIG is a way of specifying the identifier of the originating terminal.

**Note:** A message is considered undeliverable to a destination if it cannot be delivered within a specified interval after the requested delivery time. This interval is specified by the system programmer. If no interval is specified, no action is taken for undelivered messages, and the ERRTERM option has no effect.

If PRGDLAY is specified in the system initialization table (DFHSIT), the transient data destination CSMT is notified of the number of undeliverable messages purged for a terminal. In addition, if ERRTERM is entered, the specified terminal is notified of the message number, title identifier, and destination of the message.

### FULLDATE

The FULLDATE option is similar to the DATE option, but it requires a four-digit year to be entered. It specifies the date on which you want your message to be delivered. It can be specified in any of the following forms:

**yyyy.ddd** year(0000-9999) and day (001-366)

**mm/dd/yyyy** month(01-12), day (01-31), and year(0000-9999)

**mm/dd** month(01-12) and day (01-31)

**+d** number of days (0-4)

The first three of these forms provide ways of specifying absolute dates, with the year (where used) in a 4-digit format. For example, if the current system date is in the year 1997, December 31 1997 could be specified as 1997.365, 12/31/1997 or 12/31. In this last case, the year of the current system date is assumed to be the

year for delivery of the message. (If DATFORM=DDMMYY was specified in the CICS system initialization parameters, enter the second and third of these as dd/mm/yy or dd/mm).

The fourth form allows you to specify a number of days from today. For example, a value of FULLDATE=+3 (or F=+3) means that the message is to be transmitted 3 days from today. The number must be in the range 0-4. FULLDATE=+d entries are not accepted when the system time of day is between 2330 and 0030, (to avoid confusion at or near midnight). If you use this form of the command within 30 minutes of midnight, the following error message is issued:

+DATE INVLD FROM 2330 to 0030

You can also specify a time for message delivery using the TIME option—the effect of TIME and FULLDATE together are as follows:

- If you specify neither a time nor a date, the message is transmitted as soon as the receiving terminal is free.
- If you specify a time but no date, the message is transmitted at the specified time today. For example, if the time now is 09.00 and you specify TIME=0930, or TIME=+30, the message is transmitted at 09.30 today.
- If you specify a date but no time, the message is transmitted at the current system time on the specified date. For example, if the time is now 10.30 and you specify FULLDATE=+2, the message is scheduled for delivery at 10.30 in two days' time.
- If you specify both a date and a time, the message is scheduled for delivery at the specified time on the specified date. For example, if you specify FULLDATE=12/29/1997 and TIME=1130, the message is scheduled for delivery at 11.30 on 12/29/1997.

**Note:** Note: in all cases, the delivery time that you request must be less than 100 hours from the beginning of the current day. This means that the delivery time can never be later than 03.59 on the fourth day from the current system date. "

### HEADING

Specifies heading information. You can use H or HEADING in place of HEADING=YES.

### YES

specifies that the current time, date, and identifier of the originating terminal is to precede the message text.

### NO

causes a previous heading request to be ignored.

### ID=(title)

"title" specifies the title (maximum length 62 characters) to be associated with the message.

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See Chapter 18, “CSPG—page retrieval” on page 169 for commands to request a display of the titles of all messages queued for immediate delivery to that terminal.

### MSG=message

“message” is the text of the message to be sent. The keyword MSG and the equal sign are optional. You must enclose the text within single quotation marks. A single quotation mark to be included as part of the message must be represented by a pair of single quotation marks. The message may be continued across multiple consecutive inputs.

If the ending single quotation mark is omitted, the entire input is treated as part of the message and a request to continue the message is sent to the terminal. The entire transaction may be canceled, or alternatively, options previously entered for this transaction may be saved by entering a single quotation mark followed by a comma to terminate the MSG option. The correct message can then be reentered; the previous incorrect message being ignored.

A single quotation mark at the end of data in a MSG option means either the end of the MSG option, or the first of a pair of single quotation marks indicating that a single quotation mark is to be included as part of the message.

In this situation, the response to the terminal is:

```
CONTINUE INPUT OR MSG
```

If the first character of the next input is a single quotation mark, it is treated as the second of a pair of single quotation marks and the message is continued. Any character other than a single quotation mark causes the message to be complete, and that character is treated as the first character of a new option.

New-line (NL) characters within the message are kept. (If the first character is a new-line character, it is deleted.) This allows the operator to enter M=' and then carriage return (CR) or the equivalent of CR, to begin entering the message text at the left margin. The first CR is deleted. Additional CRs may be entered if blank lines are desired at the top of the transmitted message.

**Note:** If the HEADING option is specified, these blank lines appear between the heading (time, date, and originator’s terminal identifier) and the message.

With NL processing, the delivered message is positioned at the left margin. If an unformatted message, or a line within a formatted message, exceeds the line width defined for the receiving terminal, sentences are split between words for any line exceeded.

### OPCLASS

One or more numbers, each of which can be in the range 1–24, that define the operator classes that must be signed on before a message can be delivered. If more than one number is specified, the list must be enclosed within parentheses. For example,

OPCLASS=(8,2) causes the message to be sent to all terminals that currently have an operator of class 8 or 2 signed on, and to all terminals that have that operator security value specified in their installed definitions. If OPCLASS=1 is specified, the message is routed to all terminals that are in service, regardless of whether an operator is signed on or not.

If ROUTE is specified as well, the message is routed to all requested destinations, but is not eligible for delivery to a terminal unless the class of the operator signed on matches one of the numbers specified by OPCLASS. However, if a ROUTE destination is qualified by an operator identifier, OPCLASS is ignored for that destination. For more information about how ROUTE= and OPCLASS= are used together, see the description of the ROUTE option.

### PROTECT

Specifies message recovery for a CICS emergency restart. You can use P or PROTECT in place of PROTECT=YES.

#### YES

specifies that \$\$ is to be prefixed to the temporary storage data identifier of the stored message.

#### NO

specifies that a previous protect request is to be ignored. This is done by using the default prefix of \*\*. The same method is used to omit the option altogether.

#### prefix

specifies a 1-or 2-character prefix to be used for the temporary-storage data identifier of the stored message. If a single character only is specified, a \$ is provided as the second character. (For example, PROTECT=T causes a prefix of T\$.)

If this option is omitted, a default prefix of \*\* is used. \*\* is also the default for user application programs issuing BMS message requests where no protection is specified (REQID option omitted).

A temporary-storage table (TST) entry is needed for each prefix specified in the PROTECT option so that message recovery is effective for that prefix.

### ROUTE

Specifies the destinations to receive the message. For routing messages to 3600, 3770 (batch), or 3790 (batch) terminals, see “Examples of 3600 and 3770 batch destinations” on page 157.

#### termid

is the identifier or identifiers of the terminals to which the message is to be routed. For example, ROUTE=(LA04,OL,SF2) routes the message to the three terminals with the identifiers LA04, OL, and SF2. If routing is performed to several terminals of the same device and map suffixes, CICS processes

the message identically for all of them and the most restricting page size prevailing is used.

The length of the terminal identifier specified in a message-switching transaction must be in the range 1–4 characters, and must not contain any of the following characters:

- / slash
- ,
- ) right parenthesis
- ( left parenthesis
- + plus sign
- minus sign
- \* asterisk
- blank.

**Note:** A single message can be delivered more than once to the same terminal. For example, the instruction ROUTE=(T001,T001) causes two transmissions of a single message to terminal T001. If the destination terminal is in TRANSCEIVE status, the message appears consecutively at the terminal. If the terminal is in TRANSACTION status, the operator must request delivery of the message.

**/opid**

is a 1-to 3-character operator identifier preceded by a slash. The message is routed to the first terminal at which an operator with that identifier is currently signed on. For example, ROUTE=/PJ routes the message to the first terminal found (and only the first) with the operator identifier PJ currently signed on. If no such terminal is found, the sending operator is notified. The operator identifier that you specify must not contain any of the following characters:

- ,
- ) right parenthesis
- space.

**termid/opid**

is a terminal identifier qualified by an operator identifier to restrict the message delivery to the specified operator at the terminal location. For example, ROUTE=(LA04,OL/LBS,SF2) routes the message to terminals LA04 and SF2. The message is routed to terminal OL only if the operator whose identifier is LBS is signed on at that terminal.

ROUTE=(T001,T001/OP1,/OP1) causes the same message to be delivered three times to the same destination if the operator OP1 is signed on at T001.

**ALL**

causes the message to be broadcast to all terminals.

There is a variable limit on the number of terminals to which a message can be sent. This limit depends on a combination of factors. Significant factors are the types of terminal in use, the number of each type, and the length of message sent. The CMMSG transaction is abended with an abend code of ABMC if the limit is exceeded.

**Note:** If a CMMSG ROUTE=ALL is issued to a large number of terminals, a task for each terminal is initiated up to the MAXTASK value. Because the tasks are single threaded, they are suspended and can give rise to an SOS condition. For guidance about avoiding this, see the *CICS Performance Guide*.

**.termlist**

is a 1-or 2-character terminal list table (TLT) suffix preceded by a period. For example, .H3 identifies the terminal list table DFHTLTH3. A maximum of 10 terminal lists can be specified, and the terminal lists that you specify are merged together. The entries in the terminal lists contain terminal identifiers, or operator identifiers, or both. Duplicate entries within a single TLT are kept, though entries that are duplicated among the lists are deleted. (Entries are considered duplicate if each has the same terminal identifier and operator identifier.)

Here are two examples that show the effects of merging TLTs that contain duplicate entries. For these examples, assume that terminal list table DFHTLTL1 contains T001 twice, and that DFHTLTL2 contains T001 and T001/OP1.

- If you specify ROUTE=(.L1,.L2), all entries from DFHTLTL1 are included as destinations. Duplicate entries within DFHTLTL1 are kept. All entries from DFHTLTL2 are checked for duplicates against the entries in the previously specified DFHTLTL1 and, if a duplicate is found, it is not repeated.

The resulting destination list is T001, T001, T001/OP1.

- The order in which you specify the TLTs is significant. If you specify R=(.L2,.L1), the DFHTLTL2 entries T001 and T001/OP1 are included in the destination list. However, the two entries for T001 in DFHTLTL1 are not included because T001 is already in DFHTLTL2. In this case, the resulting destination list is T001, T001/OP1.

**(±termid/opid,...)**

A +termid/opid adds the specified destination (if not a duplicate) to the destinations contained in the requested TLT. A –termid/opid deletes the specified destination from the requested TLT. A –termid, without an opid, deletes all destinations of that terminal (with or without operator identifier) resulting from the requested TLT. + or –termid/opid

parameters affect only those entries that result from requested TLTs, and have no effect on other + or – termid/opid parameters in the same request. All TLT suffixes must be entered before any + or – parameters.

Here are some examples that show the effects of specifying both TLTs that contain duplicate entries and ± entries. For these examples, assume that terminal list table DFHTLT1 contains T001 twice, and that DFHTLT2 contains T001 and T001/OP1.

- **ROUTE=(.L1,.L2,+T001)** has the same effect as **R=(.L1,.L2)**. The entry +T001 is not added, because it is a duplicate of an entry from DFHTLT1. The resulting destination is T001, T001, T001/OP1.
- **ROUTE=(.L1,.L2,+T001/OP1,-T001)** does not add +T001/OP1 because it is a duplicate of an entry in DFHTLT2. The -T001 causes all entries from TLTs that refer to T001 (regardless of whether they are qualified by an operator identifier) to be deleted. The message ALL ROUTE ENTRIES DELETED is issued.  
If DFHTLT2 did not contain the entry T001/OP1, the +T001/OP1 instruction would cause that entry to be added to the destination list. The -T001 instruction would not then delete the T001/OP1 entry from the list, because the effects of the + and – instructions are not cumulative: they act in isolation on the original concatenated TLTs.
- **ROUTE=(.L1,.L2,-T001,+T001/OP1)**; the -T001 causes all entries from the TLTs that refer to T001 (including the T001/OP1 entry in DFHTLT2) to be deleted. The +T001/OP1 entry is then added and becomes the only resulting destination. There is no duplicate because it has just been deleted.

A ROUTE option may be divided across multiple consecutive inputs. However, if it refers to a TLT, it must be completed in the same input in which it was started. An individual ROUTE parameter (termid/opid) may not be split across two inputs.

When both ROUTE and OPCLASS are specified together, OPCLASS further restricts the message transmission. For example, **ROUTE=(LA04/PJL,/MGK,OL)**, **OPCLASS=4** routes the message to terminal LA04 if the operator whose identifier is PJL is signed on. The message is also sent to the first terminal with the operator whose identifier is MGK signed on. An operator whose class is 4 must be signed on to OL before the message can be routed there. Note that the OPCLASS value is acted on only when no operator identifier is specified.

### SEND

Specifies that all of the options have been entered and that the message is to be routed. SEND is the final option and must be followed by a space or an end-of-data.

### TIME=value

“value” is the time at which you want the message to be delivered. You can specify the time in one of the following four ways:

**hhmm** where “hhmm” is an absolute time in the range 0001–2400. For example, **TIME=1145** causes the message to be transmitted at 11.45 am. The minutes value must be less than 60.

**+hhmm** where “hhmm” is the number of hours and minutes from the current time. The minutes value must be less than 60. For example, **TIME=+0720** means that the message is to be transmitted in 7 hours and 20 minutes from now. A value of **TIME=+2400** means the same as **DATE=+1**.

**+mm** where “mm” is the number of minutes from the current time. This value must be in the range 0–99. So, for example, a value of **TIME=+75** causes the message to be transmitted 1 hour and 15 minutes from now. The values **TIME=+90** and **TIME=+0130** both cause the message to be transmitted in 90 minutes time.

**+m** where “m” is the number of minutes from the current time. This value must be in the range 0–9. So, for example, a value of **TIME=+5** causes the message to be transmitted 5 minutes from now.

If you specify a delivery time on the current day that falls within the past hour, it is interpreted as a request for immediate delivery. An earlier time than that is considered already passed and is treated as an error. The following message is issued:

```
TIME ALREADY PASSED
```

Note that, if the current time is 00.15, **T=2345** is interpreted as 23.45 today because there has been a change of date. The message is not therefore transmitted immediately.

## Logical unit destinations

This section describes the use of the CMMSG transaction to send messages to logical units. For details of message handling within CICS subsystems, and of the use of the message-switching transaction at subsystem terminals, see the appropriate IBM subsystem guide.

Each logical unit in a CICS-SNA network is identified by a single terminal identifier and, if the logical unit is capable of receiving message text, messages may be routed to it in the same way as they are routed to non-SNA terminals. Routing by operator identifier may also be employed if the logical unit

supports operator signon, and SNA and non-SNA destinations may be specified in the same ROUTE option.

The destination for a message sent to a logical unit can be a display or printer device, or it can be a data set or an application program in a subsystem controller. To the message sender, the destination behaves like a “terminal”, and any necessary formatting is performed by the CMMSG transaction or within the subsystem controller itself.

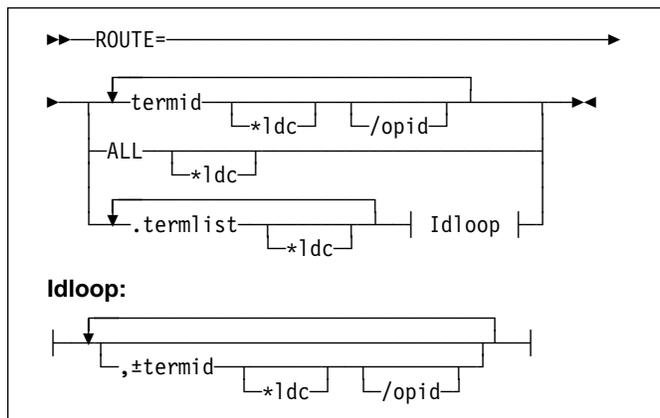
### Logical device codes

Some types of logical unit (LU) can be used to get access to more than one resource within a subsystem. For example, data sent to a 3601 LU may be intended for an IBM 3604 Keyboard Display, an IBM 3618 Administrative Line Printer, or some other element of the IBM 3600 Finance Communication System. The facility provided by CICS to permit destination selection within LUs of this type is the logical device code (LDC).

The LUs that support destination selection by LDC are:

- 3601 LU
- 3770 batch LU
- 3770 batch data interchange LU
- 3790 batch data interchange LU.

For the user of the message-switching transaction, the LDC is a 2-character mnemonic code whose meaning is defined by the CICS installation. It may be used to qualify an LU destination by including it in the ROUTE option in the syntax diagram that follows:



where:

#### \*ldc

is a 2-character LDC mnemonic preceded by an asterisk (\*) that qualifies the destinations. The \*ldc parameter may qualify an LU identifier (termid), a general broadcast (ALL), or a terminal list table specification (.termlist). The \*ldc parameter applies only to LUs, not to any start-stop or BSC terminals.

Different LDC mnemonics may be included in one ROUTE option specification; however, all destinations for one message must indicate the same device type.

#### termid\*ldc

associates an LDC mnemonic with an LU identification.

#### ALL\*ldc

is a general broadcast to all terminals with the same LDC mnemonic qualifying all LUs.

#### .termlist\*ldc

qualifies all entries in this terminal list table with the specified LDC mnemonic. This overrides any LDC specified within the terminal list table. This LDC specification does not apply to start-stop or BSC terminals.

**Note:** This qualification of a TLT occurs before any succeeding TLTs or +/- entries are processed, see example 9 in “Examples of 3600 and 3770 batch destinations.”

#### +termid\*ldc/opid

adds a destination, if not a complete duplicate to any contained in the requested TLTs.

#### -termid\*ldc/opid

deletes duplicate destinations resulting from the requested TLTs. A -termid\*ldc, without an opid, deletes all destinations of that termid\*ldc (with or without operator identifiers) resulting from the requested TLTs. A -termid/opid, without an LDC mnemonic, deletes all destinations of that termid/opid (with or without LDC mnemonics) resulting from the requested TLTs.

If a destination is specified by /opid without termid, it becomes termid/opid, in which termid is the identifier of the first terminal or LU to which an operator with that identifier is currently signed on. If no such terminal or LU is found, the destination is not valid and the operator is notified.

### Examples of 3600 and 3770 batch destinations

These examples assume the following:

- Terminal identifiers T36n and T37n are 3600 logical units and 3770 batch logical units respectively; all others are start-stop or BSC terminals.
- LDC mnemonics DS and LP have been defined for the system and T361, T362, and T363 during resource definition.
- LDC mnemonic P1 has been defined for the system and T371, T372, and T373 during resource definition.

You can also use the TYPETERM LDCLIST attribute of RDO to define these mnemonics instead of the DFHTCT TYPE=TERMINAL macro shown.

- Terminal list table DFHTLTL3 contains entries for:

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T361\*DS  
T362\*DS/OP1  
T362\*DS/OP2  
T363  
T371\*P1  
T372\*P1/OP1  
T372\*P1/OP2  
T373  
T40.

- Terminal list table DFHTLTL4 contains entries for:

T361\*DS  
T362\*DS/OP1  
T362\*DS/OP2  
T363  
T40.

### 1. R=T361\*DS

Route message to terminal identifier T361 qualified by LDC mnemonic DS.

### 2. R=(T361\*DS,T362\*DS/OP1,T363,T371\*P1,T372\*P1/OP1,T373,T40)

Route message to:

T361 and T362 qualified by LDC mnemonic DS  
T363, using the default LDC  
T371 and T372 qualified by LDC mnemonic P1  
T373 console keyboard/printer  
T40, which is a start-stop or BSC terminal.

T362 and T372 require that an operator with identification OP1 be signed on before the message can be sent.

**Note:** The default LDC mnemonic for T363 must indicate the same device type as LDC mnemonic DS.

### 3. R=ALL\*LP

Route message to all terminals (3600, 3770 batch and interactive logical units, start-stop, and BSC) with all 3600 destinations qualified by mnemonic LP. LP is ignored for start-stop and BSC destinations.

### 4. R=.L3

Use the terminal list table DFHTLTL3 for message destinations. (This is the same as example 2, plus T362\*DS/OP2 and T372\*P1/OP2.)

### 5. R=(.L3,-T362\*DS/OP2,-T372\*P1/OP2)

This is the same as example 4, but deletes T362\*DS/OP2 and T372\*P1/OP2, so is the same result as example 2.

### 6. R=(.L3,-T362\*DS)

This is the same as example 4, but deletes all entries for T362\*DS (with or without opids). The result is T361\*DS, T363, all T37n terminals, and T40.

### 7. R=(.L3,-T362)

This is the same as example 6. -T362 deletes all entries for T362.

### 8. R=.L4\*LP

LDC mnemonic LP qualifies (overrides) all entries in DFHTLTL4. Resulting destinations are:

T361\*LP T362\*LP/OP1 T362\*LP/OP2 T363\*LP T40\*LP

**Note:** The LP mnemonic has no effect on the start-stop or BSC terminal T40.

### 9. R=(.L4\*LP,-T362\*DS)

The -T362\*DS causes no action, because the TLT destinations are qualified by LDC mnemonic LP before the additions or deletes are processed, thus causing no matching entry to delete.

### 10. R=(.L4,+T363\*LP)

Cause error message 'INVALID LDC AT T363\*LP' to be generated. LDC mnemonic LP has a different device type from LDC mnemonic DS (first 3600 destination encountered is T361\*DS). All 3600 destinations for one message must indicate the same device type. All 3770 batch logical unit destinations for one message must indicate the same device type.

### 11. R=/OP2

Route message to the first terminal or logical unit found in the CICS terminal definition with operator identifier OP2 currently signed on. If OP2 is signed on to T362, the resulting destination is T362/OP2 with the default LDC mnemonic for logical unit T362. The default is DS because it is the first LDC mnemonic defined for T362. The resulting destination is T362\*DS/OP2.

---

## Message-switching responses

Every input from the terminal receives a response. Most responses are preceded by indicators where the letters before OK represent the first character of each of the CMSG options (except CANCEL) as follows:

|   |         |
|---|---------|
| D | DATE    |
| E | ERRTERM |
| H | HEADING |
| I | ID      |
| M | MSG     |
| O | OPCLASS |
| P | PROTECT |
| R | ROUTE   |
| S | SEND    |
| T | TIME    |

These indicators identify the options that have been processed and that are currently in effect.

Errors may occur because of:

- Syntax (for example, misspelled option, unbalanced parentheses, terminal identifier more than 4 characters, invalid option separator, and message and destination not provided).
- Specification (for example, the specified terminal has not been defined to CICS).

- Operation (for example, operator not currently signed on to the system).

Syntax errors within an option cause it to be rejected by the message-switching routine. To correct a known error, reenter the option before typing the SEND keyword.

Syntax errors cause no data to be processed in that input beyond the detected error. All following data must be reentered to be included.

A specification or operation error message may be written to the terminal with an indicator that shows that the option in question has been processed and is still in effect. Two possible error messages are:

1. M OK TERMID GT 4 CHAR AT T004A

This message has been issued because the terminal identifier is greater than 4 characters. The absence of the R indicator preceding the message shows that ROUTE is not currently in effect and that the message must be reentered.

2. MRHS OK INVLD TERMINL ID T004

This message has been issued because the specified terminal is not known to CICS. The R indicator shows that ROUTE is still in effect. Operator action as a result of this type of message is either:

- A space (entry deleted)
- Termid/opid specifying a termid, or operator identifier, or both (entry changed)
- Any option (the route option or another option may be entered).

**Note:** If an option is entered, the error message is repeated unless a new ROUTE option is entered before SEND. If the incorrect entry is changed or deleted by responding with a space or termid/opid, the message is routed unless other errors are still present. These errors are indicated by another message. If an option is entered, it signifies normal entry mode in which multiple options can be entered requiring another SEND option to end the input.

The following is a list of all possible responses from the message-switching program (DFHMSP). Because of device-dependent considerations, all responses are limited to 25 characters plus the indicators.

**ALL ROUTE ENTRIES DELETED**

A space entered in reply to a incorrect destination message caused the remaining destinations to be deleted, leaving no destinations to which to route the message. This condition forces a return to normal option mode, and a ROUTE option must be reentered to provide the message destinations.

**CANCELED - TEMP STRG ERR N**

N has a value in the range 1–4.

- N=1. An error occurred on a temporary storage (TS) request. One cause of this error is that the

size of the TS record exceeds the CI (control interval) size of the TS data set.

- N=2. An error occurred on a temporary storage (TS) request. A possible cause of this response, not related to a TS problem, is a request for a TS record that does not exist. This can happen if:

- The transaction identifier is entered followed by a C. This extended transaction identifier (CMSGC) normally requests a continuation of a message-switching transaction, but no previous status information exists for this terminal. See “Message-switching continuation” on page 150.

**Note:** A CICS cold start of temporary storage causes the loss of any status saved from a previous CICS process.

- The transaction identifier is entered in lowercase on a 3270 family display device that is defined as a dual case keyboard, and for which no previous message-switching transaction status exists.

**Note:** The transaction identifier in the terminal input/output area (TIOA) is not translated. To correct this problem, enter the transaction identifier in uppercase.

N=2 also occurs when transaction routing is being used and indicates that the transaction identifier used to initiate the task is different to that specified in the CICS system definition.

- N=3. An error (most likely caused by TS) occurred on a DFHBMS TYPE=TEXTBLD request.
- N=4. An error (most likely caused by TS) occurred on a DFHBMS TYPE=PAGEOUT request.

**CLEAR/CANCL or CONT INPUT|ROUTE|MSG**

An operator on a 3270 family display device pressed the CLEAR key and the message states continue (CONT):

**INPUT**

The last option in the previous input is complete. Enter an option to continue.

**ROUTE**

The last option in the previous input is ROUTE and a closing parenthesis cannot be found. Continue entering ROUTE destinations.

**MSG**

The last option in the previous input is MSG, and a single quotation mark to end the message cannot be found, or a single quotation mark is found as the last character of the input, and might be the first of a pair of single quotation marks. If the previous input does not end with a single quotation mark, continue entering the message. If the previous input ends with a single quotation mark, enter another single quotation mark to continue the message (which causes a single quotation mark to

## CMSG—message switching

be included), or enter any option that causes the message to be considered complete.

**Note:** If the operator replies by again pressing the CLEAR key (two consecutive times) it has the same effect as entering CANCEL for the last 6 characters of the input.

### CONTINUE INPUT

A SEND option has not been processed, and a ROUTE or MSG option was not being continued. Continue by entering any option.

### CONTINUE INPUT OR MSG

The previous input ended with a single quotation mark with the MSG option being processed. This single quotation mark could specify the end of the MSG option or could be the first character of a pair of single quotation marks (signifying that a single quotation mark was to be included within the message).

If the next input starts with a single quotation mark, the message is continued with a single quotation mark included in the message. A nonpaired single quotation mark is required to end the MSG option.

If the next input starts with any character other than a single quotation mark, it is treated as the beginning of a new option and the MSG option is considered complete.

### CONTINUE MSG

The previous input ended with the MSG option being processed, but no single quotation mark ended the entered text. Continue the message.

### CONTINUE ROUTE OPERAND

The ROUTE option was being processed in the previous input and a space or an EOD was found. Continue the ROUTE option.

### DATE ALREADY PASSED

A delivery date before the current day is invalid.

### DATE INVALID AT xxxxxxxx

DATE must be in one of the following forms:

|          |   |
|----------|---|
| yy.ddd   | year (00–99) and day (001–366)                  |
| mm/dd    | month (01–12) and day (01–31)                   |
| mm/dd/yy | month (01–12), day (01–31),<br>and year (00–99) |
| D=+d     | day (0–4)                                       |

### DATE NOT xx/xx AT xxxxx

DATE must start with 2 digits followed by a slash (for month), or a period (for year). This message is issued if the third character of DATE is not a slash or a period.

#### Notes:

1. September 5, for example, must be specified as 09/05 and not as 9/5.
2. The date must be valid, not 06/31 for example.

### DATE TOO FAR IN FUTURE

Future delivery may not be specified after 0359 hours on the fourth day from the current day. The error is either:

1. D=+n, where n is greater than 4, or
2. DATE specified explicitly as being after the fourth day from the current day, or
3. A condition of DATE and TIME that exceeds the stated limit.

If conditions 1 or 2 occur, the DATE option is not in effect (the D status indicator is not present). If condition 3 occurs, both the DATE and TIME options are currently in effect (the D and T status indicators precede the message), and one or both of them must be changed to a valid delivery time or the error occurs again.

### ERRTERM INVALID AT xxxxx

An ERRTERM must be 1–4 characters.

### ERRTERM INVLD/UNSUPP xxxxx

A terminal identifier specified for the ERRTERM option does not have an entry specified in the CICS terminal definition, or it is for a terminal type not supported by BMS, and is therefore invalid. Valid replies by the operator to this are:

1. A terminal identifier or ORIG in the same format as a normal ERRTERM destination (without entering the option ERRTERM or E). The message is routed following this input unless the new ERRTERM specified is invalid. In this case, the message is repeated.
2. A space as the first character (followed by an EOB or comments). This causes the entire ERRTERM specification to be eliminated. The message is routed following this input.
3. Any option that causes a return to normal option processing mode. If another ERRTERM option is not entered to correct this condition, the same error message is repeated after SEND has been reentered.

### HEADNG NOT YES/NO AT xxxxx

A HEADING option may only be specified as follows:

```
HEADING
HEADING=YES
HEADING=NO
H
H=YES
H=NO
```

### ID OPERAND GT 62 CHARS

An ID option must be from 1–62 characters in length, and enclosed within parentheses.

### ID OPERAND MISSING (

The ID option requires the identifier to be enclosed within parentheses.

### ID PARAM MISSING OR NO )

The ID option must be from 1–62 characters in length and enclosed within parentheses.

**INVALID LDC AT xxxxxxxx**

The LDC mnemonic is not valid for the logical unit, or a previous entry contained an LDC mnemonic that indicated a different device type.

**Note:** A missing LDC mnemonic can cause this message if the default mnemonic for that station indicates a different device type than a previously indicated mnemonic (specified or defaulted).

**INVALID OPND AT xxxxxx**

An option xxxxx is invalid (possibly caused by a keying error). No data beyond this point was processed. The status indicators represent the options that are in effect.

**INVALID TBL SFX AT xxxxxx**

A terminal list table suffix must be 1 or 2 characters preceded by a period.

**INVLD OPERATR ID AT xxxxxx**

An operator identifier must be 1, 2, or 3 characters preceded by a slash.

**INVLD SEPARATOR AT xxxxxx**

The end of an option must be followed by a space, a comma (except for SEND), a carriage return (new-line character), or end of data (EOD).

**INVLD TERMINL ID xxxxx**

There is no entry in the CICS terminal definition for the terminal identifier specified for a ROUTE destination. The valid operator reply is one of the following:

1. A terminal identifier, or operator identifier, or both, in the same format as a normal termid/opid ROUTE destination (without entering the option ROUTE= or R=) that replaces the invalid destination.
2. A space as the first character, which causes the invalid destination to be deleted.
3. Any option that causes a return to normal option processing mode. If another ROUTE option is not entered, the same condition exists after the SEND option is reentered.

**Note:** 1 and 2 cause the message to be routed if the resulting destinations are valid; otherwise, another error message is issued.

**LDC NOT 2 CHARS AT xxxxxx**

The LDC mnemonic that follows the \* in the ROUTE destination must be 2 characters.

**MESSAGE HAS BEEN ROUTED**

A SEND option has been processed and the message has been routed to its destinations. This is the normal completion of a message-switching transaction.

**MSG NOT SENT - NO RECEIVER**

This condition is caused by an OPCLASS option specified without a ROUTE option and no operators, with the specified operator class, or classes, currently signed-on to terminal types supported by BMS. To

correct this situation, a new destination must be entered by the ROUTE option, or OPCLASS option, or both.

**NEED OPCLASS OR ROUTE**

The SEND option was entered without specifying any destinations for the message. To correct this situation, a destination must be entered by the ROUTE option, or OPCLASS option, or both.

**NO INPUT - REENTER**

A transaction identifier was entered followed by end-of-data (EOD), or the number of backspace characters entered caused the deletion of all the data (including the position following the transaction identification, if present). If the input does not start with the transaction identifier, the terminal remains in conversation. Otherwise, it is not in conversation.

**NO MESSAGE PROVIDED**

The SEND option was entered without specifying the message. To correct the situation, provide the message.

**NO MSG STRT QUOT AT xxxxxx**

A MSG parameter must be enclosed within single quotation marks. A single quotation mark must follow an M or MESSAGE.

**NO TRMID FOR LDC AT xxxxxx**

The destination started with an asterisk \*. A logical unit identification must precede the LDC mnemonic.

**NO TERM LIST TBL-xx**

An entry for a terminal list table with suffix xx (DFHTLTxx) was not found in the CICS system definition.

**OPCLASS NOT 1-24 AT xxxxxx**

An OPCLASS parameter must be in the range 1–24.

**OPERATORS NOT SIGNDON nnn**

The ROUTE option specified operator identifications without terminal identifiers (that is, ROUTE=/opid). nnn operator identifications are not currently signed on.

The valid reply to this is to enter one of the following:

1. A space as the first character, which deletes the nnn destinations.
2. The character D (or any other character) which causes each of the nnn destinations to be individually displayed through the message OPRTR ID NOT SIGNDON.
3. Any option that causes a return to normal option processing mode. If no further ROUTE options are entered, this same condition exists if an operator does not sign on before the SEND option is reentered.

**Note:** This message is only issued if nnn is greater than 5; otherwise, each destination is individually displayed. Reply 1 causes the message to be routed if the resulting destinations are valid; otherwise, another error message is issued.

## CMSG—message switching

### OPRTR ID NOT SIGNDON /xxx

An operator with identifier xxx, specified as a destination (entered either by the terminal operator or included as an entry in a TLT whose suffix was specified), is not currently signed on to any terminal controlled by CICS.

The valid reply to this is to enter one of the following:

- A terminal identifier, or operator identifier, or both in the same format as a normal termid/opid ROUTE destination (without entering the option ROUTE or R), which replaces this /xxx destination.
- A space as the first character, which causes the /xxx destination to be deleted.
- Any option that causes a return to normal option processing mode. If no further ROUTE options are entered, this same condition exists if an operator with identifier xxx does not sign on by the time the SEND option is reentered.

**Note:** The first two replies cause the message to be routed if the resulting destinations are valid, otherwise, another error message is issued.

### PROTECT OPND NOT 1-2 CHAR

The PREFIX option of the PROTECT option must not specify more than 2 characters.

### ROUTE INVALID AT xxxxx

A field separator entered before the first ROUTE parameter, or 2 consecutive field separators were found. Reenter a valid ROUTE option.

### SPACE MUST FOLLOW TRANSID

One or more spaces must follow the transaction identifier before the first option can start. (The character C causes a continuation from the last input preceding a normal completion or a cancelation.)

### TERMID GT 4 CHAR AT xxxxx

A terminal identifier must be 1–4 characters.

### TERMID NOT +/- AT xxxxx

All TLT suffixes must be specified before any individual destination (which must be preceded by a + or –) may be entered. A ROUTE option that specifies a TLT suffix may not be continued on a succeeding input. If a ROUTE option includes more than one parameter, it must be enclosed in parentheses.

### TERMINATED BY OPERATOR

The operator entered CANCEL as the last 6 characters of the previous input, or pressed the CLEAR key twice in succession on an IBM 3275 (or 3277) display station. The previous input is canceled and the terminal is **not** in conversational mode with CICS message switching.

### TIME ALREADY PASSED

A delivery time for the current day, more than one hour before the current time is considered already passed and is invalid.

If the message is for immediate delivery, enter T=+0, to replace the TIME option that is still in effect.

If the message is for delivery at the specified time on a future day, enter the appropriate DATE option. The specified time is still in effect.

If the message is for delivery at a different time, reenter the TIME option.

### TIME INVALID AT xxxxx

TIME must be one of the following:

**hhmm** 0001–2400 (mm<60)

**+hhmm** 0000–2400 (mm<60)

**+mm** 00–99

**+m** 0–9

where hh=hours and mm=minutes.

### TIME NOT 4 CHARS AT xxxxx

A TIME parameter must be a 4-digit number if it is not preceded by +.

### TOO MANY TBL SFX AT xxxxx

A maximum of 10 TLT suffixes may be specified.

### UNBALANCD PARENS AT xxxxx

A ROUTE or OPCLASS option started with a parenthesis but did not have one at the end, or ended with a parenthesis but did not have one at the beginning. xxxxx represents the characters near the relevant end of the option.

### UNSUP OPRT TRMNL xxxxxxxx

An operator identifier without a terminal identifier was specified as a ROUTE destination; however that operator is signed on to a terminal that is a type not supported by BMS and is, therefore, an invalid destination.

The valid reply to this is the same as for the message OPRTR ID NOT SIGNDON.

### UNSUP TERMINAL xxxxxxxx

A terminal identifier, specified as a ROUTE destination, is for a terminal type not supported by BMS and is, therefore, an invalid destination.

The valid reply to this is the same as for the message INVLD TERMINL ID.

### ZERO LENGTH MSG AT ''

A message must have at least one character enclosed in single quotation marks. A single quotation mark to be included as part of a message must be entered as two separate single quotation mark characters. A message must start with a single quotation mark and may be followed immediately by pairs of single quotation marks.

### +DATE INVLD 2330 TO 0030

A DATE=+ option is invalid from 30 minutes before to 30 minutes after midnight.

## Examples of complete message-switching transactions

Here are some typical examples of the CMMSG transaction.

In all of the examples,

**1. CMMSG R=ALL,'GOOD MORNING#TODAY IS FRIDAY FEB 1',S**

This sends a good morning message to all terminals.

**2. CMMSG 'GOOD MORNING',R=.G1,T=0900,S**

This routes a good morning message to be delivered at 0900 hours to all destinations contained in DFHTLTG1. (Locations in Eastern time zone.)

**3. CMMSG 'GOOD MORNING',R=(.G2,+CHI4),T=1000,S**

This message is for delivery at 10.00 hours to terminals in Central time zone (DFHTLTG2). Also included as a destination is termid CHI4, which was recently added but not yet included in the TLT.

**4. CMMSG 'SUPERVISORS' 'MEETING IN 5 MINUTES',O=(4,7),S**

This routes the message to all supervisors who are assigned operator class 4 or 7 and are currently signed on to CICS.

**5. CMMSG R=ALL,'NEW PRICE MODEL 402 - \$28.70',S**

This sends the price of the new model to all terminals.

**6. CMMSG 'FRED - WHAT IS CURRENT STOCK ON P/N 4837-LP4# BPK',R=BLD3,H,S**

This routes a message to BLD3 asking Fred a question and including the requestor's initials (operator identifier). A heading is included so that Fred also knows the originating termid.

**7. CMMSG 'PNO 4837-LP4, QTY 26?',R=/BPK,H,S**

This shows Fred's answer routed to the terminal at which operator identifier BPK is currently signed on.

**8. CMMSG 'BRID KADDER ARRIVING 3:15 PST. PLEASE MAKE RESERVATION# M. KRN',R=PADC,H,S**

This makes a request for a reservation for a Mr Kadder.

**9. CMMSG 'SHUTDOWN IN 5 MINUTES',R=ALL,T=1655,S**

This sends the shutdown message to all terminals.

**Note:** Examples 1, 2, 3, and 9 are possible candidates for inclusion in a sequential (SAM) terminal input stream during startup.







## Chapter 17. CSFE—terminal and system test

Use CSFE to diagnose terminal problems and software problems. This transaction is mainly intended to be used by system programmers and IBM field engineers.

Use this transaction to:

- Test your terminal
- Activate the system spooling interface trace
- Activate the terminal builder trace
- Activate any of the following: storage freeze, the storage violation trap, and the global trap/trace program exit routine.

For each of these activities, successful completion of the CSFE transaction gives you the following message:

```
DFHFE3301 Transaction complete
```

For information about the use of this transaction, see the *CICS Problem Determination Guide*.

### Terminal test

You can use CSFE to test your terminal, but only if it is one of the terminals supported by CICS.

You cannot use CSFE to test the following:

- IBM 2780 Data Transmission terminals
- IBM 3600 Finance Communication System terminals
- IBM 3614 Consumer Transaction Facility terminals
- IBM 3735 Programmable Buffered terminals
- Output-only printers (for example, printers of the IBM 3270 Information Display System).

You start the transaction by entering CSFE on the command line of the screen, as follows:

```
CSFE
```

Press the ENTER key. You get the following display:

```
DFHFE3304 Enter PRINT for character set, END to
terminate. All other data will be echoed.
```

#### PRINT

When you enter PRINT, all characters printable or capable of display at the terminal are sent to your terminal.

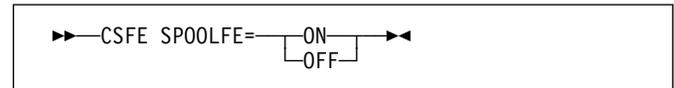
#### END

When you type END on the command line of the screen, the test ends.

Any other input is returned to your terminal (that is, it is echoed), unless it is of the form of one of the other CSFE requests.

### System spooling interface trace

You can use CSFE to request additional trace and diagnostic facilities for the system spooling interface.



#### ON

specifies that additional trace entries of system type are provided for the system spooling interface.

#### OFF

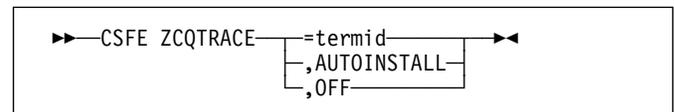
switches off the system spooling interface trace and the diagnostic facility.

#### SPOOLFE

is the system spooling interface trace and diagnostic facility.

### Terminal builder trace

You can use the CSFE transaction to activate and deactivate the terminal builder trace.



#### =termid

Switches tracing on for the terminal or connection identified by termid.

#### ,AUTOINSTALL

Switches tracing on for autoinstalled terminals.

#### ,OFF

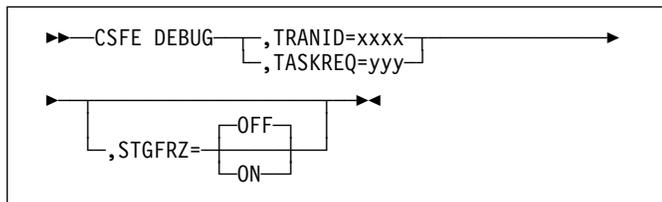
Switches tracing off for individual and autoinstalled terminals.

### Debug functions

Storage freeze, the storage violation trap and the global trap/trace exit are all debugging functions that are controlled by the CSFE transaction. These functions are described in the following sections.

## Storage freeze

You can use CSFE DEBUG to freeze storage that is normally freed during the processing of a transaction. The frozen storage is not freed until the end of the transaction. This freezing of storage can help you in the subsequent diagnosis of problems that may have occurred during processing.



You must code the options in the order shown in the syntax display above.

### ,TRANID=xxxx

Identifies the transaction for which storage freeze is to apply.

### ,TASKREQ=yyy

This is an alternative method of identifying the transaction. "yyy" is the PA or PF key definition on a 3270 display device which identifies the transaction for which storage freeze is to apply. For example, TASKREQ=PA1.

### ,STGFRZ= ON or OFF

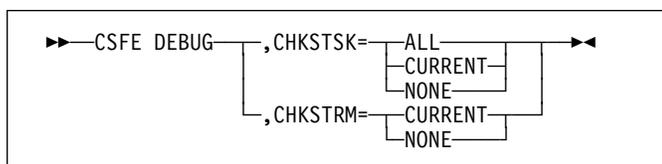
Specifies that you want the storage freeze function to be set on or off. If you omit this option, storage freeze is set to OFF by default. To improve efficiency, storage freeze should be switched OFF when not required.

## Storage violation trap

Use CSFE DEBUG to activate and deactivate the storage violation trap, which is in the trace program (DFHTRP), the exec interface program (DFHEIP), and the resource manager interface program (DFHERM).

This trap lets you verify the user storage associated with the currently active task. The storage violation trap is entered before the trace program returns to its caller after making a trace entry.

When a storage violation is detected by the trap, an exception trace entry is made, a CICS system dump is produced (if dumping has not been disabled), and the storage violation trap is switched off.



## CHKSTSK={ALL|CURRENT|NONE}

CHKSTSK has the following options:

**ALL** specifies that validity checks are to be performed on the user storage (not the CICS storage) for all tasks whenever the trace program is entered.

**CURRENT** specifies that validity checks are to be performed on the user storage (not the CICS storage) for the current task whenever the trace program is entered. Validity checks are to be performed for the currently active task, as follows:

- Validity checking of the storage chain for the task
- Validity checking of the addresses and storage accounting areas for all storage areas on the transaction storage chain.

For information on the CSFE options and their actions and uses, see the *CICS Problem Determination Guide*.

**NONE** deactivates the user storage checking function.

## CHKSTRM={CURRENT|NONE}

The terminal subpools, above and below the line, are to be checked for the CURRENT task or for NONE (no tasks).

## Global trap/trace program exit and global kernel exit

You can use CSFE DEBUG with the TRAP or GTRAP operand to activate and deactivate the global trap/trace program exit routine or the global kernel exit routine respectively.

These exits are intended to be used only under the guidance of IBM support personnel.

### TRAP={ON|OFF}

The global trap/trace program exit routine is to be activated or deactivated.

### GTRAP={ON|OFF}

The global kernel exit routine is to be activated or deactivated. On each domain call and return, and each subroutine call and return, the kernel invokes the global kernel exit routine, if it is activated.

## Chapter 18. CSPG—page retrieval

Some transactions, especially those performed on screens, produce a response that is too large to be displayed or printed at one time. The whole response is held on direct access storage, and only the first portion (called a page) is displayed. You can manipulate these pages, through basic mapping support (BMS), using the CSPG page retrieval transaction. You can use paging to view all pages of the response, in any order. All the pages produced by a transaction make up a logical message.

A page retrieval session begins when you enter the first page retrieval command, or when the first page is presented by automatic transaction initiation (ATI). During the session, CICS passes commands directly to BMS terminal paging, without following the normal transaction identification procedure.

When using BMS for IBM 3780 Communication Terminal transactions, switch off the SPACE COMPRESS EXPAND (standard feature), TRNSPCY (special feature), and the INHIBIT IRS (special feature) switches.

Pages to be manipulated with paging commands must have been created by BMS, which must be active in the system to service the commands. Paging commands enable you to:

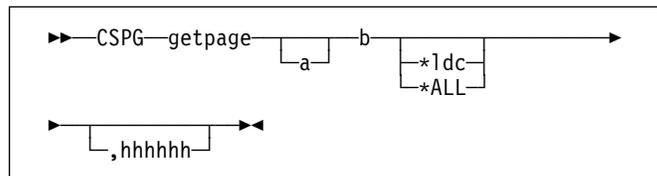
- Retrieve a page.
- Display information about logical messages queued for your terminal.
- Chain a logical message, that is, retain the previous logical message on direct access storage while you enter a new transaction.
- Purge a logical message, that is, erase it from direct access storage; a paging session must be ended by purging the message.
- Copy a page to another terminal.

You select the above functions by entering a unique identification code for each function. This code is 1–7 characters long, and is defined by the PGRET, PGCHAIN, PGPURGE, and PGCOPY system initialization parameters.

Do not use codes that are the same as the leading characters of any transaction defined in the PCT.

### Retrieve a page

The page retrieval command allows you to retrieve a specified page. If partitions are in use, the page retrieval command refers to the partition in which it has been entered (see “Page retrieval and partitions” on page 170). The syntax of the command is:



#### getpage

This is the user-defined identification code for the retrieval transaction, and is 1–7 characters long. This code is defined by the PGRET system initialization parameter. For convenience, make the code as short as possible; for example, P/.

- a** You can ignore this option unless chaining is being used. It is the level, within a chain of logical messages, of the logical message to be retrieved. You must enclose it in parentheses. It can be one of the following:

- n** message is at level n
- +n** message is n levels forward
- n** message is n levels backward
- P** previous level backward
- C** current level (the default)
- N** next level forward
- L** last level.

For more information on levels of messages, see “Message chaining” on page 171.

- b** Defines the next operation to be performed on the logical message at the current level, or at the level specified by the a option. It can be one of the following:

- n** page n
- +n** page n pages forward
- n** page n pages backward
- P** previous page
- C** redisplay current page (after clearing the screen)
- N** next page
- L** last page
- A** for an autopaging (that is, hard copy) terminal that is temporarily in paging mode: return the terminal to autopaging mode and output all remaining pages.

This is discussed further under Chapter 7, “CEMS—report controller (MT operator)” on page 31.

- X** enter data that is not recognized as a paging command.

This is discussed further under “Single keystroke retrieval (SKR)” on page 170.

## CSPG—page retrieval

### \*Idc

Is the LDC for the device to which you want to send the message. (See “Page retrieval for logical devices.”)

### \*ALL

A special case of \*Idc.

### hhhhh

Is the 6-digit hexadecimal identifier of an undelivered logical message to be retrieved. You would normally determine this identifier by entering a page query command (see “Display information about logical messages” on page 171).

If you do not specify an identifier, the oldest message is retrieved. After a paging session has started, you can omit hhhhh because all subsequent pages are from the current message.

In the following examples, P/ is the page retrieval transaction identifier:

**P/7** Retrieve page 7 of this message.

**P/N** Retrieve next page (following the one being displayed) of this message.

**P/(N)9** Retrieve page 9 of the next message (of several that have been chained).

## Single keystroke retrieval (SKR)

If you use a 3270 display device under BTAM or VTAM, you can use PA or PF keys, as defined in the SKRxxxx system initialization parameter, to enter page retrieval commands, and greatly reduce the number of keystrokes necessary in a page retrieval session.

After the session has ended, the PA and PF keys can again be used for initiating transactions in the usual way. The *CICS System Definition Guide* gives further information on this topic.

If the PL/X command is defined using the single-key retrieval facility, CSPG takes the following actions when the specified key is entered:

1. If OPERPURGE has not been specified for the currently displayed message, the current message (and all logical messages chained to it) are purged. If OPERPURGE has been specified, the operator is prompted to enter a message termination command.
2. After message termination (when possible), the data and the PF key entered are used to initiate the next transaction. Consequently, if the PF (or PA) key associated with the PL/X command has also been defined in the TASKREQ option of the transaction, then that transaction will be initiated.

## Page retrieval for logical devices

Your application program can send messages to a communication system such as the IBM 3600. Your application program can also send different pages to each of the logical devices within the system. These pages must be grouped as a single logical message, held in storage.

Each part of a logical message is accompanied by a logical device code (LDC) that identifies its destination. When retrieving the pages for a logical device, you must specify the LDC for that device. However, you do not need to do this if the user-written program in the logical device controller provides a default LDC mnemonic.

If you specify the page number and \*Idc, delivery begins with the specified page for that logical device. If the logical device is in AUTOPAGE status, all pages for that logical device, starting with the requested page, are written. If the logical device is in PAGE status, only the specified page is written.

If you omit \*Idc, and the application program in the logical device does not provide a default, BMS selects the first page destined for a logical device that is currently in PAGE status. The application program in the logical unit should provide a default LDC, because pages may be delivered to logical devices other than those you originally specified.

In either case, if your request is the first request for a page from a logical message, all pages (within the logical message) destined for logical devices currently in AUTOPAGE status are delivered after the first or specified page is delivered to a device in PAGE status.

The `getpageA` command supports an \*Idc specification for nonrouted messages created for a 3601 logical unit. The various forms of `getpageA` are interpreted as follows:

- `getpageA*ALL`—resets to autopaging and delivers all pages for the logical devices that have autpage specified in the terminal definition, but that were temporarily placed in page status by the CICS application programmer.
- `getpageA*Idc`—resets the specified logical device to autpage and delivers the pages for that \*Idc. The command is similar to `getpageA*ALL`, except that it operates only for the specified logical device.
- `getpageA`—resets to autpage and delivers the remaining pages for the logical device for which pages are currently being displayed.

## Page retrieval and partitions

The page retrieval commands, including any PA and PF keys used in single keystroke retrieval, refer to the partition in which they are entered. For example, P/N means ‘retrieve the next page for this partition’. The partition in which the last paging command is entered is the *current partition*. A paging command for a partitioned message entered on a

nonpartitioned screen (that is, after CLEAR) refers to the current partition.

After a transition from base (unpartitioned) state to partitioned state, or a change of partition set (that is, the initial page display, a page display following CLEAR, or following a change in the level of page chaining), the *current page* is displayed in each partition. The current page is initially the first page for that partition. It is updated by page retrieval commands.

---

## Display information about logical messages

This command displays the message identifiers and titles of logical messages queued for this terminal.

```
getpageQ
```

### getpage

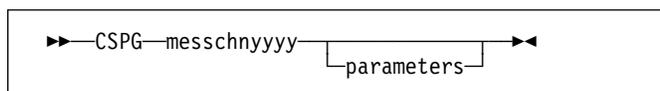
The user-defined identification code for the retrieval transaction, and is 1–7 characters long. The PGRET system initialization parameter defines this code.

**Q** (Query). The identifiers of all logical messages destined for this terminal are displayed. If the message is security protected (that is, if it has been routed to a specific operator ID or operator class), its identifier is displayed only if the operator ID or class for the operator signed on matches that in the message. The identifier consists of a 6-digit hexadecimal number, a 2-character temporary-storage prefix, and optionally, a title. The 6-digit hexadecimal number can be used as the hhhhhh option in the page retrieval command (see “Retrieve a page” on page 169) to retrieve pages for this display.

---

## Message chaining

Usually, when you have viewed the output pages from a transaction, there is no need to retain the pages. However, you might want to initiate a new transaction and still retain the old pages, so that you can view them again after you have displayed output from the new transaction. This is called *message chaining* and can be done using the following command:



### messchn

The installation-defined message-chaining transaction identification code (for example, C/), as defined in the PGCHAIN system initialization parameter.

### yyyy

The identifier of a transaction that produces data to be added to the message chain.

### parameters

The parameters, if any, required by transaction yyyy.

If the new transaction uses terminal control, or BMS in TERMINAL mode, its output is displayed immediately. When the new transaction terminates, anything else you enter is interpreted as a paging command for the first message. For example:

### TRAN

The transaction invokes an application program that produces multiple pages of output. The first page is displayed.

### P/2

The second page of message is displayed.

**C/CEMT INQ TIM** CEMT data is displayed.

### P/2

The second page of message is redisplayed.

If the new transaction uses BMS in PAGING mode, and RETAIN or RELEASE is specified in the SEND PAGE command in the application program, the output is chained to existing output, and a new level of chaining is created.

If RELEASE is specified, this chaining process can be repeated indefinitely. However, chaining requests must always be made while viewing pages at the highest level of chaining. Otherwise, messages at levels higher than the current level is automatically purged (if OPERPURGE has not been specified in the application program SEND PAGE command), or you are asked to purge them. If RETAIN is specified, no further chaining (in either TERMINAL or PAGING mode) can be performed until the second logical message has been terminated. Further chaining requests are rejected.

If neither RETAIN nor RELEASE is specified, the output from the second transaction is queued as a new message for the terminal, and is not received until all earlier messages have been terminated. It is thus not chained to the current message.

If you enter data that is not a paging command during a message chaining session, all pages on levels higher than the current level are deleted, if no message in the chain has been built using OPERPURGE=YES in the SEND PAGE command.

An example of the use of message chaining under BMS in PAGING mode is a search of a personnel file for people who speak French. Your initial inquiry might turn up three names. Without terminating the page containing the names, you can examine the records of each of the three people named. The chaining transaction could be used to read a record, without erasing the three names.

This would create output at the second level of chaining (the output from the original transaction being first-level output). When you finish viewing a person’s record, you enter a paging command to terminate the current level, see “Message termination” on page 172. The message displaying the person’s record would be purged, and the

## CSPG—page retrieval

original page, containing the three names, redisplayed.  
Assuming that the message chaining transaction identifier is C/, enter:

```
LANG DEPT=J34,FRENCH
```

Receive:

```
BERESFORD, J.A. 1043
LEVY, A.R.      7121
WALTON, J.     8143
```

To find out more about Beresford, enter:

```
C/PREC 1043
```

This finds the personnel record for employee number 1043. PREC is the identifier of a user-written transaction for examining personnel records. Receive:

```
NAME - BERESFORD, JERRY A.
EMPLOYEE NO - 1043
(and so on)
```

To go back to the list of names, enter:

```
T/C
```

T/ is the user-defined transaction identifier that terminates the message at the current level of chaining (see “Message termination”). Receive:

```
BERESFORD, J.A. 1043
LEVY, A.R.      7121
WALTON, J.     8143
```

You can now examine Levy’s record.

You can also chain a series of messages together and use paging commands to view the series simultaneously. Using the previous example, you can have the summary page as your base message (first level) and each of the personnel records as subsequent chain levels. Assume you are currently displaying the summary: Enter:

```
C/PREC 1043
```

Receive:

```
NAME - BERESFORD...
```

Enter:

```
C/PREC 7121
```

Receive:

```
NAME - LEVY...
```

Enter:

```
C/PREC 8143
```

Receive:

```
NAME - WALTON...
```

There are now four levels of logical messages at the terminal. You can now page back and forth between the personnel records. Enter:

```
P/(2)1
```

Receive:

```
NAME - BERESFORD...
```

Enter:

```
P/(L)1
```

Receive:

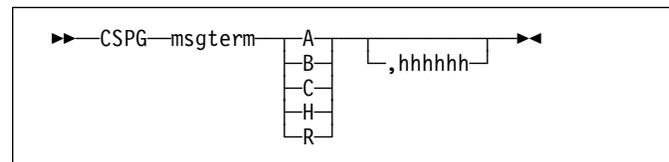
```
NAME - WALTON...
```

You can chain a new transaction only while you are viewing the last logical level. If you have four levels (as in the above example), view the summary page (level one) and then enter C/PREC 3642; the new transaction becomes level two and all other chained messages below that are erased (assuming that they have been built using a SEND PAGE command with the OPERPURGE option omitted).

Messages involving different partition layouts (different partition sets, including unpartitioned) may be chained. The current page in each partition is redisplayed on a change of message level.

## Message termination

You can erase a logical message using the message terminate command. If the logical message is security protected, it is terminated only if your identification or class matches that in the message. After an erase, the last message still in the chain is displayed. The format of the message terminate command is as follows:



### msgterm

A user-defined transaction identifier (1–7 characters) for the message termination transaction (for example T/) as defined in the PGPURGE system initialization parameter.

- A** Terminates all logical messages destined for and being displayed on that terminal (including routed messages not yet displayed). The following message is received when termination has been completed:  
DFHTP4122 Requested purge completed successfully
- B** Terminates the logical message being displayed on that terminal and all logical messages chained to it. This does not include routed messages. Whenever you have finished with all the output from a transaction, you should terminate the base message by entering a command of the form msgtermB. If the message has been built using a SEND PAGE command with the OPERPURGE option omitted, you can terminate the paging session by entering data other than a paging command.
- C** Terminates the current (level) logical message and any messages chained below it.

- H** Terminates all logical messages chained to the base logical message being displayed on that terminal. The page of the base message that was most recently displayed is redisplayed at the terminal.
- R** Terminates all logical messages queued for immediate delivery (routed) to the terminal. The page that was being displayed at the terminal is redisplayed.

**hhhhh**

The 6-digit hexadecimal identifier of a specific, undelivered logical message to be erased. (This identifier would have been determined using a page query command.) If the message specified is security-protected, the operator should have a security code that matches the one in the message.

If a message identifier (hhhhh) is not specified in the termination request and there is no message currently displayed, the oldest message is automatically retrieved.

---

## Copying pages

You can send a copy of the page being displayed, as it appeared when initially transmitted, to another terminal (normally hardcopy).

You do this by entering the page-copy transaction identifier and the identifier of the terminal that is to receive the copy, as follows:

```
msgcopytttt
```

**msgcopy**

The copy transaction identifier (1–7 characters), for example D/, as defined in the PGCOPY system initialization parameter.

**tttt** The identifier of the terminal to which the page is to be copied.

You get the message:

```
DFHTP4124 Page copied from terminal tttt
      (message number msgno)
```

Field and character attributes in the copied page that are not supported by the target terminal are ignored. The copied page is reformatted if it does not fit on the target terminal. Field and character attributes are discarded in the reformatting. If partitions are in use, the page copy command copies the displayed page for the partition in which the copy command is entered.

---

## Status of hardcopy terminal

A hardcopy terminal that is not defined as a paging terminal (one that displays pages when you request them) is an autopaging terminal (one that displays all pages without your intervention). An autopaging terminal may be temporarily designated as a paging terminal by the user's application program using the NOAUTOPAGE option of the SEND PAGE command. If this is done at the time the first page is to be displayed on the terminal, the terminal is temporarily treated as a paging terminal for the duration of the message. This condition exists until either of the following occurs:

1. You enter P/A (reset terminal to autopaging status), indicating that all subsequent pages are to be displayed without further intervention.
2. You enter T/C (terminate current message). All pages from that logical message are purged, and the terminal is again put into autopaging status.

P/ is the paging transaction identifier, and T/ is the terminate transaction identifier.

---

## Routed pages displayed at terminal

You can use the message-switching transaction to direct output to a terminal or terminals other than your own. For more information on message switching, see Chapter 15, "CMSG—message switching" on page 149. When a terminal to which you have directed a message is in TRANSCEIVE status, and is not involved with a transaction, and is not displaying pages, CICS displays the first page of that message.

However, if the terminal is in TRANSACTION status, you can display the first page only of a waiting message by entering CSPG, CSPG P/1, or just P/1. Here, you are using P/ as a paging command. If no page is waiting, you get the following message:

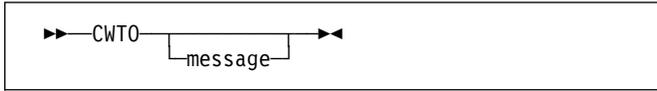
```
DFHTP4104 A paging request has been received but
      there are no pages for display
```



## Chapter 19. CWTO—write to console operator

Use CWTO to send messages to the console operator.

Start the transaction by entering CWTO, optionally followed by the text of your message, on the command line of the screen, as follows:



Press the ENTER key. If the transaction runs successfully, your message is sent to the console, and you get the normal completion response:

```
MESSAGE HAS BEEN SENT
```

If you enter CWTO with no message text, you are prompted for your message as follows:

```
ENTER MESSAGE
```

You can cancel the CWTO transaction by entering CANCEL as the last 6 characters of your message. The transaction is terminated and you get the following response:

```
TERMINATED BY OPERATOR
```

The following are some general points about the format of your messages:

- If your message exceeds the line length of the console, it is divided between words into more than one line. Each part of a divided message is prefixed by your identifier and by that of the originating terminal.
- New-line (NL) characters within your message are kept, although any leading NL character is deleted.
- You can include blank lines at the top of your transmitted message by pressing ENTER (or using carriage returns) the required number of times.
- You can enter any number of backspace characters for deletion. If you enter only blank characters, or if you delete all of the data by entering too many deletion characters, you get the following message:

```
NO INPUT - REENTER
```

**CWTO—write to console operator**

## Appendix. List of CICS transactions

The following table lists all the transactions that are supplied with CICS, except for those that are part of CICS sample programs.

The transactions that have operator interfaces, and which are therefore described in this manual, are marked by an asterisk (\*). The remainder therefore have no operator interface.

**Tranid** is the transaction identifier. **Program** indicates the program that is specified in the supplied transaction definition, and **Group** indicates the supplied resource-definition group that contains the transaction definition. For general information on resource definition and the CICS groups, see the *CICS Resource Definition Guide*.

| Tranid | Program  | Group    | Description  |
|--------|----------|----------|--|
| CATA   | DFHZATA  | DFHSPI   | Autoinstall terminal                               |
| CATD   | DFHZATD  | DFHSPI   | Delete autoinstalled terminal                      |
| CATR   | DFHZATR  | DFHSPI   | Restart autoinstalled terminal                     |
| CDTS   | DFHZATS  | DFHSPI   |  |
| CEBR*  | DFHEDFBR | DFHEDF   | Temporary-storage browse                           |
| CEBT*  | —        | —        | Master terminal, alternate CICS                    |
| CECI*  | DFHECIP  | DFHINTER | Command level interpreter                          |
| CECS*  | DFHECSP  | DFHINTER | Command level interpreter                          |
| CEDA*  | DFHEDAP  | DFHSPI   | Resource definition online (RDO)                   |
| CEDB*  | DFHEDAP  | DFHSPI   | Resource definition online (RDO)                   |
| CEDC*  | DFHEDAP  | DFHSPI   | Resource definition online (RDO)                   |
| CEDF*  | DFHEDFP  | DFHEDF   | Execution diagnostic facility                      |
| CEGN   | DFHCEGN  | DFHSIGN  | Good night transaction stub                        |
| CEHP   | DFHCHS   | DFHISC   | CICS/VM™ request handler                           |
| CEHS   | DFHCHS   | DFHISC   | CICS/VM request handler                            |
| CEMS*  | DFHEMSP  | DFHRCF   | Report controller (MT operator)                    |
| CEMT*  | DFHEMTP  | DFHOPER  | Master terminal                                    |
| CEOS*  | DFHEMSP  | DFHRCF   | Report controller terminal operator                |
| CEOT*  | DFHEOTP  | DFHOPER  | Terminal status                                    |
| CEPW   | DFHPSOP  | DFHRCF   | Report controller writer task                      |
| CESC*  | DFHCESC  | DFHSIGN  | Terminal timeout                                   |
| CESF*  | DFHSFP   | DFHSIGN  | Sign off   |
| CESN*  | DFHSNP   | DFHSIGN  | Sign on  |
| CEST*  | DFHESTP  | DFHOPER  | Supervisory terminal                               |
| CETR*  | DFHCETRA | DFHOPER  | Trace  |
| CFTS   | DFHZATS  | DFHSPI   | Remote mass flag                                   |
| CGRP   | -        | -        | Persistent sessions                                |
| CITS   | DFHZATS  | DFHSPI   | Remote install                                     |
| CLS1   | DFHZLS1  | DFHISC   | LU services model                                  |
| CLS2   | DFHLUP   | DFHISC   | LU services model                                  |
| CLS3   | DFHCLS3  | DFHISC   | LU services model                                  |
| CLS4   | DFHCLS4  | DFHISC   | LU services model                                  |
| CMPX   | DFHMXP   | DFHISC   | Local queuing shipper                              |
| CMSG*  | DFHMSP   | DFHMSWIT | Message switching                                  |
| CMTS   | DFHZATS  | DFHSPI   | Remote mass delete                                 |
| COVR   | DFHZCOVR | -        | CICS open VTAM retry                               |
| CPLT   | -        | -        | PLT programs                                       |
| CPMI   | DFHMIRS  | DFHISC   | Synchronization level 1 mirror                     |
| CQRY   | DFHQRY   | DFHSTAND | ATI query support                                  |
| CRMD   | DFHZATMD | DFHSPI   | Remote terminal delete                             |
| CRMF   | DFHZATMF | DFHSPI   | Remote terminal flag for delete                    |
| CRSQ   | DFHCRQ   | DFHISC   | ATI purge  |
| CRSR   | DFHCRS   | DFHISC   | Remote scheduler                                   |
| CRSY   | DFHRMSY  | DFHRMI   | Resource manager resynchronization                 |
| CRTE*  | DFHRTE   | DFHISC   | Transaction routing                                |
| CRTX   | #####    | DFHISC   | Dynamic transaction routing transaction definition |
| CSAC   | DFHACP   | DFHSTAND | Abnormal condition                                 |
| CSCY   | DFHCPY   | DFHVTAMP | 3270 print support                                 |
| CSFE*  | DFHFEP   | DFHFE    | Terminal test, trace, storage                      |
| CSFU   | DFHFUCU  | DFHOPCLS | File open utility                                  |

## Appendix

| Tranid | Program  | Group    | Description   |
|--------|----------|----------|---|
| CSGM   | DFHGMM   | DFHVTAM  | "Good-morning" signon   |
| CSJC   | DFHJCBSJ | DFHJRNL  | Journal control bootstrap   |
| CSKP   | DFHAKP   | DFHAKP   | Activity keypoint   |
| CSLG   | DFHZRLG  | DFHRSPLG | Log committed output messages   |
| CSMI   | DFHMIRS  | DFHISC   | Mirror transaction  |
| CSM1   | DFHMIRS  | DFHISC   | SYSMMSG model   |
| CSM2   | DFHMIRS  | DFHISC   | Scheduler model   |
| CSM3   | DFHMIRS  | DFHISC   | Queue model   |
| CSM5   | DFHMIRS  | DFHISC   | DL/I model  |
| CSNC   | DFHCRNP  | DFHISC   | IRC connection manager  |
| CSNE   | DFHZNAC  | DFHVTAM  | VTAM node abnormal  |
| CSPG*  | DFHTPR   | DFHBMS   | Terminal paging   |
| CSPK   | DFHPRK   | DFHVTAMP | 3270 print support  |
| CSPQ   | DFHP3270 | DFHHARDC | 3270 print support  |
| CSPQ   | DFHTPQ   | DFHBMS   | Terminal page cleanup   |
| CSPS   | DFHTPS   | DFHBMS   | Terminal page scheduling  |
| CSRK   | DFHRKB   | DFHVTAMP | 3270 print support  |
| CSRS   | DFHZRSP  | DFHRSEND | 3614 message resynchronization  |
| CSSC   | DFHCSSC  | DFHCOMP1 | Sign off inactive terminal  |
| CSSF   | DFHRTC   | DFHISC   | CRTE cancel remote transaction  |
| CSSY   | —        | —        | (See note)  |
| CSTE   | DFHTACP  | DFHSTAND | Terminal abnormal   |
| CSTP   | —        | —        | (See note)  |
| CSXM   | —        | —        | (See note)  |
| CSZI   | DFHSZRMP | DFHFEPI  | Front end programming interface (FEPI),<br>only active if FEPI installed. |
| CVMI   | DFHMIRS  | DFHISC   | Synchronization level 1 mirror  |
| CWTO*  | DFHCWTO  | DFHCONS  | Write to console operator   |
| CXCU   | DFHCXCU  | DFHSTAND | XRF catchup transaction   |
| CXPB   | DFHCXPB  | DFHRCF   | Report controller notify transaction                                      |
| CXRE   | DFHZXRE  | DFHSTAND | Autoconnect processing  |
| CXRT   | DFHCRT   | DFHISC   | Transaction routing relay   |

**Note:** Transactions CGRP, CSSY, CSTP, and CSXM are transaction names that are used by some CICS tasks.

# Bibliography

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| <i>Migration Guide</i>  | GC33-1646 |
| <i>Report Controller Planning Guide</i>                             | SC33-1941 |
| <b>General</b>  |           |
| <i>Master Index</i>   | SC33-1648 |
| <i>Trace Entries</i>  | SX33-6108 |
| <i>User's Handbook</i>  | SX33-6101 |
| <i>Glossary (softcopy only)</i>                                     | GC33-1649 |
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| <i>System Definition Guide</i>                                      | SC33-1651 |
| <i>Customization Guide</i>  | SC33-1652 |
| <i>Resource Definition Guide</i>                                    | SC33-1653 |
| <i>Operations and Utilities Guide</i>                               | SC33-1654 |
| <i>CICS-Supplied Transactions</i>                                   | SC33-1655 |
| <b>Programming</b>  |           |
| <i>Application Programming Guide</i>                                | SC33-1657 |
| <i>Application Programming Reference</i>                            | SC33-1658 |
| <i>Sample Applications Guide</i>                                    | SC33-1713 |
| <i>Application Migration Aid Guide</i>                              | SC33-1943 |
| <i>System Programming Reference</i>                                 | SC33-1659 |
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| <i>Front End Programming Interface User's Guide</i>                 | SC33-1662 |
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| <i>Problem Determination Guide</i>                                  | GC33-1663 |
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| Diagnosis Tools                      | SC33-6614    |
| Extended Addressability              | SC33-6621    |
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| Guide to System Functions            | SC33-6711    |
| Installation                         | SC33-6704    |
| Licensed Program Specification       | GC33-6700    |
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| Networking Support                   | SC33-6708    |
| Operation                            | SC33-6706    |
| Planning                             | SC33-6703    |
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| Unattended Node Support              | SC33-6712    |

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| Book title                           | Order number |
|--------------------------------------|--------------|
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| Installation and Customization Guide | SC26-8263    |
| Language Reference                   | SC26-8265    |
| Programmer's Guide                   | SC26-8264    |

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| Book title  | Order number |
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| C Run-Time Programming Guide                                | SC33-6688    |
| Concepts Guide  | GC33-6680    |
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|--|--------------|
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| Debug Tool For VSE/ESA User's Guide and Reference | SC26-8797    |
| Diagnosis Guide                                   | SC26-8058    |
| Installation and Customization Guide              | SC26-8057    |
| Language Reference                                | SC26-8054    |
| Licensed Program Specifications                   | GC26-8055    |
| Migration Guide                                   | SC26-8056    |
| Programming Guide                                 | SC26-8053    |
| Reference Summary                                 | SX26-3836    |

## Screen Definition Facility II (SDF II)

| <b>Book title</b>                | <b>Order number</b> |
|----------------------------------|---------------------|
| VSE Administrator's Guide        | SH12-6311           |
| VSE General Introduction         | SH12-6315           |
| VSE Primer for CICS/BMS Programs | SH12-6313           |
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