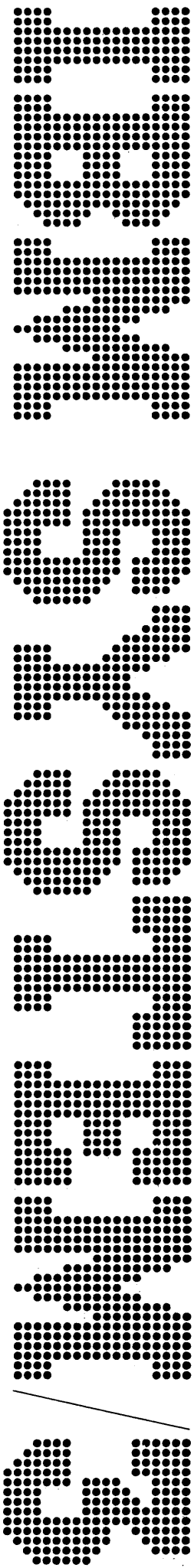




**IBM System/3  
Model 10 Disk System  
Communications Control Program  
System Operator's Guide**

**Feature 6033**

**Program Number 5702-SC1**



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## **Preface**

This publication contains information about using the IBM System/3 Model 10 Disk System Communications Control Program (CCP). You should be familiar with the operating procedures and halts for the Model 10 Disk System before operating the CCP.

This publication describes Generation and Assignment in general terms. It gives the operating procedures for Startup, CCP execution, and Shutdown. A glossary is provided to define the important terms. The messages, sample printouts of the commands available to the system operator, debugging aid programs, and online testing information are also given.

### **First Edition (September 1973)**

Changes are periodically made to the information herein; before using this publication in connection with the operation of IBM Systems, refer to the latest IBM System/3 Newsletter, GN20-2228, for the editions that are applicable and current.

The Communications Control Program feature will operate with version 08, modification 00 of the IBM System/3 Model 10 Disk System, Program Number 5702-SC1, and with all subsequent versions and modifications until otherwise indicated.

Requests for copies of IBM publications should be made to your IBM representative or to the IBM branch office serving your locality.

A form for reader's comments is provided at the back of this publication. If the form has been removed, comments may be addressed to IBM Corporation, Publications, Department 245, Rochester, Minnesota 55901.

## **Prerequisite Publications**

You should be familiar with the information contained in the following publications:

- *IBM System/3 Disk System Operator's Guide*, GC21-7508
- *IBM System/3 Disk System Halt Procedure Guide*, GC21-7540

## **Related Publications**

The following publications contain additional information about the CCP:

- *IBM System/3 Model 10 Disk System Communications Control Program System Reference*, GC21-7588
- *IBM System/3 Model 10 Disk System Communications Control Program Programmer's Reference*, GC21-7579
- *IBM System/3 Model 10 Disk System Communications Control Program Terminal Operator's Guide*, GC21-7580
- *IBM System/3 Model 10 Disk System Communications Control Program General Information Manual*, GC21-7578

The following publications contain System/3 teleprocessing information:

- *IBM System/3 Model 10 Disk System Multiline/Multipoint Binary Synchronous Communications Reference Manual*, GC21-7573
- *IBM System/3 Model 10 Disk System Multiple Line Terminal Adapter RPQ Program Reference and Component Description Manual*, GC21-7560



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CCP is the Communications Control Program for the IBM System/3 Model 10 Disk System. You, the CCP system operator, require a better understanding of the system than the operator of a batch system. You must make decisions on your own in a variety of situations. Many of these decisions require a thorough understanding of the method of operation of the CCP. You have the ability to display and modify the current status of the CCP; therefore you must understand the effect of your actions on the CCP and on the information processing system as a whole.

Try to be involved as early as possible in planning for installation of the CCP. The *IBM System/3 Model 10 Disk System Communications Control Program General Information Manual, GC21-7578*, provides a general description of the CCP. Reading it will help you better understand a communications based system. Prior to operating the system, you should become acquainted with the functions of the application programs in the system and with the files used by each program. You must be familiar with the configuration of the system and with the current status of the system and the current system assignments.

Someone else at your installation should also be familiar with the operation of the CCP system in the event you are absent. This person is usually known as the backup operator. The backup operator should be kept informed of any changes that are made to the system.





### WHAT IS CCP

The Communications Control Program (CCP) is a feature of the System/3 that allows the Model 10 Disk System to support an online network of terminals. CCP enables terminals to call application programs as needed and permits those programs to access a common set of disk files. Several application programs are permitted to execute concurrently, though independently of one another, when sufficient main storage is available. CCP controls the environment in which these application programs run.

### What is CCP

### ESTABLISHING THE CCP

Establishing the CCP is performed in two stages, Generation and Assignment. They are performed to tailor the CCP to your installation requirements.

- **Generation** — Creates a set of CCP object modules and subroutines that will be unique to your installation requirements.
- **Assignment** — Specifies one or more sets of specific environments in which the CCP can run. It creates assignment sets that further define the operating environment.

### Generation

### Assignment

Generation and Assignment are described in more detail in Chapter 2. You may be required to perform a generation or assignment; however, your *operator* responsibility begins when these stages have been completed.

### CONTROL OF THE CCP

Once the CCP is established, you are ready to assume control of the CCP. Controlling the CCP includes:

- **Startup** — When you load the generated CCP and are allowed to change certain specifications within an assignment set.
- **Operational stage** — When Startup prints 000 CCP STARTED, the CCP is ready to communicate with the terminals and application programs. You may exercise control over the system during this stage. You can determine if the system should accept new requests from terminal operators. While the system is in operation, you can initiate certain system actions, determine the system status, and alter the set of terminals permitted to access the system. You must also make decisions when exceptional situations (such as error conditions) are detected.
- **Shutdown** — When you tell the CCP to stop processing, the application programs may or may not, at your discretion, be allowed to complete processing. Shutdown closes communication lines, adapters, and files.

### Startup

### Operational stage

### Shutdown

## COMMUNICATION WITH CCP

### Printer-keyboard

Your communication with the CCP is through the 5471 printer-keyboard. This manual refers to the 5471 printer-keyboard as a console. Messages from the system are printed on the console; some require responses from you. Those requiring responses are preceded by an asterisk. During Startup, you may immediately key the response, because Startup prepares the console by returning the carriage and turning on the PROCEED light. During the operational stage, you may respond by pressing the REQ key and then keying the response. You may command a system action at any time during the execution of the CCP. Commands are described in *Chapter 4. Controlling The CCP After Startup* and the messages are described in *Chapter 6. Message Formats*.

### Console operating instructions

The operational stage begins after Startup is finished, signified by message 000 CCP STARTED. The following points explain the differences between running CCP during the operational stage as compared to running System/3 without CCP.

- Whenever you want to enter input from the console, you must press the REQ key. When CCP is ready, the PROCEED light turns on and then you may enter your input.
- Pressing the CANCEL key will cancel the current input. CCP documents this by printing a cancellation message **\*\*CNCL\*\***. When you are ready to enter more data, you must press the REQ key.
- When the **\*\*ABRT\*\*** message appears, CCP has reached a point where the entire system is being held up because the console is not available for output. CCP terminates and ignores the current input operation at the console and begins output to the console. This situation can occur when insufficient buffer space exists due to a number of output messages queued for output to the console. Reenter the ignored data when the console output ceases.
- Input from the console can be up to 82 characters. If an attempt is made to enter more than 82 characters from the console, the input is ignored and a message printed to indicate the input was too long. When you are ready to reenter the data, you must press the REQ key.
- Whenever a forms error condition is sensed on the console, CCP prints a message indicating the forms need attention, **\*\*FORM\*\***. A halt occurs (ØF) that should be reset when the forms error condition has been corrected.

## TERMINALS USING CCP

### Communicating with terminals

When terminals are communicating with the CCP, you will receive messages on the console indicating the nature of what is happening. For instance, you are notified each time a terminal operator attempts to sign-on. In some instances, the CCP does not automatically tell you what is happening, but, you have commands that you can use to request information about the operation of the system. For example, you have commands available to:

- Tell you the status of the system.
- Tell you the number of programs on queue.
- Tell you the name of a program and the name of the terminal it is using.
- Tell you the terminals that have requested programs.

## PROGRAM AND SYSTEM INFORMATION

Information about each application to be run on the system and also the current system information should be supplied to you by your data processing personnel. The following example sheets show you the type of information you need to run the system.

### Current System Information

### System information

1. General information about the system

Terminals attached to the system \_\_\_\_\_  
Lines available on the system \_\_\_\_\_  
Files available \_\_\_\_\_

2. Schedule of work

Work performed by each terminal \_\_\_\_\_  
Work performed by system operator \_\_\_\_\_  
Total work schedule \_\_\_\_\_

3. What is the current password or other security information \_\_\_\_\_

4. What are the current data mode escape characters \_\_\_\_\_

5. What assignment set should be used during startup \_\_\_\_\_

6. What is the current default for signing-off each terminal. Hold or drop. \_\_\_\_\_

7. What error recovery procedures are to be followed for certain terminal errors or while specific programs are running \_\_\_\_\_

Keep a copy of the assignment set listing near the console for reference to the assignment set configurations.

**Program Information**

Application _____		Date _____	
Program Name _____		Number _____	
Programmer _____			
1. Symbolic name of the program _____			
2. Function of the program _____			
3. System resources used by the program			
Files		How Used	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Terminal ID	Symbolic name	Location	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
4. Main storage required _____			
5. Typical operating time _____			
6. Can input data be entered with the program request _____			
7. What input is expected _____			
8. End message will be sent to terminal    Yes    No _____			
9. Special considerations			
Program restricted in any way _____			
Potential problems in suspending or cancelling the program before it has finished _____			
10. Under what conditions can programs be cancelled _____			

### GENERATING THE CCP

Generation, the first stage in creating the CCP, is the process whereby portions of the distributed CCP are selected to give your installation the capabilities that are necessary to process application programs.

#### Generation

Performing CCP Generation is similar to performing system generation for the Model 10 Disk System. The system configuration and the desired functions are described by means of a series of statements which consist of keywords with associated values. These statements, for instance, specify the maximum capabilities the CCP is to have (in terms of types of programs and the number of concurrently executing programs) and whether or not the CCP is to have certain optional features such as password sign-on and user program request counts.

Generation creates the control file \$CCPFILE. This file is completed during the second stage, Assignment. Assignment and Startup permit further tailoring of the CCP.

Generation is a process you may not have to perform. However, if you are required to perform a CCP generation, you can find the procedures in the *IBM System/3 Model 10 Disk System Communications Control Program System Manual*, GC21-7588.

#### Where to find the Generation procedures

### Display Format Facility

The 3270 Display Format Facility (DFF) is a facility of the CCP that can be selected during CCP Generation. This allows programs written in RPG II, COBOL, FORTRAN IV, and Basic Assembler to control the display format for the 3270 Information Display System. The DFF makes it possible to perform operations involving data fields in the display directly from the application program in a manner similar to performing operations with any other terminal supported under CCP.

#### Display Format Facility for 3270

The DFF is composed of the Display Format Generator and the Display Format Control Routine. The generator, which is executed prior to CCP Startup, processes special DFF specifications, builds display formats, and stores the display formats in an object library. The control routine processes requests for DFF services issued by application programs running under the CCP.

### ASSIGNMENT

The Assignment stage consists of running the Assignment Build program to describe an operating environment in more detail.

#### Assignment

Assignment is used to define one or more *sets* of terminals, files, programs, and system environments that will be available to the CCP. These assignment sets are recorded in the disk file, \$CCPFILE, which was created during the Generation stage. The CCP runs under one of the assignment sets; that is, the CCP has access to a particular group of terminals, files, and programs. You can vary these resources by specifying a different assignment set or by modifying/suppressing certain items within an assignment set during Startup. Therefore, you can control which programs are eligible to be called during a particular run, or you can restrict the use of certain files during a run.

The information defined within an assignment set during the assignment stage is valid for any number of CCP runs. If a terminal, program, or file must be added or removed from the set or when aspects of the system environment change, the contents of the assignment set can be modified by repeating the assignment run, without performing generation again.

**Where to find the Assignment procedures**

Assignment is a process you may not have to perform. However, if you are required to perform an assignment, you can find the procedures in the *IBM System/3 Model 10 Disk System Communications Control Program System Manual, GC21-7588*.

After assignment has been completed, the Assignment List program should be run.

**Assignment List Program**

**Assignment List**

This program can be executed any time after the Assignment stage has been run. It lists the:

**Listing assignment sets**

- Contents of all the assignment sets in \$CCPFILE or the contents of an individual set in the file.

**Listing program request count**

- Program request count for each program in \$CCPFILE, if the count option was chosen at Generation. The counts can be listed either separately for each set or as a total, by program, for all sets. They can be reset to zero after being listed.

**Where to find Assignment List procedures**

The procedure for running the Assignment List program, \$CCPAL is contained in the *IBM System/3 Model 10 Disk System Communications Control Program System Manual, GC21-7588*. After the Assignment List program has been run, you can perform Startup.

### STARTUP

Startup is a part of the CCP that you perform. It is the initiation for the resident CCP control program. The CCP can be run in either program level if your system has DPF, but in only one level at a time. During the Startup operation, the halt code in the message display unit of the non-CCP program level is changed from EJ to U—. Batch programs cannot be run in the non-CCP level during Startup. The halt in the non-CCP level will indicate EJ when Startup has been completed and you may load other programs in that level. These are loaded in the same manner that you do without CCP for the Model 10, except that you must submit OCL from the card reader. It is necessary to enter a // PARTITION statement to reserve core for program level 2 if you intend to run CCP and the other program level. The // PARTITION statement specifies the size of program level 2.

CCP specifications are given during Generation and Assignment. You can change some of these specifications at Startup. They remain changed only during the current run and do not permanently alter the values given during Generation and Assignment.

The specifications you are to change must be defined to you. You can change the assignment set specifications that will be used for the current run. You can:

- Specify the location (unit) of \$CCPFILE.
- Select the appropriate assignment set.
- Suppress the use of programs.
- Suppress the access to disk data files.
- Change the CCP security password.
- Disable telecommunications lines.
- Disable access to (and by) telecommunications terminals.
- Change the teleprocessing buffer area size.
- Change the user program area size.
- Change the number of concurrently executing programs.
- Specify CCP trace or change the size of the trace area.
- Inhibit the use of program request count for the current run.
- Specify the use of the tracing routine within MLTA control routines.
- Specify the use of the tracing routine within BSCA control routines.
- Inhibit initial use of a terminal until later during the run.

### Startup on a DPF system

### What you can change at Startup



## Responding to Startup prompts

Startup is a sequence of prompts (messages) printed on the console that allow you to temporarily change specifications within an assignment. By answering the prompt with YES or Y, you are telling the CCP that you are requesting further prompting for individual changes. By entering an appropriate keyword (with a value if required), a change is made without further prompting. Keywords and values may be entered (one keyword and value at a time) until the END key is pressed without any keyed input. By entering NO or N or by pressing the END key, you are indicating that the value is to remain unchanged.

Before Startup you must check that the following operations have been performed:

- CCP generated.
- Assignment set entered into \$CCPFILE.
- MLTERFIL initialized (see *IBM System/3 Model 10 Disk System Communications Control Program System Reference*, GC 21-7588 for a description of how to initialize the error file).

## Common Startup procedure

### Performing Startup – No Changes Required

1. Ensure that both program levels are inactive if CCP is to run on a DPF system.
2. Ensure that the disk packs are online and remain online throughout the run.
3. Enter OCL statements to load \$CCP. It is recommended that a // PARTITION statement be entered before other OCL and the CCP be run in program level 2 for a DPF system.
4. Respond NO or press the END key when CCP prompts:  
  
\*SU011 ANY SPECIFICATIONS?
5. CCP messages (no response required):  
  
SU071 INITIALIZING CCP  
SU753 OPENING DISK FILES  
SU915 DYNAMIC T/P BUFFER AREA =  
SU916 USER PROGRAM AREA =  
SU917 UNALLOCATED CORE =
6. Press the END key if CCP prompts:  
  
\*SU918 SPECIFY ANY EXTRA USER PROGRAM AREA (NN.NNK)
7. CCP messages (no response required):  
  
SU997 OPENING COMMUNICATION LINES  
000 CCP STARTED

## Performing Startup – Making Assignment Changes

1. Ensure that both program levels are inactive if CCP is to run on a DPF system.
2. Ensure that the disk packs are online and remain online throughout the run.
3. Enter the OCL partition statement if you are using CCP on a DPF system and the non-CCP level will be activated after Startup has been completed.
4. Enter OCL statements to load \$CCP into the appropriate program level. It is recommended that CCP be run in program level 2.

**Complete startup procedure**

OCL STATEMENTS																																																			
1	4	8	12	16	20	24	28	32	36	40	44	48	52																																						
//	LOAD	\$CCP,	unit	(Unit where \$CCP is located)																																															
//	FILE	NAME-	filename,	UNIT-unitid,	PACK-packid,	...																																													
//	FILE	(One file statement for each disk file)																																																	
//	FILE																																																		
//	RUN																																																		

**OCL statements**

In making out the OCL, note the following restrictions:

- Maximum number of file statements is 40.
- File statement for \$CCPFILE must not be entered.
- Use of the // HALT or // NOHALT statement is not affected at Startup. The other program level (for DPF systems) may continue to use these statements normally during the operational stage. The Shutdown stage sets the system to halt as if the // HALT statement had been entered.
- The CCP level logs all messages to the console regardless of where the system log device has been assigned. In a DPF system, the non-CCP level cannot log to the console. Therefore, if the system log is assigned to the console during Startup, CCP automatically turns the log off. If the system log is not assigned or is assigned to the printer, CCP will take no actions as regards the system log assignment.

**Log statement**

*Note:* Additional information about the OCL statements is contained in the *IBM System/3 Model 10 Disk System Control Programming Reference Manual, GC21-7512.*

5. The remainder of Startup is a series of prompts, in message format, whereby you can make temporary changes to an assignment set.

## Format of Startup message

The format of the Startup message is:

\*SU~~nn~~~~bb~~text?

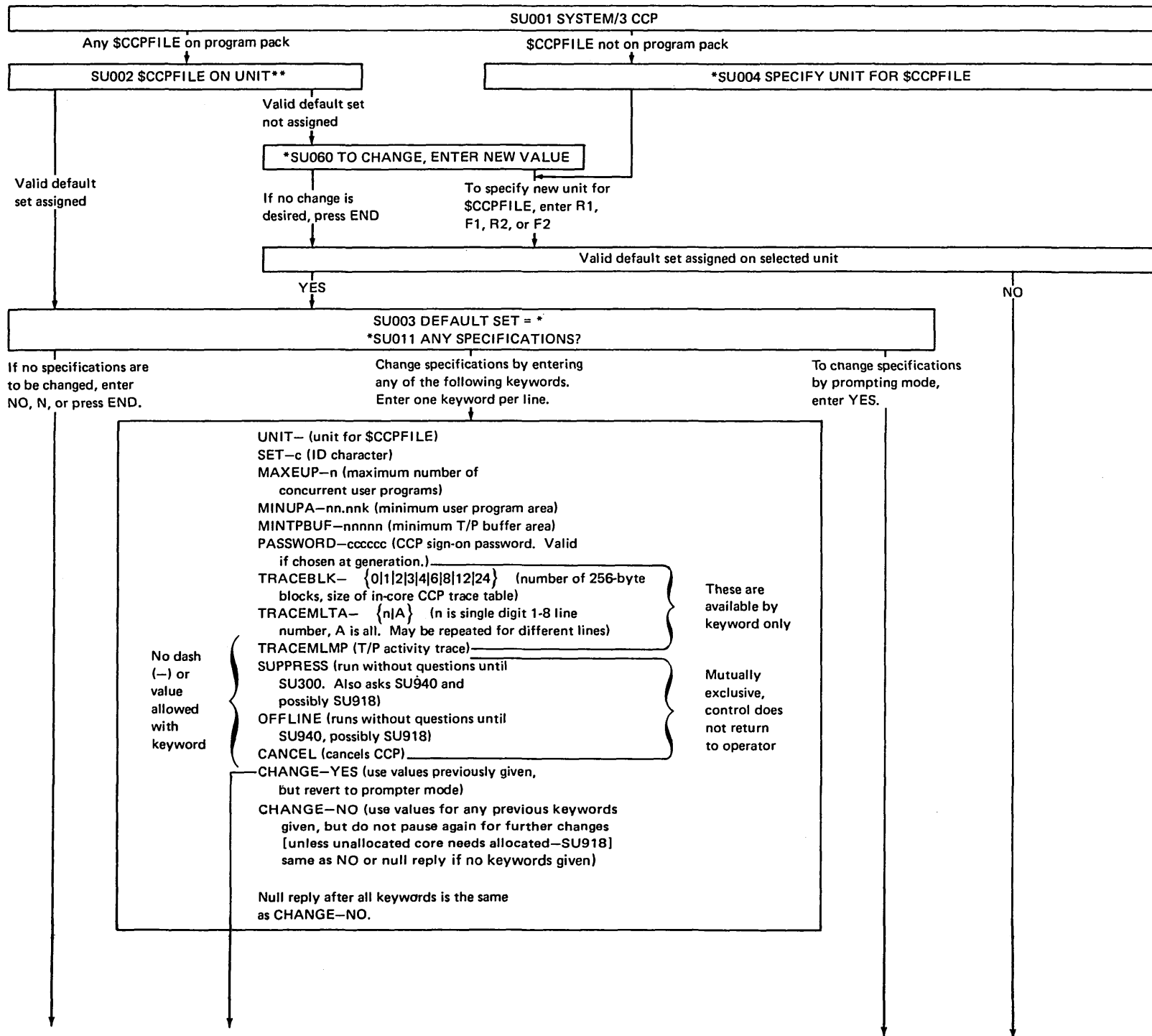
- \* Indicates that the message requires a reply, otherwise the first character is blank.
- SU Indicates a Startup message.
- nnn A reference number used for clarification of the text that follows (see *Startup Messages*).
- ~~bb~~ Separates the reference number from the text.
- text The Startup message.
- ? Indicates that CCP Startup is waiting for your reply. When the question mark appears you may enter YES, Y, NO, N, enter a keyword (except for SU395), or press the END key. The END key may be pressed to retain the current information at all times.

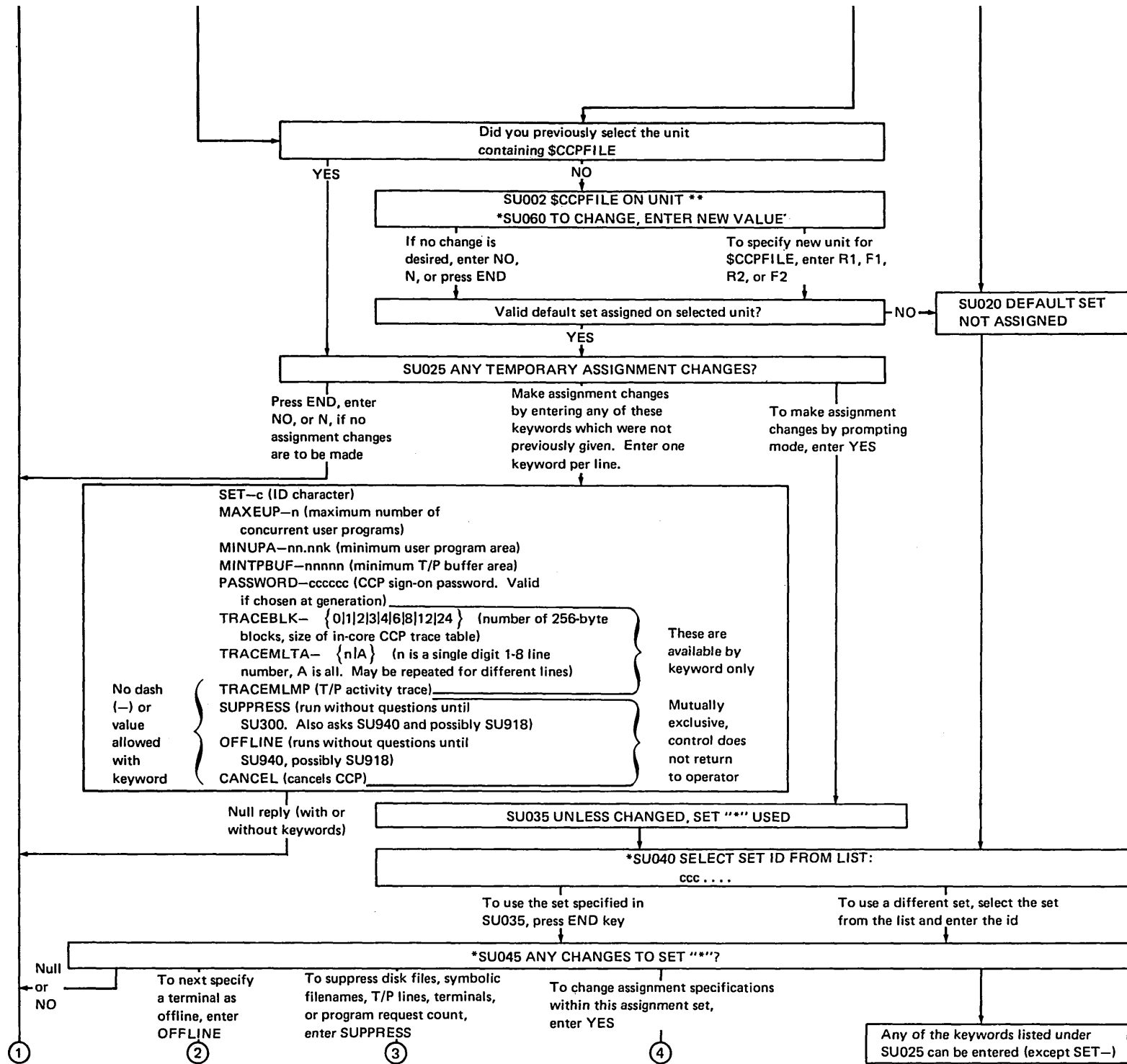
A Startup error message is indicated by \*ERROR\* as the first word of text followed by a blank and then the remainder of the text.

## Options taken to disk system halts

In addition to the messages issued during Startup (see *Startup Messages*), any one of the halts issued by the System/3 Disk System may occur. The information needed to recover from these halts is provided in the *IBM System/3 Model 10 Disk System Halt Guide*, GC21-7540. If you exercise the 2 (controlled cancel) or 3 (immediate cancel) option to a halt issued by the System/3 Disk System, that action is performed and CCP is terminated.

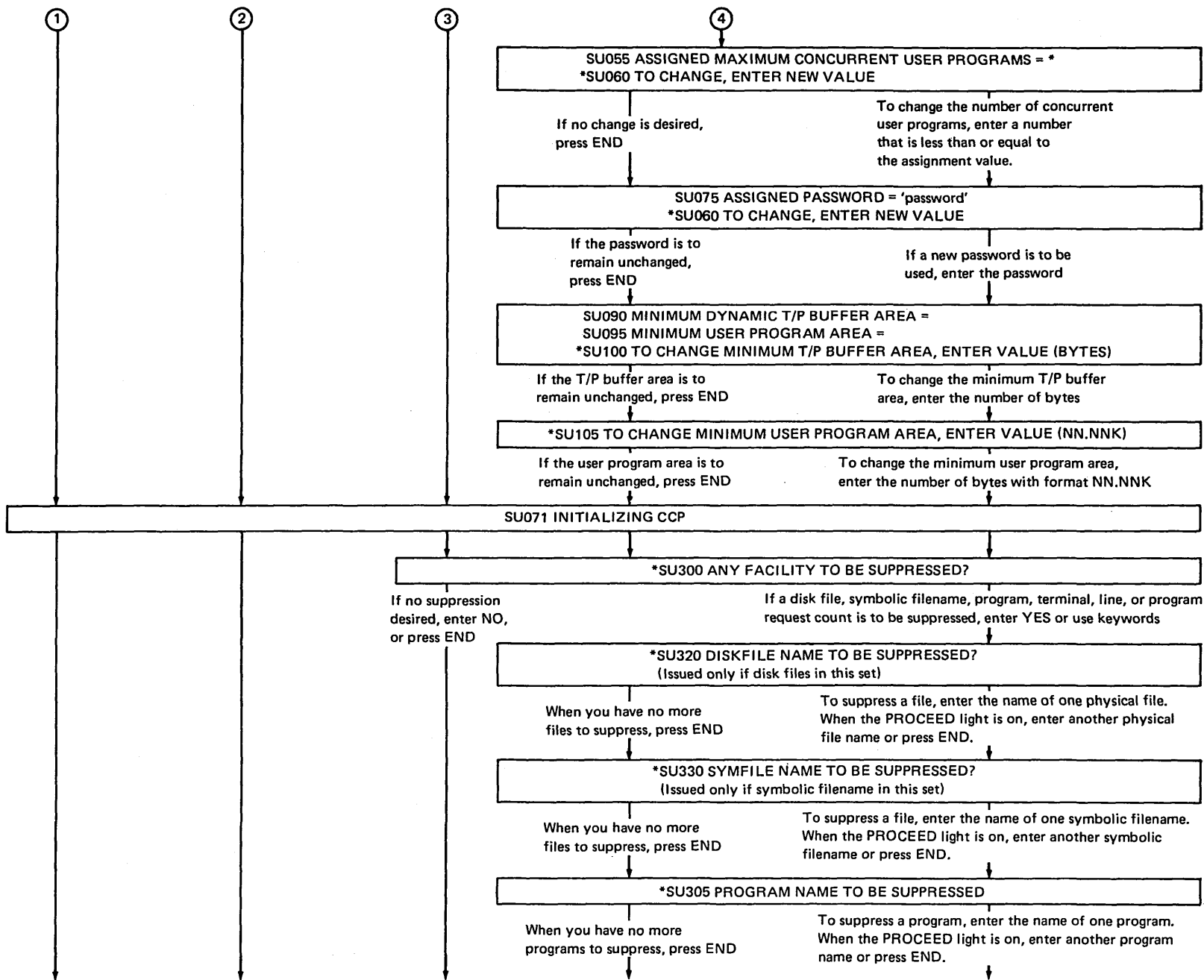


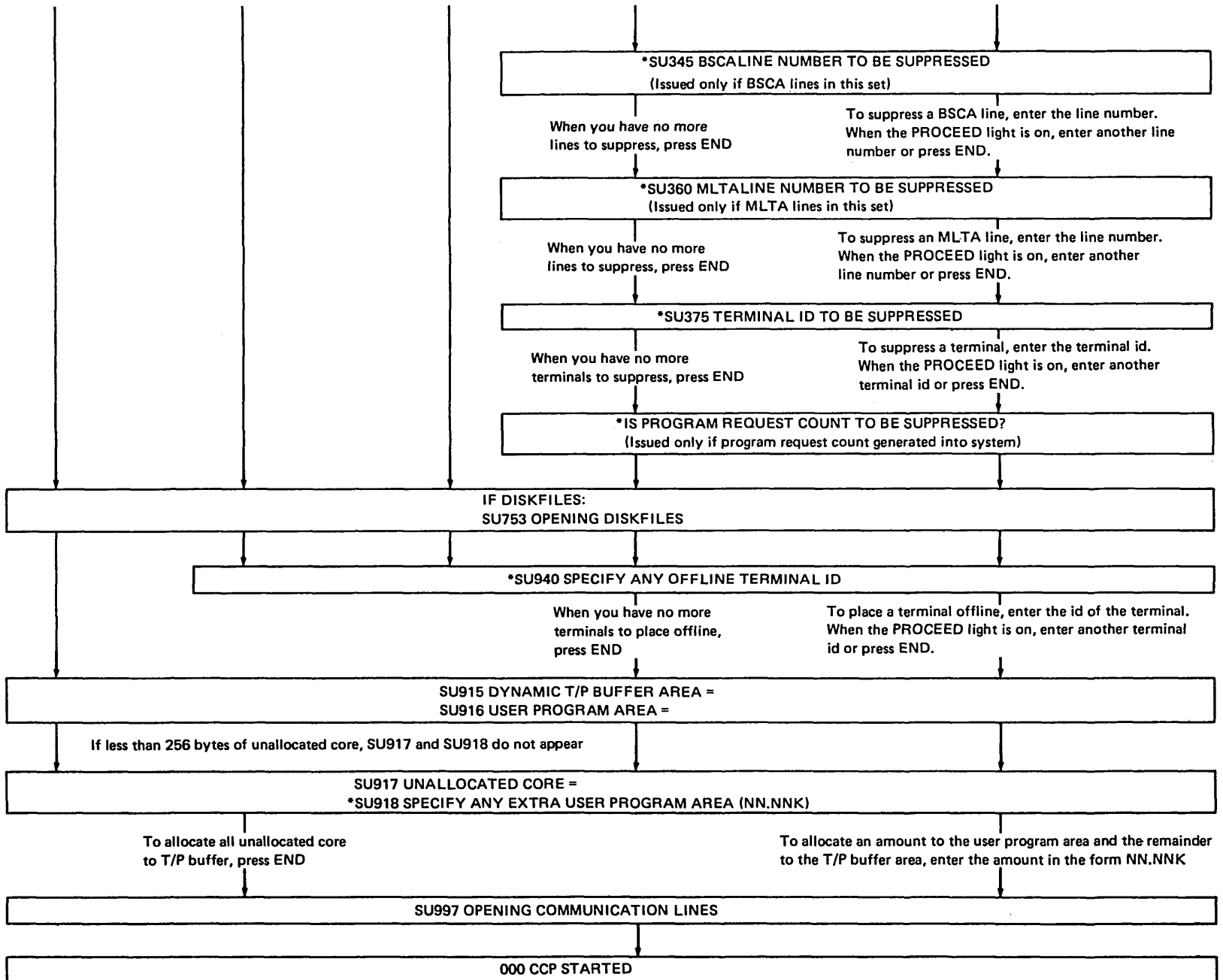




SET—c (ID character)  
 MAXEUP—n (maximum number of concurrent user programs)  
 MINUPA—nn.nnk (minimum user program area)  
 MINTPBUF—nnnn (minimum T/P buffer area)  
 PASSWORD—cccc (CCP sign-on password. Valid if chosen at generation)  
 TRACEBLK— { 0|1|2|3|4|6|8|12|24 } (number of 256-byte blocks, size of in-core CCP trace table)  
 TRACEMLTA— { n|A } (n is a single digit 1-8 line number, A is all. May be repeated for different lines)  
 TRACEMLMP (T/P activity trace)  
 SUPPRESS (run without questions until SU300. Also asks SU940 and possibly SU918)  
 OFFLINE (runs without questions until SU940, possibly SU918)  
 CANCEL (cancels CCP)

These are available by keyword only  
 Mutually exclusive, control does not return to operator







## SHUTDOWN

### Shutdown

The Shutdown operation begins when you enter the Shutdown command. See *How to Stop The CCP System*. CCP informs the application program that a Shutdown command has been entered and the program should terminate as soon as possible. Shutdown allows all application programs that are currently running under the CCP to complete processing. Each application program should recognize the fact that CCP is shutting down and must perform the necessary termination action.

### Allowing programs to complete

### Waiting for EJ

Shutdown also allows queued programs to be initiated when other programs terminate and when the resources are available. When all programs have terminated, the EJ halt is displayed in the message display unit. However, some time may elapse before the halt appears, depending upon how many programs are executing, how many programs are on queue, or the number and size of index sequential add files to be sorted. To learn what is happening during this time, you can enter the Display Queue command to determine the number of queued program requests or the Display Users command to determine the program names and the terminals still in use. These and other system operator commands can be entered up until the last user program has completed processing. At that time Shutdown begins its final processing and no additional input to CCP is allowed.

### Cancel

### Cancel

The cancel operation begins when you enter the Cancel command. See *How To Cancel A User Program or The CCP*. CCP cancel causes all applications to immediately cease processing and CCP to go through Shutdown.

### Not allowing programs complete

You control the system during the operational stage of the CCP. During its operation you can do the following:

- Enable/disable telecommunications lines and terminals.
- Initiate programs.
- Reassign symbolic terminal names.
- Respond to specific messages on the console from terminal operators or user programs.
- Request the status of the CCP, including:
  1. Enabled lines/terminals
  2. Programs currently in main storage
  3. User program last in control of the CPU
  4. Allocation of resources per program
  5. Queued program requests by terminal ID and program name
- Request online terminal tests.
- Shutdown CCP in a controlled manner; accepting no new program requests, but honoring completely all those accepted to this point.
- Cancel a currently executing application program.
- Cancel the system immediately; only the transmission of any messages currently being sent or received are completed.
- Send messages to terminals.
- Enable/disable CCP trace to disk.
- Allocate/deallocate unit record devices to CCP or the other level of a system using the dual programming feature.

**What you can change after Startup**

### COMMANDS USED TO CONTROL THE CCP

You can enter commands in either full length versions or abbreviated versions. In some instances the commands require you to enter additional information. The commands are as follows:

**System operator commands**

Command	Abbreviation	Description
MSG	M	Send a message
DISPLAY REPLIES	DØR	Display replies
DISPLAY QUEUE	DØQ	Display the program queue
DISPLAY TERMINALS	DØT	Display terminal status
DISPLAY TERMADDR	DØA	Display terminal assignment
DISPLAY USERS	DØU	Display the users status
ALLOCATE	L	Allocate/deallocate unit record devices
SUSPEND	S	Suspend program(s) /initiation/ terminal commands
RESUME	R	Resume program(s) /initiation/ terminal commands
VARY	V	Change a terminal's status
ASSIGN	A	Assign a name to a terminal
ERP	P	Recover from a terminal's error
TRACE	E	Enable/disable trace to disk
TEST	T	Perform an online test
CANCEL	C	Cancel a program or CCP
SHUTDOWN	SHUTDOWN	Shutdown CCP

**Entering a command**

When you enter a command, start it in the first position and follow it with at least one blank. Any additional information follows the blank. Total input length is 82 characters. Refer to *Appendix C. Sample Printout of Commands* for an example of how the commands are entered.

The following pages explain each of the commands and describe how to issue them. The format of the commands are illustrated using the following conventions.

- Braces { } indicate you must choose one of the entries.
- Brackets [ ] indicate that the enclosed entry is optional.
- Capitalized letters are to be entered exactly as shown.
- Small letters represent information you must supply.
- Apostrophes must be entered when shown.

**Message command**

**HOW TO SEND A MESSAGE TO A TERMINAL**

Use this command to send a message to a command terminal operator who is currently online but not under control of an application program. You enter the command or its abbreviation, the terminal identification, and the message to be sent. After you enter the command, the CCP informs you whether or not the message was sent.

Command		Additional Information
{ MSG } { M }	Ø	{ symbolic terminal name <b>1</b> } { 'terminal physical ID' <b>2</b> }, message text

- 1** The name is defined during the CCP Assignment run.
- 2** The 2-character ID of the terminal is assigned during the CCP Assignment.

**HOW TO DISPLAY OUTSTANDING REPLY REQUESTS**

**Display Replies command**

Use this command to determine what tasks are waiting for your reply. This command tells the CCP to list all of the tasks (by application program ID) that are currently waiting for your reply.

Command		Additional Information
{ DISPLAY } D	Ø	{ REPLIES } R

The CCP replies by writing a list of task identifications:

- \*ØTASK ID 1
- \*ØTASK ID 2
- \*ØTASK ID 3
- ⋮
- \*ØTASK ID n

When no tasks are waiting a reply, the CCP replies by writing this message:

211 NO REPLY PENDING

A reply request is initiated by a user program by issuing a put-then-get to the console. You should be aware of the possibility of a reply request and be prepared to respond to it as soon as possible.

Reply requests that remain pending for some period of time cause a possible backlog of work to accumulate for the system as the program awaiting the reply is in control of system resources required by pending program requests.

**Answer reply requests as soon as possible**

The format of reply request messages to you is given in *Chapter 6. Message Formats under Your Reply Message During The Operational Stage.*

If a number of programs are awaiting replies from you, the system is probably not performing any useful work for your installation. However, those programs that are not awaiting replies continue to process. Even while you are replying to some program through the console, processing is continuing in the computer.

**HOW TO DISPLAY QUEUED PROGRAM REQUESTS FROM TERMINALS**

You can enter this command anytime to determine what program requests are queued awaiting execution. Display Queue lists which terminals have requested programs and the name of the requested program.

**Display Queue command**

## Estimating processing time

Use of this command can let you know what the processing backlog is in the system in terms of the number of jobs to be run. By knowing what programs are to be run, you can estimate the processing time for those jobs.

You may issue this command before or after issuing a Shutdown command to learn how many program requests must be processed before CCP will terminate.

Command		Additional Information
{ DISPLAY }	b	{ QUEUE }
D		Q

The CCP replies by writing a list of requesting terminal names and program names:

symbolic terminal name, program name

⋮

symbolic terminal name, program name

When no program requests are on queue, the CCP replies by writing this message:

301 NO QUEUED PGM REQUEST

## HOW TO DISPLAY THE STATUS OF A TERMINAL

### Display Terminals command

Use this command to tell the CCP to list the status information about a terminal.

You may issue this command:

- To determine the current status of a terminal.
- To determine the terminal's name.
- To determine what task is controlling a terminal.
- To determine if or when there appears to be a problem with a terminal.

Command		Additional Information
{ DISPLAY }	b	{ TERMINALS }
D		{ 'terminal ID' } { ,symbolic terminal name } <b>1</b> { blank } <b>2</b>

The CCP replies with a system message line indicating that status is being displayed. Following that line are message lines containing the status information.

### Status information

**1** The following status information is printed for the terminal selected:

- Terminal identification (terminal ID 'xx') if entered as symbolic terminal name. If entered as terminal ID 'xx', the response is the symbolic name currently in use by that terminal.
- Identification of the task that is currently in control of the terminal, or a P if no user program has the terminal.
- Whether terminal is online or offline.
- The mode the terminal is in: initial mode, command mode, command interrupt mode, or data mode. See *Appendix A. Glossary* for a definition of the mode types.
- Whether or not this terminal is a requesting terminal. Requesting terminal is defined in the reason for message 270.
- Number of file table entries in use for a command mode terminal.
- Number of /FILE commands entered by the terminal operator (FSB= ).
- Whether or not the terminal is in ERP (error recovery) or OLT (online test) or both.

**2** The above information is printed for all of the terminals defined to the CCP.

## HOW TO DISPLAY THE TERMINAL ASSIGNMENTS

Use this command to tell the CCP to list the symbolic name and terminal ID of each terminal defined to the system. The symbolic name is the currently active name (*doing business as name*) of the terminal.

You can use this command when you need to know what name is currently assigned to a terminal, for example, when you use an Assign command to change the terminal which is actually addressed by a particular symbolic name.

**Display Terminal Assignment command**

**Currently assigned name**

Command		Additional Information
{ DISPLAY }	b	{ TERMADDR } { ,symbolic terminal name <b>1</b> }
{ D }		{ A } { blank <b>2</b> }

The CCP replies with a system message line indicating that the name and corresponding ID is being displayed.

**1** The following information is printed for the specific terminal selected:

symbolic name<sub>1</sub>, terminal ID<sub>1</sub>

**2** The following information is printed for all of the terminals defined to the CCP:

symbolic name<sub>1</sub>, terminal ID<sub>1</sub>  
 symbolic name<sub>2</sub>, terminal ID<sub>2</sub>  
 }  
 symbolic name<sub>n</sub>, terminal ID<sub>n</sub>\*

Where \* indicates that this is not the current *doing business as name* of the terminal.

## HOW TO DISPLAY THE STATUS OF TASKS AND PROGRAMS

### Display Users command

Use this command to tell the CCP to list information about one task or all tasks currently in main storage. If the command is issued specifying a currently inactive task or without a specific task ID and no tasks are currently active, the CCP prints a message indicating that fact.

Command		Additional Information
{ DISPLAY } D	b	{ USERS } U      { blank ,task ID ,LAST } <b>1</b> <b>2</b> <b>3</b>

You can use this command when you need to know the status of a particular program or all programs currently executing.

**1** If a task ID is not entered, the GCP prints a system message line indicating that task status information is being displayed.

The following information is printed for each task:

### Task information

- Task identification.
- Program name.
- Suspended/active/wait indicator. (The wait indicator is intended for use by IBM Program Support Field Engineering for diagnostic purposes.)
- Program area core size.
- Number of terminals in use.
- Number of disk DTFs in use (disk files).
- Number of unit record devices allocated.
- \*ALLOCATION\* – If the task is in allocation.

**2** If a task ID is entered, one line is printed for the requested task. Then, in addition, a separate line is printed for each terminal, each disk file, and each unit record device allocated to that task.

The following information is printed for each:

- Allocated terminal.
  1. Symbolic terminal name
  2. Terminal ID
  3. Terminal queued or active indicator (applies to MRT programs)
  4. I/O scheduled
- Disk file – actual disk filename
- Unit record device – device type = (printer, 5424, 1442)

**3** If LAST is entered, one line is printed telling the task ID of the user program that was last in control of the system. If this command is entered several times and the CCP responds with the same task ID, it is an indication that the task may be holding control of the system and not allowing other tasks to execute.

**Program task last in control**

### HOW TO CHANGE DEVICE STATUS

Use this command to make the MFCU, 1442, or printer available to user programs in the CCP program level or to programs in the other level in a DPF system.

**Allocate command**

Command		Additional Information
{ ALLOCATE L }	⊆	{ MFCU 1442 PRINTER } <b>1</b> { ,CCP ,OTHER } <b>2</b>

**1** Specifies the device whose allocation status is to be changed. The device must have been defined to CCP during Generation.

**2** If CCP is specified, the device is available to user programs running under CCP. If OTHER is specified, the device is not available to user programs running in the CCP program level. It may now be used by programs in the non-CCP program level.

For example, if the CCP has the MFCU and you attempt to start a program using the MFCU as SYSIN in the non-CCP program level, a JP halt will appear in the other level's message display unit. At this time you may enter the CCP allocate command as follows:

ALLOCATE MFCU,OTHER

This will make the MFCU available to the other level. You may now reset the JP halt with a zero option and the non-CCP program level will read its OCL input from the MFCU.

**Example of changing device status**



## HOW TO SUSPEND REQUESTS/EXECUTION/INITIATION OF PROGRAMS

### Suspend command

Use this command to:

- Suspend execution of all application programs.
- Suspend execution of one application program.
- Prevent initiation of additional application programs.
- Prevent accepting terminal operator commands.

Command		Additional Information
{ SUSPEND } S	b	{ USERS <b>1</b> task ID, program name <b>2</b> INIT <b>3</b> COMMANDS <b>4</b> }

### Suspend all programs

- 1** Suspends the processing of all application programs and prevents new programs from being initiated. This command could be used if CCP appears to be malfunctioning and you want to suspend operations to examine the system status. The Display Users, Display Terminals, or Display Queue commands can be used to examine the system status.

### Suspend one program

- 2** Suspends a particular application program when that program appears to be holding control of the system or otherwise malfunctioning.

### Prevent program initiation

- 3** Prevents initiation of further requests for application programs. Programs that are on queue, remain on queue. This command can be used to prevent programs from being initiated but to still allow terminal operators to enter commands.

### Prevent terminal commands

- 4** Prevents terminal operators from entering commands when their terminal is in initial or command mode. Command interrupt mode terminals are allowed to enter commands.

If the last executing user program is terminated by your issuing the Cancel command and the Suspend Users command is in effect, the Suspend Users command is no longer in effect (automatically cleared by program termination). However, the Suspend Initiation command is still in effect and must be cleared via the Resume Initiation command.

### Caution suspending program on BSCA line

Care should be used when suspending programs that are currently communicating over a BSCA line. If resumption does not occur within a specific period of time (specified during Assignment on the BSCALINE statement or the maximum delay count specified for the terminal, whichever is less), a T/P error may occur preventing further communication by the program using that line. This program must then be terminated or issue its own error retry to resume execution.

## HOW TO RESUME REQUESTS/EXECUTION/INITIATION OF PROGRAMS

Use this command to:

- Resume execution of all application programs.
- Resume execution of one application program.
- Permit initiation of additional application programs.
- Permit accepting terminal operator commands.

**Resume command**

Command		Additional Information								
{ RESUME } R	Ø	<table> <tr> <td>USERS</td> <td><b>1</b></td> </tr> <tr> <td>task ID, program name</td> <td><b>2</b></td> </tr> <tr> <td>INIT</td> <td><b>3</b></td> </tr> <tr> <td>COMMANDS</td> <td><b>4</b></td> </tr> </table>	USERS	<b>1</b>	task ID, program name	<b>2</b>	INIT	<b>3</b>	COMMANDS	<b>4</b>
USERS	<b>1</b>									
task ID, program name	<b>2</b>									
INIT	<b>3</b>									
COMMANDS	<b>4</b>									

- 1** Resume execution of all suspended application programs.
- 2** Resume execution of one particular suspended application program.
- 3** Allows program initiation to resume. However, if a Suspend Users command is in effect, you must either:
  - Specifically resume or cancel each suspended program.
  - Enter a Resume Users command.

Otherwise a Resume Init command will be rejected by CCP.
- 4** Permits all command-capable terminals not currently in use by an application program to enter commands or program requests.

**Resume all programs**

**Resume one program**

**Allow program initiation**

**Permit terminal commands**

## HOW TO CHANGE THE STATUS OF A TERMINAL

Use this command to change the status of a terminal from online to offline or offline to online. The CCP sends a message informing the terminal operator of the change in status of the terminal. This message is sent only to command-capable terminals on a non-switched line. The message is never sent to CPUs. The CCP does not accept this command if the terminal is under control of an application program.

**Vary command**

If a non-command-capable terminal is online, it is available for use by application programs. If it is offline, it is not available for use. CCP does not communicate with an online, non-command-capable terminal except at the direction of an application program.

If a command-capable terminal is online and not currently being used by an application program, CCP allows input from that terminal. If the terminal is offline, input is not allowed nor is the terminal available for use by an application program.

Command		Additional Information
{ VARY } V	b	{ symbolic terminal name } <b>1</b> { ,ON } <b>2</b> { 'terminal ID' }                    { ,OFF } <b>3</b>

- 1** Specifies the terminal to be placed online or offline.
- 2** The specified terminal is placed online. The terminal is enabled for initial mode input if it is capable of entering commands. Use ON when a terminal is offline and you want to allow communication with it.
- 3** The specified terminal is placed offline. Communication with the terminal is terminated. In addition, if the terminal is on a switched line, the line is disconnected; if there are any online command terminals on the switched line, the line is reenabled to allow a terminal to call in.

### HOW TO CHANGE THE NAME OF A TERMINAL

Assign command

Assign alternate terminal

Doing business as name

Use this command to change the name of a terminal or make available a new symbolic name of a terminal. You can use this command to assign an alternate terminal when a particular terminal is inoperative.

If the terminal is a data terminal, the new name becomes the *doing business as name* of the terminal. If the terminal is a command terminal, the new name becomes an available name that can be used to reference the terminal. The *doing business as name* is controlled by the terminal operator's use of the Name command. When the terminal operator uses the Name command to change the *doing business as name* of the terminal, CCP prints a message on the console informing you of the name change.

Command		Additional Information
{ ASSIGN } A	b	<b>1</b> <b>2</b> <b>3</b> symbolic terminal name, 'terminal ID' [stt index number]

- 1** A terminal can be referenced by one or more symbolic names. This command does not cancel any symbolic names; it provides an additional name that can be used to reference a terminal.
- 2** This command is rejected if you try to assign a name to different types of terminals. For example, you cannot assign a symbolic name to a BSCA terminal if the same name is being used by an MLTA terminal. Examples of invalid combinations are:

MLTA terminal . . . . .	BSCA terminal
Switched line terminal . . . . .	Non-switched line terminal
1050 . . . . .	Non-1050
3270M1* (3277M1 or 3275M1) . . . . .	3270M2* (3277M2 or 3275M2)
3270 . . . . .	3735
CPU . . . . .	3270 (BSCA only)

\* M1 (small screen), M2 (large screen)

- 3** The STT (Switched Terminal Table) index number is used to change telephone numbers for terminals on a switched line. Each STT index number refers to a telephone number defined during Assignment. See the output from the Assignment List program to determine which STT index number to use.

## Telephone number

### HOW TO RECOVER FROM TERMINAL ERRORS

Use this command to tell the CCP what additional error recovery procedures to take when a terminal is in CCP error recovery.

## ERP command

Your action depends on whether or not the terminal is under control of an application program. If the terminal is under control of an application program, you will receive a message issued by the IOCS and CCP indicating the application program has the responsibility of determining what action to take. If the terminal is not under control of an application program, you will receive an IOCS message and a message from the CCP indicating you may take some action. You can respond to the CCP message using this command.

Command		Additional Information
{ ERP P }	b	'terminal ID' { RETRY <b>1</b> BYPASS <b>2</b> }

- 1** Tells the CCP to reissue the failing operation to the terminal.
- 2** Tells the CCP to proceed to the next instruction and bypass the failing operation.

## Reissue failing operation

## Bypass failing operation

Whenever CCP detects that an error occurred while communicating with a terminal, a message is printed at the console informing you of the error. In addition, if the terminal does not currently belong to an application program, the terminal is placed in CCP error recovery. You are informed of this with the message:

#### 416 'xx' IN CCP ERROR RECOVERY

While in CCP error recovery, no input or output data transfer is allowed to the terminal. Therefore, there can be no communication to or from the terminal until you respond to the error condition.

If you do not wish to attempt error recovery, you may:

## Responding to error conditions

1. Issue a Vary command to place the terminal offline.
2. Issue a Test command to initiate an online test to the terminal to further analyze the error condition at the terminal (see *How to Perform System Operator Initiated MLTA Online Tests*).

### HOW TO SAVE TRACE TABLE INFORMATION

Use this command to:

## Trace command

- Write CCP trace data to disk.
- Turn on the in-core MLTA/BSCA trace. If the MLTA or BSCA IOCS detects a permanent error on a T/P line while the MLTA or BSCA trace is on, the contents of the in-core trace table are written to the system printer.

Turn on trace any number of times

Solve hardware or program problems

Print trace using \$CCPDD

You may turn on CCP trace any number of times during the execution of CCP. However, each time you issue the Trace On command, CCP starts entering data at the beginning of the trace dump area and overlays any previous trace data.

This command may be used when there are hardware or program problems and you or the IBM Field Engineer are attempting to solve the problem.

The CCP trace dump area can be written out on the line printer using the program, \$CCPDD, after the CCP has gone to end of job.

Command		Additional Information
{ TRACE } E	b	{ ON } <b>1</b> { ,CCP } <b>3</b> { OFF } <b>2</b> { ,MLTA } { ,BSCA }

- 1** On activates the appropriate trace.
- 2** Off turns off the appropriate trace.
- 3** Specifies which one of the traces you want to turn on.

#### HOW TO PERFORM SYSTEM OPERATOR INITIATED MLTA ONLINE TESTS

Test command – MLTA terminal tests for 1050, 2740/2741, and CMCST

Use this command to initiate an MLTA terminal online test. If a terminal operator suspects that his terminal is not operating correctly, he can ask you to initiate an MLTA terminal online test. When starting a test, you must specify that either all tests are to be run or a specific test number is to be run. After the test the terminal operator can compare the actual results with the correct test data to identify the problem. See *Appendix E. Online Tests* for a description of the tests.

Command		Additional Information
{ TEST } T	b	{ symbolic terminal name } { ,n } <b>1</b> { ,ALL } <b>2</b> { ,LOOP } <b>4</b> { 'terminal ID' } { ,STOP } <b>3</b>

MLTA test number

All MLTA tests

Stop MLTA test

Run MLTA test continuously

- 1** Specifies the test number to be run (2 through 6).
- 2** Indicates that all tests for a particular terminal are to be run.
- 3** Tells the CCP to stop a looping test currently being run on the specified terminal.
- 4** Indicates that the test for the particular terminal is to be run continuously, until another Test command is entered specifying Stop. If Loop is specified, only a single test may be run (All is not valid). An error on the terminal will stop any online test including a looping test.

## HOW TO PERFORM SYSTEM OPERATOR INITIATED BSCA ONLINE TESTS

Use this command to initiate a BSCA online test to another CPU. When starting a test, you must specify the test number, the message, and the number of times you want the message to be repeated. See *Appendix E. Online Tests* for a description of the tests.

### Test command BSCA CPU

Command		Additional Information
{ TEST } { T }	b	{ symbolic terminal name } , { <b>1</b> } , { <b>2</b> } <b>3</b> msg { 'terminal ID' } , { n } , { cc }

- 1** Specifies the test number to be run. The valid entries for n are 0, 1, 6, or 14.
- 2** The number of times the message is to be transmitted. The valid entries for cc are 01 through 99.
- 3** The message text to be sent for tests 0 and 1 (limited to 60 characters).

BSCA test number

BSCA message transmitted

BSCA message text

When performing these tests (which can run only to CPUs), you must assume that the program on the remote CPU handles the 0, 1, 6, or 14 online tests.

*Note:* When CCP is the control station, only test 0 is valid for CPU tributaries.

## HOW TO CANCEL AN APPLICATION PROGRAM OR THE CCP

### Cancel command

Use this command only when the CCP or an application program appears to be malfunctioning. This command causes 1) a particular program or 2) all programs and the CCP to immediately terminate processing.

Command		Additional Information
{ CANCEL } { C }	b	{ task ID, program name } <b>1</b> { CCP } <b>2</b>

- 1** This immediately stops all processing for one program and frees the resources allocated to it. Some application programs allow multiple copies of the program to reside in main storage at the same time. Therefore, you must enter the task ID and the program name to cancel the correct application program task. You may have to issue the Display Users command to determine the task ID and the program name prior to issuing this command.
- 2** This immediately stops processing of all application programs and then the CCP terminates itself, performing a controlled cancel.

Cancelling one program

Cancel CCP

In either case, all open disk files for each program are closed and all pending T/P I/O operations are purged.

## HOW TO STOP THE CCP SYSTEM

### Shutdown command

This command tells CCP to terminate after the application programs have completed processing.

Command	Additional Information
SHUTDOWN	none

When the command has been accepted, CCP will not accept commands or program requests from terminal operators unless the terminal is in command interrupt mode. All currently running programs are notified about the Shutdown and allowed to complete processing unless you cancel them. Any programs that are on queue are loaded and processed.

It is the responsibility of each application program to recognize that a Shutdown indication has been given to it after the command has been entered. Long running programs should check for this condition or should not be running when the command is entered.

Each program queued for execution is notified of the shutdown request when it does its initial T/P I/O operation after it has been loaded and control has been given to it initially.

### Determining status during shutdown

You can enter other commands as long as the CCP is running. You can enter the Display Queue command to determine the number of programs waiting to be initiated or the Suspend command to prevent initiation of programs.

When all processing of application programs is complete, CCP terminates itself and the EJ halt appears in the message display unit. The system is now ready for the CCP to be loaded again or for other System/3 programs to be run.

*Note:* If a number of programs are queued for execution or a large indexed file has had records added to it (causing a key sort), a significant amount of time may elapse between the Shutdown command and end of job for CCP.

## Chapter 5. Entering Terminal Operator Commands or Program Requests from the Console

### COMMANDS

The commands available to you when using the console as a terminal are:

/Q (Queue)  
/NOQ (No-queue)  
/FILE

You must use the same format that the terminal operator uses to enter commands when you enter commands through the console. That is, use a slash (/) preceding the command. See the *IBM System/3 Model 10 Disk System Communications Control Program Terminal Operator's Guide*, GC21-7580, for an explanation of the Queue, No-queue, and File commands.

/command

When the console is used for operations normally performed from a terminal:

- The console is always signed-on and does not sign-off.
- The name of the console is always CONSOL.
- The console does not need a data mode escape facility because the system operator can always enter commands to the system.

### PROGRAM REQUEST

When you enter a program request through the console, precede the name of the program with a period (.). After you have entered the program request, another program request or terminal command cannot be entered until the program begins or, if input data was entered, until that data has been read by the program.

Program request

Three possible actions can occur after a program name is entered:

- The program is started immediately.
- The program is placed on a queue (waiting list) until the resources are available. You cannot remove a program request from the queue.
- The program request is rejected.

Program Name		Additional Information
.program-name	Ø	input-data

If the program request is queued, the console is still available to you to enter system operator commands, to receive messages from CCP, user programs, or terminals, and to respond to outstanding reply requests.

When entering program requests, the File command, the No-queue command, or the Queue command, you will get responses from CCP the same as a terminal operator will get. These messages are documented in the *IBM System/3 Model 10 Disk System Communications Control Program Terminal Operator's Guide*, GC21-7580. You should be familiar with these messages.



Messages unique to the system operator from the commands and program requests are documented in *Appendix B. Messages*.

The application program, a command terminal, a disk system routine, or the CCP can issue a message. These messages are written at the console in one of two formats. Each message begins on a new line.

**PROGRAM MESSAGE**

The application program issues this message. The format of the program message is:

**Program message**

rt:name/nnn text

- r An asterisk (\*) indicates the message requires a reply. A blank indicates no reply is required.
- t The task-ID of the application program. Use it as a reference identifier when making replies and issuing certain commands.
- name The name of the application program.
- nnn A reference number used for clarification of the text that follows.

Reference Number	Text	Message Type
	User program text	Output only
990	Message text	Output only
991	iihh	Halt only
992	iiss	Message only
993	iihss	Message and halt

text The application program message.

- The abbreviation ii represents the major and minor identifiers. ii
- The abbreviation hh represents the halt code characters. This is the halt that would appear in the message display unit if the application program were not running under CCP. hh
- The abbreviation ss represents the subidentifier. ss

The iihss can be found in the *IBM System/3 Disk System Halt Procedure Guide, GC21-7540*.

A user program is not permitted to halt via the disk system management halt facility except for specific halts representing temporary I/O error conditions. Temporary I/O error halts appear in the message display unit. Other halts issued by or for a user task cause CCP to cancel that user task with a 7F task completion code.

## Handling Halts Issued During the Operational Stage

The halts that you are familiar with, when operating a System/3 without the CCP, are handled very differently when the CCP is in control of the System/3. Because of telecommunications system must be able to respond to events in its network whenever they occur, the CCP avoids halting whenever possible.

### Halts are handled differently under CCP

The following information applies only to halts issued in the CCP program level. If you are operating a System/3 with the Dual Programming Feature, halts in the opposite level from CCP occur as they would without CCP. During Startup of CCP, before communications lines are opened, halts are handled just as they are without CCP. But at the completion of Startup, when the communications network has been enabled, CCP intercepts all halts issued through the system halt facility and treats them as follows.

#### *All Halts Other Than Those Indicating an Error on a Unit Record Device*

The halt is not displayed in the message display unit and the system does not stop. A CCP message is logged at the console to indicate the halt code issued (message number 991 or 993). The halt was issued because of an error on the part of a user program. Either the program issued the halt itself (user programs running under CCP are not permitted to issue halts), or the halt was issued by a system support routine because of an error in the user program. In any case, the user program is cancelled by CCP because of the error, causing message 526 to appear on the console after the message identifying the halt. In the message 526, the program termination code CMP-7F appears, indicating the user task was cancelled due to the halt.

#### *Halts For Unit Record Device Errors*

When an error occurs in the operation of a unit record device, the halt is printed on the console (unless the error is on the console), and displayed in the message display unit; the machine (the CCP program level in a DPF system) stops. After you clear the error, press HALT RESET/START. You do not set an option in the Address/Data switches to determine the action the system takes after you reset the halt; when the halt is reset, the CCP always takes a specific action for each halt. The options taken are defined in the following table. If the device is not made ready after the error condition is cleared, an I/O ATTENTION light occurs, waiting for the device to come ready.

Halt	Reason	CCP Option Taken
C1	1442 read check	1 – retry
C2	1442 read check	1 – retry
C3	1442 punch failure	1 – retry
C4	1442 punch failure	1 – retry
C5	1442 hopper check	1 – retry
C6	1442 read check	1 – retry
C7	1442 punch check	1 – retry
C8	1442 punch check	1 – retry
C9	1442 transport check	1 – retry
CA	1442 feed check	1 – retry
F0	MFCU feed check	1 – retry
F1	MFCU feed check	1 – retry
F2	MFCU hopper check	1 – retry
F3	MFCU read check	1 – retry
F4	MFCU punch check	1 – retry
F5	MFCU punch invalid	0 – ignore
F6	MFCU print check	0 – ignore
P1	Printer carriage check	1 – retry
F3	Printer forms check	1 – retry
P5	Printer synchronous check	0 – ignore
P6	Printer incrementer failure check	1 – retry
P7	Printer thermal check	0 – ignore
P8	Printer print check	1 – retry
PC	Unprintable characters	0 – ignore
PE	Printer chain check	1 – retry
PF	Printer chain check	1 – retry
øE	5471 printer malfunction	1 – retry
øF	5471 forms error	1 – retry
øH	5471 hardware malfunction	0 – ignore
øJ	5471 hardware malfunction	0 – ignore

#### *Halts Not Issued via the System Halt Facility*

Halts not issued through the system halt facility cannot be intercepted by CCP. If any such halt occurs, the halt is displayed in the message display unit and the machine (the CCP program level in a DPF system) stops.

If a U– halt occurs in the CCP program level, it represents an error on the part of CCP (though it may have been caused by a severe error committed in a user program). The appropriate action to take when a U– halt appears in the CCP program level during the operational stage of CCP is explained in *Chapter 7. CCP Halts*.

#### **YOUR REPLY TO A PROGRAM MESSAGE**

#### **Reply message**

You must make a reply to a message when the first position of the message line contains an asterisk. The Display Replies command can be used to determine if any tasks are waiting for your reply.

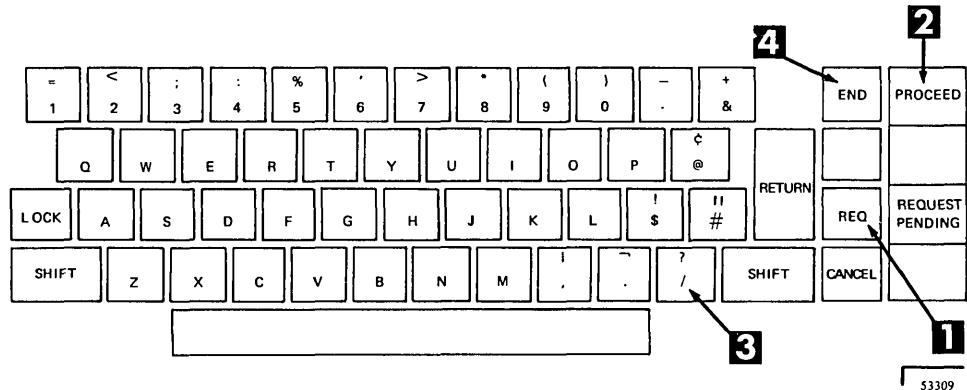
## Example of reply

The following is an example of a reply message:

1/sample text  
↑↑  
Your reply message  
↑  
Slash  
Task-id

## Reply procedure

Use the following procedure to respond to a message:



1. Press the REQ key. **1**
2. Wait for the PROCEED light to turn on. **2**
3. Key in the one character task-ID. This indicates the task to which this reply is being made and is the same character that was printed in the second character position of the output message that requested the reply.
4. Key the single character slash (/). **3**
5. Key the text of the reply.
6. Press the END key. **4**

## CCP MESSAGE

### CCP message

The CCP message is issued by CCP in the following format:

rt/nnn text

- r      An exclamation point (!) indicates that an action is required to be taken. For example, it may mean that a command should be issued or a phone number dialed. A blank indicates no action is required.
- t      The task ID identifies the system task under which the message was issued. Use the task ID as a reference identifier when making replies. The task IDs are:

C = Communications manager  
P = Command processor  
T = Terminator

- nnn        A CCP reference number used for clarification of the text that follows.  
          See *Operational Stage Messages* for a description of the messages.
- text       The CCP message.

**MLTA MESSAGE**

**Permanent Error Message**

All permanent line and terminal errors that are logged as a message on the console are also logged in the MLTA error file. A complete description of the MLTA messages are contained in the *IBM System/3 Model 10 Disk System Multiple Line Terminal Adapter RPQ Program Reference and Component Description Manual, GC21-7560*. This message is issued as a CCP message with reference number 990; the text of the message has the following format:

**MLTA permanent error message**

MLxxLL,TTTT,OO,SSSSSS EEEEEEEEE EEEEEEEEE

- ML                                Indicates an MLTA error.
- xx                                Indicates the error type.  
                                  xx=LN is line error  
                                  xx=TM is terminal error
- LL                                The line number in decimal.
- TTTT                              The terminal address characters in hexadecimal. If the line is not polled, this field contains '0000'. Otherwise, it contains the terminal address characters.
- OO                                Operation code in hexadecimal.
- SSSSSS                            The status bytes in hexadecimal (HDB positions 0, 6 and 7).
- EEEEEEEEEE EEEEEEEEE        One or two abbreviated error messages.

**First Message Area**

LOOP FAIL

INST NOOP

TIMEOUT, DATA CHK, OVERRUN, TERM INTR,  
or LOST DATA

XMIT ABRT or RCV ABRT

ABNL RESP\*

### Second Message Area

Blank

MOD NRDY,LINE NRDY, or blank\*

RCV ABRT,XMIT ABRT, or blank\*

MOD NRDY,LINE NRDY, or blank\*

Blank

\* May be replaced by SDR ERROR if the terminal address is not found in the SDR table.

The abbreviated error message meanings are:

Abbreviation	Message
LOOP FAIL	Loop test failure
DATA CHK	Data check
TIMEOUT	Timeout
OVERRUN	Overrun
XMIT ABRT	Transmission aborted
RCV ABRT	Reception aborted
LOST DATA	Lost data
ABNL RESP	Abnormal response
MOD NRDY	Modem not ready
LINE NRDY	Line not ready
INST NOOP	Instruction no-op
TERM INTR	Terminal interrupt
SDR ERROR	Terminal address not found in SDR table (error not logged in OBR)

### Online Test Write Error Message

#### Online test write error message

If a permanent error occurs when the requested test message is sent to the terminal, the following actions are taken.

1. A message is sent by the IOCS to the system operator. This message is issued as a CCP message with reference number 990; the text of the message has the following format:

MLOLØLL,TTTT,CC

- ML Indicates an MLTA error.
- OL Indicates an online test write error.
- Ø Blank.
- LL Line number in decimal.

TTTT The terminal address characters in hexadecimal. If the line is not polled, this field contains '0000'. Otherwise, it contains the terminal address characters.

CC Completion code for the write error.

2. The CCP makes a second attempt to write to the terminal if it is a 1050. This message is issued as a CCP message with reference number 990; the text of the message has the following format:

OLT WRITE ERROR nl

nl New line (carrier return).

### BSCA MESSAGE

Completion codes are logged on the console. They are issued as a CCP message with reference number 990; the text of the message has the following format:

BSCA LINE—(1 or 2), CODE cc—(description),  
TERMINAL ADDRESS—(characters)

cc = Completion code

characters = Polling or addressing characters

terminal address = Printed for control stations only

Completion codes are described in the *IBM System/3 Model 10 Disk System Multiline/Multipoint Binary Synchronous Communications Reference Manual*, GC21-7573.

### BSCA Online Test Results

Test results are logged on the console. Results are logged in one of two formats depending on whether or not the test message (not the test request) was transmitted or received.

#### *Test Message Transmitted*

This message is issued as a CCP message with reference number 990; the text of the message has the following format:

\* BSC ONLINE TEST, LINE {1 or 2} [TERMINAL ADDR HEX hex]

MESSAGE TYPE tt, MESSAGE COUNT cc

ACK RCVD      NAK RCVD      TIMEOUT      INVLD MSG

xx              xx              xx              xx

\* END ONLINE TEST

### BSCA message

### BSCA test results

### Message transmitted



TERMINAL ADDR HEX hex identifies the terminal to which the test message was sent if the logging station is a control station.

tt identifies the test message type.

cc is the number of times the test message was to be transmitted.

ACK RCVD xx is the number of times ACK was received as a reply to the test message.

NAK RCVD xx is the number of times NAK was received as a reply to the test message.

TIMEOUT xx is the number of 3-second receive timeouts recorded during the online test by the BSCA.

INVLD MSG xx is the number of invalid replies received in response to test messages sent.

#### *Test Message Received*

### **Message received**

This message is issued as a CCP message with reference number 990; the text of the message has the following format:

\* BSC ONLINE TEST, LINE {1 or 2} [TERMINAL ADDR HEX hex]

MESSAGE TYPE tt, MESSAGE COUNT cc

TXT RCVD	DATA CHK	TIMEOUT	INVLD MSG
xx	xx	xx	xx

\* END ONLINE TEST

TERMINAL ADDR HEX hex identifies the terminal that transmitted the test message if the logging station is a control station.

tt identifies the test message type.

cc is the number of times the test message was to be transmitted.

TXT RCVD xx is the number of times the test message was received correctly.

DATA CHK xx is the number of data checks recorded during the online test by the BSCA.

TIMEOUT xx is the number of 3-second received timeouts recorded during the online test by the BSCA.

INVLD MSG xx is the number of test messages received incorrectly for which a data check or timeout was not recorded.

Any halts that appear in the message display unit during running of the CCP other than the U— halt can be found in the *IBM System/3 Disk System Halt Procedure Guide*, GC21-7540.

#### U— HALT IN USER'S PROGRAM LEVEL DURING STARTUP

A U— halt in the user's program level indicates an unrecoverable disk error has occurred. If the HALT RESET/START key is pressed, a UE subhalt appears in the message display unit. A core dump should be taken at this point and saved for IBM Field Engineering. Several addresses are saved in core when this halt occurs and are available to IBM Field Engineering for aid in determining the cause of the trouble. If the HALT RESET/START key is pressed again when the UE subhalt appears, Startup terminates CCP and returns control to the disk system.

#### Startup halt

#### U— HALT DURING DISPLAY FORMAT GENERATION

When the U— halt occurs in the message display unit during a display format generation, it indicates that an error was encountered during the generation. Perform the following:

#### Display format generation halt

1. Press HALT RESET/START.
2. Subhalt F1 appears.
3. Enter 0 in the Address/Data switches to place the generated display format in the library or enter 3 to cancel the job.

#### U— HALT DURING THE CCP OPERATIONAL STAGE

When the U— halt occurs for the CCP level during the operational stage, it indicates a disaster error condition. Perform the following to obtain a core dump for problem determination:

#### Operational stage halt

1. Press HALT RESET/START.
2. A subhalt occurs. Record the subhalt for IBM Field Engineering.
3. If running under DPF and the other level is processing, you should wait until the other level is at end of job before taking a core dump.
4. Press HALT RESET/START to obtain the dump. If this fails use the Stand-Alone Dump Program described in *Appendix D. Debugging Aids*.
5. Perform the IPL process before starting the next job.

## Generation halts

### U– HALTS FROM \$CC1PP

#### Subhalt PU Unable to Allocate System Punch Device

##### Subhalt PU

Reason – The system punch device could not be allocated. Either it is in use by the other program level in a DPF system, or the system has an internal error.

Recovery – Perform one of the following:

- If the device is in use by the other program level, run \$CC1PP after the other level completes processing and goes to end of job.
- If the system has an internal error, contact IBM Field Engineering for program support.

#### Subhalt FE Permanent Disk File Error

##### Subhalt FE

Reason – In reading from the file \$SOURCE, which contains the output from the first pass of Generation, an uncorrectable disk error was encountered.

Recovery – 1. Run the alternate track assignment program.  
2. Delete the \$SOURCE file that you were using.  
3. Begin Generation again with the

// LOAD \$MPXDV,## step.

### U– HALT FROM \$CC1BF

#### Subhalt AF Permanent Disk File Error

##### Subhalt AF

Reason – In writing the initial form of the file \$CCPFILE, an uncorrectable disk error occurred.

Recovery – Run the alternate track assignment program and then rerun \$CC1BF.

### U– HALT DURING ASSIGNMENT BUILD PROGRAM

##### Assignment build halt

When the U– halt occurs in the message display unit during the assignment build program, it indicates one of the previous assignment sets was not processed successfully. Refer to the assignment diagnostics for corrections. Perform the following:

1. Press HALT RESET/START.
2. The A1 subhalt appears if SYSLOG is off.

3. Press **HALT RESET/START** to go to end of job. You must enter 3 in the Address/Data dials.
4. Review the message from assignment, correct any errors and rerun those sets containing errors.

#### **BLANK E**

- Reason** — A hardware malfunction occurred on the console. Contact IBM Field Engineering for hardware support if the halt continues. **BE**
- Recovery** — Retry, wait for the **PROCEED** light, and rekey the operation.

#### **BLANK F**

- Reason** — An end of forms condition occurred on the console or the paper pressure lever is not engaged. **BF**
- Recovery** — Perform one of the following:
- Place new form in the console and press **HALT RESET/START**.
  - Continue by pressing **HALT RESET/START**. The halt will recur until forms are placed in the console.
  - Engage the paper pressure lever and press **HALT RESET/START**.

#### **BLANK H**

- Reason** — A hardware malfunction occurred on the console. The printer is out of order and needs service. Contact IBM Field Engineering for hardware support. **BH**
- Recovery** — Press **HALT RESET/START** and CCP will ignore this operation if it continues.

#### **BLANK J**

- Reason** — A hardware malfunction occurred on the console. The printer is out of order and needs service. Contact IBM Field Engineering for hardware support. **BJ**
- Recovery** — Press **HALT RESET/START**.

## INCREMENTING HALT 170 - 179

4

**Reason** — This halt indicates that CCP has no work to perform and is awaiting input from a teleprocessing device or the system console. Each time CCP receives an interrupt (hardware generated) from a teleprocessing device or the console which requires CCP processing, the halt is incremented by one. The range of the halt is 170 through 179.

This halt appears in the message display unit if the MINRES-NO parameter was specified on the \$EGEN statement during CCP Generation.

**Recovery** — None. Pressing HALT RESET/START only increments the halt by 1. Options are not available and error codes are not logged.

## Glossary

**BSCA.** The Binary Synchronous Communications Adapter is a special feature that allows the system to function as a point-to-point or multipoint processor terminal. Operation is half duplex, synchronous, and serial by bit, serial by character over either non-switched or switched voice grade or better two-wire, four-wire, or wide band communication facilities.

**command interrupt mode.** The operating mode of a terminal following data mode escape until the program execution is resumed by a run command (the terminal reenters data mode) or until the program is cancelled by a cancel command (terminal enters command mode).

**command mode.** The operating mode of a terminal following a successful sign-on, up to and including the program request. Following program termination, a terminal returns to command mode until another program request is made or until sign-off.

**command terminal.** A terminal that is capable of commanding CCP services related to requesting a program. Terminals are designated command or data terminals at assignment time.

**data mode.** The operating mode of a terminal when it is under control of an application program, until the program terminates, the terminal is released by the program, or the data mode escape characters are entered. While in data mode, a terminal is not in direct communication with the CCP.

**data mode escape.** A special CCP function, consisting of a unique string of six characters entered at a terminal while the terminal is in data mode. The data mode escape function interrupts the execution of the application program and places the terminal in command interrupt mode.

**data terminal.** A terminal that is not capable of commanding CCP services. A data terminal is always either in stand-by mode (not polled for input by the CCP) or in data mode (under control of an application program).

**initial mode.** The operating mode of a command terminal before sign-on at the terminal has been accepted by the CCP.

**MLTA.** The Multiple Line Terminal Adapter is a special feature that allows the system to function as a processor on a point-to-point and multipoint network. Operation is asynchronous over either non-switched or switched voice grade or better communication facilities.

**MRT program.** (Multiple Requesting Terminals program) – A program written to handle additional requests for it from command terminals while it is still processing an earlier request.

**non-switched line.** A connection between a remote terminal and a computer that does not have to be established by dialing.

**switched line.** A communication line in which the connection between the computer and a remote station is established by dialing. Synonymous with dial line.

**symbolic terminal name.** The identification of a terminal used by the CCP and the system operator to refer to a specific terminal. A user defined symbolic terminal name is assigned to each terminal during the CCP Assignment stage using the TERMNAME statement. The symbolic terminal name CONSOL refers to the 5471 printer-keyboard. A symbolic terminal name of blanks refers to the one and only requesting terminal of an application program (not MRT program).

**system task.** A unit of work for the processing unit from the standpoint of the CCP, consisting of a CCP function (as opposed to a user application, or user task) that must be performed by the CCP, such as communications management.

**task ID.** Each program running in the system has an internal ID associated with it called a task ID. Because multiple copies of the same program may run concurrently each copy will have a different task ID assigned to it.

**terminal ID.** The two character identification assigned to an actual terminal assignment.

**terminal session.** The duration of time that a terminal operator is communicating with the CCP. It begins at sign-on and ends at sign-off.

**user task.** A unit of work for the processing unit from the standpoint of the CCP, consisting of a user program (as opposed to a system function, or system task) that must be executed by CCP.

**work session.** The duration of time that the terminal operator is permitted to communicate with CCP. It begins when you start CCP and ends when you shutdown the CCP.

**Messages**

Messages are issued from all stages of CCP. Messages in this appendix are given in the following order:

1. Startup messages (SUxxx)
2. Operational stage messages (xxx)
3. Trace table or core dump to printer program messages (DPxxx)
4. User sign-on security messages (AUxxx)

Related CCP publications contain the messages issued by other parts of CCP. To help you locate a particular message, in the event you are involved in running all parts of CCP, the following chart tells you the message format, what part of CCP issued the message, and which manual it is described in.

Format	Description	Manual
AUxxx	User sign-on security	GC21-7581
Axx	Accepted terminal operator command	GC21-7580
CAxxx	Assignment build	GC21-7588
CLxxx	Assignment list	GC21-7588
CCxxx	Generation	GC21-7588
CGxxx	Display format generation diagnostics	GC21-7579
DPxxx	Trace dump or core dump to printer	GC21-7581
Exx	Error in terminal operator request	GC21-7580
Nxx	Assembler M-notes	GC21-7579
Rxx	Rejected terminal operator request	GC21-7580
SUxxx	Startup	GC21-7581
Sxx	System sent unsolicited message to terminal	GC21-7580
U-	U- halts displayed in message display unit	GC21-7581
xxx	Operational stage (3 decimal digits) A program termination code (2 hexadecimal digits) may appear in the operational stage message 526. The codes, reasons, and recovery are described in	GC21-7581  GC21-7579

*IBM System/3 Model 10 Disk System Communications Control Program*

*Terminal Operator's Guide, GC21-7580*

*System Operator's Guide, GC21-7581*

*System Reference, GC21-7588*

*Programmer's Reference, GC21-7579*



## Startup messages

## STARTUP MESSAGES

### SU001

#### SU001 SYSTEM/3 CCP

*Reason* – This is the first message issued upon initiation of the CCP. It tells you that CCP initiation has started.

*Recovery* – None

### SU002

#### SU002 \$CCPFILE ON UNIT \*\*

*Reason* – This message tells you the standard default unit from which \$CCPFILE information will be used.

*Recovery* – None

### SU003

#### SU003 DEFAULT SET = \*

*Reason* – \$CCPFILE was found to have the designated set ID validly assigned as the default set on the unit that the operator selected either using the default or an explicit specification.

*Response* – None

### SU004

#### SU004 SPECIFY UNIT FOR \$CCPFILE

*Reason* – The unit from which CCP was initiated does not contain \$CCPFILE, therefore, you must specify the unit that does contain the file.

*Response* – Enter the disk unit (R1, F1, R2, or F2) to select the unit where \$CCPFILE can be found.

### SU009

#### SU009 \*ERROR\* INVALID RESPONSE

*Reason* – The CCP is unable to recognize your response.

*Recovery* – Perform one of the following depending on whether or not the PROCEED light is on.

1. On – Enter the correct information. The CCP assumes that the error is obvious and is waiting.
2. Off – Wait for another message from the CCP explaining what the error was or what should be done to correct the error.

### SU010

#### SU010 \*ERROR\* OTHER PROGRAM LEVEL ACTIVE

*Reason* – The non-CCP program level on a DPF system was active when you attempted to start the CCP.

*Recovery* – End the job in the other program level or wait for the 'EJ' halt to appear in the other level message display unit before starting the CCP.

**SU011 ANY SPECIFICATIONS?****SU011**

*Reason* — This message is asking you if there are any changes to the standards previously printed.

*Recovery* — Perform one of the following:

1. Press the END key if no specifications are to be given. The CCP will continue.
2. Enter Y or YES to change specifications by having the CCP ask you questions.
3. Enter specifications as keywords. One keyword may be entered on each input line. An asterisk indicates the keyword must be entered with nothing else on the input line. Those keywords without an asterisk must be followed by a dash and a valid value. Enter one keyword per keyed line.

UNIT—	Unit for \$CCPFILE
CHANGE—	Yes or no
MAXEUP—	Maximum number of user programs
MINUPA—	Minimum user program area
MINTPBUF—	Minimum T/P buffer area
PASSWORD—	CCP sign-on password
SET—	ID character
TRACEBLK—	Size of in-core CCP trace table (Non-zero value sets disk trace on)
TRACEMLTA—	T/P activity (One line or all)
CANCEL *	
SUPPRESS*	
OFFLINE*	
TRACEMLMP*	

Following keyword input, press the END key without any keyed input to signal CCP to continue beyond this point. The N, NO, Y, or YES responses become invalid once a keyword is entered.

**SU012 \*ERROR\* INCOMPATIBLE USE OF DUAL PROGRAMMING FEATURE****SU012**

*Reason* — This message is issued because either disk system management was generated for DPF and CCP was not, or vice versa. Both must use DPF or both must not use DPF.

*Recovery* — Inform the system manager of the incompatibility. It will be necessary to generate one to match the other.

## SU013

### SU013 \*ERROR\* \$CCPFILE INFORMATION INVALID

*Reason* – The file, \$CCPFILE, does not now contain valid information that should have been entered by \$CCPAS.

*Recovery* – Perform the following:

1. Scratch \$CCPFILE, using \$DELETE.
2. Initialize \$CCPFILE using \$CC1BF and \$CCPAS or restart the CCP with a valid and different \$CCPFILE unit specification.
3. Inform the system manager that this message occurred. If the \$CCPFILE chosen was expected to be valid, then he should determine how the invalid information was written into this particular file to prevent its reoccurrence. The programmer may want to work with the system manager in determining what has destroyed a portion of this file.

## SU014

### SU014 INITIALIZE \$CCPFILE WITH PROGRAM \$CC1BF AND ENTER ASSIGNMENT SETS

*Reason* – This message tells you how to recover from message SU013 \*ERROR\* \$CCPFILE INFORMATION INVALID.

*Recovery* – Perform the following:

1. Scratch \$CCPFILE, using \$DELETE.
2. Initialize \$CCPFILE using \$CC1BF and \$CCPAS or restart the CCP with a valid and different \$CCPFILE unit specification.
3. Inform the system manager that this message occurred. If the \$CCPFILE chosen was expected to be valid, then he should determine how the invalid information was written into this particular file to prevent its reoccurrence. The programmer may want to work with the system manager in determining what has destroyed a portion of this file.

## SU015

### SU015 \*ERROR\* NO ASSIGNMENT SETS IN \$CCPFILE

*Reason* – The \$CCPFILE you used was initialized with the program \$CC1BF, but no assignment set was entered in the file by \$CCPAS.

*Recovery* – Perform the following:

1. Enter an assignment set into the chosen \$CCPFILE using the program, \$CCPAS.
2. Tell the system manager that if an assignment set has not been defined, he must define one or more assignment sets.

**SU020 DEFAULT SET NOT ASSIGNED****SU020**

*Reason* — The default set facility which allows the CCP to select a particular set in lieu of any other specification was not chosen.

*Recovery* — None

**SU025 ANY TEMPORARY ASSIGNMENT CHANGES?****SU025**

*Reason* — This message is asking you if there are any temporary assignment changes. Changes made now are valid only for this run.

*Recovery* — Perform one of the following:

1. You may press the END key or enter N or NO to continue Startup if there are no changes to be made.
2. Enter Y or YES to make temporary assignment changes by having the CCP ask you questions.
3. Enter specifications as keywords. One keyword may be entered on each input line. An asterisk indicates the keyword must be entered with nothing else on the input line. Those keywords without an asterisk must be followed by a dash and a valid value. The keywords are:

MAXEUP—	Maximum number of user programs
MINUPA—	Minimum user program area
MINTPBUF—	Minimum T/P buffer area
PASSWORD—	CCP sign-on password
SET—	ID character
TRACEBLK—	Size of in-core CCP trace table (Non-zero value sets disk trace on)
TRACEMLTA—	T/P activity (One line or all)
SUPPRESS*	
OFFLINE*	
TRACEMLMP*	

Following keyword input, press the END key without any keyed input to signal CCP to continue beyond this point. The N, NO, Y, or YES responses become invalid once a keyword is entered.

**SU035 UNLESS CHANGED, SET "\*" USED****SU035**

*Reason* — This message tells you the identification character of the default set.

*Recovery* — None

## SU040

### SU040 SELECT SET ID FROM LIST:

*Reason* — This message tells you the set identification characters.

*Recovery* — Perform one of the following:

1. Press the END key if you choose the default set.
2. Enter a one-character set identification character from the list; then press END.

## SU045

### SU045 ANY CHANGES TO SET "\*"?

*Reason* — This message gives you the opportunity to enter changes to a particular set after having selected that set.

*Recovery* — Perform one of the following:

1. Press the END key or enter N or NO to bypass all changes.
2. Enter SUPPRESS to bypass the assignment specification changes and enable the suppression messages next.
3. Enter OFFLINE to receive the offline message and bypass the assignment specification changes and suppression messages.
4. Enter Y or YES to change specifications by having the CCP ask you questions.
5. Enter specifications as keywords. One keyword may be entered on each input line. An asterisk indicates the keyword must be entered with nothing else on the input line. Those keywords without an asterisk must be followed by a dash and a valid value. The keywords are:

MAXEUP—	Maximum number of user programs
MINUPA—	Minimum user program area
MINTPBUF—	Minimum T/P buffer area
PASSWORD—	CCP sign-on password
TRACEBLK—	Size of in-core CCP trace table (Non-zero value sets disk trace on)
TRACEMLTA—	T/P activity (One line or all)
TRACEMLMP*	

Following keyword input, press the END key without any keyed input to signal CCP to continue beyond this point. The N, NO, Y, or YES responses become invalid once a keyword is entered.

## SU055

### SU055 ASSIGNED MAXIMUM CONCURRENT USER PROGRAMS = \*

*Reason* — This message tells you the maximum number of concurrently running user programs.

*Recovery* — None

<p><b>SU060 TO CHANGE, ENTER NEW VALUE</b></p> <p><i>Reason</i> – This message tells you that you may enter a new value to replace what was assigned.</p> <p><i>Recovery</i> – Perform one of the following:</p> <ol style="list-style-type: none"> <li>1. Enter a new value to change the information.</li> <li>2. Press the END key to retain the current information.</li> </ol>	<p><b>SU060</b></p>
<p><b>SU065 NON-ZERO DIGIT REQUIRED</b></p> <p><i>Reason</i> – This message tells you what type of information you should enter.</p> <p><i>Recovery</i> – Enter a non-zero valid digit.</p>	<p><b>SU065</b></p>
<p><b>SU070 ASSIGNMENT SPECIFICATION EXCEEDED</b></p> <p><i>Reason</i> – A numeric value was entered that was larger than the value assigned during the assignment run.</p> <p><i>Recovery</i> – Enter a valid numeric value.</p>	<p><b>SU070</b></p>
<p><b>SU071 INITIALIZING CCP</b></p> <p><i>Reason</i> – This message is issued in all cases to inform you that your initial options are completed and CCP is beginning to initialize itself for the current run.</p> <p><i>Recovery</i> – None</p>	<p><b>SU071</b></p>
<p><b>SU075 ASSIGNED PASSWORD = "*****"</b></p> <p><i>Reason</i> – This message tells you the current CCP sign-on password.</p> <p><i>Recovery</i> – None</p>	<p><b>SU075</b></p>
<p><b>SU090 MINIMUM DYNAMIC T/P BUFFER AREA = ***** BYTES</b></p> <p><i>Reason</i> – This message tells you the current minimum assigned size of the tele-processing buffer area.</p> <p><i>Recovery</i> – None</p>	<p><b>SU090</b></p>
<p><b>SU095 MINIMUM USER PROGRAM AREA = NN.NNK</b></p> <p><i>Reason</i> – This message tells you the current minimum size of the user program area.</p> <p><i>Recovery</i> – None</p>	<p><b>SU095</b></p>

**SU099****SU099 \*ERROR\* INVALID SYNTAX**

*Reason* — The format of your reply was not correct. The system waits for a valid reply.

*Recovery* — Enter a reply in the appropriate valid format.

**SU100****SU100 TO CHANGE MINIMUM T/P BUFFER AREA, ENTER VALUE (BYTES)**

*Reason* — This message tells you that you may change the minimum size of the teleprocessing buffer area. The system waits for your reply.

*Recovery* — Perform one of the following:

1. Press the END key if no change is desired.
2. Enter a valid value up to five digits long; then press END.

**SU101****SU101 MINIMUM T/P BUFFER = \*\*\*\*\* BYTES**

*Reason* — The size of the dynamic T/P buffer given by the user was less than the minimum number of bytes required for this assignment set. This message will be preceded by message SU140 \*ERROR\* INVALID KEYWORD VALUE or message SU110 \*ERROR\* INVALID VALUE.

*Recovery* — Specify a value equal to or larger than the above value.

**SU105****SU105 TO CHANGE MINIMUM USER PROGRAM AREA, ENTER VALUE (NN.NNK)**

*Reason* — This message tells you that you can now change the minimum size of the user program area.

*Recovery* — Perform one of the following:

1. Enter the minimum number of bytes for the user program area, using the format NN.NNK.
2. Press the END key to retain the current minimum size of the user program area.

**SU110****SU110 \*ERROR\* INVALID VALUE**

*Reason* — The numeric value previously entered is invalid. The value was probably too small or too large. If the CCP assumes that the error is obvious, it waits for you to enter a valid numeric value. Otherwise, a subsequent message will indicate what action to take.

*Recovery* — Perform one of the following:

1. None, if another message is printed.
2. Make another entry if a subsequent message is not printed.
3. Press the END key.

**SU111 PREVIOUSLY SPECIFIED****SU111**

*Reason* — A value specified by keyword has been previously specified.

*Recovery* — Enter new reply or press END.

**SU115 REQUESTED SPACE UNAVAILABLE****SU115**

*Reason* — The value that you previously entered was larger than the CCP can accommodate.

*Recovery* — None

**SU119 \*ERROR\* MODULE \*\*\*\*\* NOT FOUND****SU119**

*Reason* — This message may be issued for:

\$CC4 — The resident control portion of the system

\$CC3LO — The startup phase locator

\$CC3RO — The startup phase roller

CCP returns control to System/3 data management.

*Recovery* — Perform the following:

1. List the directory of the object library on the pack from which CCP was initiated.
2. Consult with the system manager to determine if the pack is the correct pack.
3. Generate the CCP system if a backup pack is not available.
4. Call IBM Field Engineering for assistance if the module was not listed in the object library directory listing immediately after CCP generation.

**SU125 \*ERROR\* INVALID KEYWORD****SU125**

*Reason* — Either an unrecognizable keyword or a valid keyword that is a duplicate of a previous specification was entered. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter a valid keyword.
2. Press the END key.

**SU130 \*ERROR\* INVALID DISK UNIT****SU130**

*Reason* — An invalid disk unit indication was entered. The disk unit must be R1, R2, F1, or F2 depending on your system configuration. The system waits for your reply.

*Recovery* — Enter a valid disk unit indication.



**SU140****SU140 \*ERROR\* INVALID KEYWORD VALUE**

*Reason* – An invalid value has been entered for a valid keyword. The system waits with the PROCEED light on for you to reenter the keyword or another keyword with a valid value.

*Recovery* – Perform one of the following:

1. Enter a valid keyword and its value.
2. Press the END key.

**SU141****SU141 NOW IN KEYWORD MODE**

*Reason* – You entered Y, YES, N, or NO after having previously entered a valid keyword. Entering a valid keyword puts the console in keyword mode and CCP expects you to continue entering keywords.

*Recovery* – Enter new response or press END.

**SU143****SU143 \*ERROR\* \$CCPFILE DOES NOT MATCH GENERATED CONTROL MODULES**

*Reason* – The specified \$CCPFILE is not the one generated and initialized by the CCP Generation producing the production pack from which CCP has been initialized.

*Recovery* – Specify the proper \$CCPFILE when you restart the CCP.

**SU145****SU145 \*ERROR\* \$CCPFILE NOT FOUND ON UNIT \*\***

*Reason* – This message tells you that \$CCPFILE could not be found on the specified 5444 disk unit.

*Recovery* – Enter the disk unit where \$CCPFILE can be found.

**SU146****SU146 \*ERROR\* INSUFFICIENT CORE TO INITIATE CCP**

*Reason* – The program level in which CCP was initiated did not contain enough core to run CCP.

*Recovery* – Allow CCP more core when you restart. The minimum core required is 20K. This does not guarantee completed Startup (which is dependent upon user-selected options), but is only the amount of core required to initiate CCP.

**SU149****SU149 CCP TERMINATED**

*Reason* – This message tells you that CCP could not be initiated and is now being terminated. The previous messages have indicated the cause of the error.

*Recovery* – None

SU251 \*ERROR\* MODULE \$CC3 – NOT FOUND

SU251

*Reason* – The named Startup phase module could not be found on the pack from which CCP was initiated. This message can be issued for any of the following modules:

\$CC3CE	\$CC3EJ	\$CC3IP	\$CC3RT	\$CC3UB
\$CC3CR	\$CC3FB	\$CC3LD	\$CC3TA	\$CC3US
\$CC3CX	\$CC3FS	\$CC3PX	\$CC3TB	
\$CC3DF	\$CC3FX	\$CC3QB	\$CC3TC	
\$CC3DL				

*Recovery* – Perform the following:

1. List the directory of the object library on the pack from which CCP was initiated.
2. Consult with the system manager to determine if the pack is the correct pack.
3. Generate the CCP system if a backup pack is not available.
4. Call IBM Field Engineering for assistance if the module was not listed in the object library directory listing immediately after CCP Generation.

SU 259 CCP STARTUP ABORTED

SU259

*Reason* – The modules listed by message SU251 were not found and the CCP has terminated.

*Recovery* – Perform the following:

1. List the object library directory of the pack from which CCP was initiated.
2. Consult with the system manager to determine the cause of the missing modules.
3. Copy the missing module directly from the CCP distribution pack if it is available. If the module is not on the CCP distribution pack, call IBM Field Engineering for assistance.

## SU260

### SU260 WARNING: NO DISPLAY FORMATS FOUND

- Reason* — The assignment set you are using includes the 3270 display format facility, but no \$Z display formats were found on the specified pack. The problem may be that:
- Another pack (program or system) should have been specified in the assignment set.
  - The formatting facility was inadvertently specified in the assignment set.
  - No formats have yet been placed on the pack.
- Recovery* — Ensure that the correct packs have been mounted and the correct assignment set is being used. If so, consult the system manager to determine the status of display formats. The system manager should determine the correct specification of display formats in the assignment set.

## SU267

### SU267 \*ERROR\* \$CCPFILE CANNOT CONTAIN FORMAT INDEX

- Reason* — The size of \$CCPFILE is too small to contain one 8-byte entry for each display format. This message could occur after the user has been successfully running, because the number of display formats has exceeded the capacity of \$CCPFILE.
- Recovery* — Tell the system manager that the number of tracks allocated to \$CCPFILE must be increased.

## SU270

### SU270 \*ERROR\* TRANSIENT \$CC4— NOT FOUND FOR \$CC4—

- Reason* — A CCP transient module to which control is to be passed from another transient cannot be found on the pack from which CCP was initiated. The first \$CC4— module listed in the message is the one missing and the second \$CC4— module is the one that requires the first.
- Recovery* — Perform the following:
1. List the object library directory for the pack from which CCP was initiated.
  2. Consult the system manager to determine the method of recovery.
  3. Modules, in general, cannot be copied from the CCP distribution pack because modules are renamed during the CCP Generation process. The system manager may suggest regenerating CCP or at least the sections that copy modules.
  4. Call IBM Field Engineering for assistance if the problem persists.

SU281 \*ERROR\* \$CC4—, MORE RLD'S THAN RELOCATION ADCONS

SU281

*Reason* — A user-written sign-on security transient module contains more relocation directory entries than user-specified relocation constants.

*Recovery* — Have the programmer review the module and correct the number of relocation constants before reassembling the module.

SU283 \*ERROR\* \$CC4\*\* ACTIVE LENGTH EXCEEDS TRANSIENT AREA

SU283

*Reason* — The named transient module is too large for the transient area. Currently, 512 bytes may be used for instruction and data area, and the relocation address table may start or extend beyond that to the required length.

*Recovery* — Ask the programmer to reduce the size of the transient or break it into two transients.

SU287 \*ERROR\* \$CC4—, MORE RELOCATION ADCONS THAN RLD'S

SU287

*Reason* — A user-written sign-on security transient module contains more user-specified relocation constants than relocation directory entries.

*Recovery* — Have the programmer review the module and correct the number of relocation constants before reassembling the module.

SU289 \*ERROR\* NO TRANSIENTS FOUND FOR RELOCATION BY \$CC3RT

SU289

*Reason* — The pack from which CCP was initiated contained no \$CC4— transient modules.

*Recovery* — Perform the following:

1. List the object library directory of the CCP pack when the CCP returns control to the system.
2. Have the system manager determine the location of the missing modules.
3. Modules, in general, cannot be copied from the CCP distribution pack. The system manager may suggest rerunning the portion of CCP Generation that copies modules which become \$CC4— named modules, if a backup pack is not available.
4. Call IBM Field Engineering for assistance if the problem persists.

## SU300

### SU300 ANY FACILITY TO BE SUPPRESSED?

*Reason* — If temporary changes to the chosen assignment set were specified earlier or if the keyword SUPPRESS was entered, you may now specify what facilities should be suppressed. The PROCEED light is on and CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Press the END key or enter N or NO to bypass all questions.
2. Enter Y or YES to have the CCP ask you questions about each facility that may be suppressed.
3. Enter one or more of the following keywords (one per keyed line):

DISKFILE—	filename
SYMFILE—	symbolic filename
PROGRAM—	program name
BSCALINE—	BSCA line number (1 or 2)
MLTALINE—	MLTA line number (1 - 8)
TERMINAL—	terminal id (2 characters)
PGMCNT	
CANCEL	

The N, NO, Y, or YES responses become invalid once a keyword is entered.

## SU305

### SU305 PROGRAM NAME TO BE SUPPRESSED

*Reason* — This message tells you that you now have the capability to suppress the use of a program for this CCP run. The PROCEED light is on and CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Press the END key if no programs are to be suppressed.
2. Enter a 2 to 6-character program name. Only one program name can be entered at a time.

## SU310

### SU310 \*ERROR\* INVALID PROGRAM NAME

*Reason* — The CCP maintains a list of program names in the program control table (PCT) and the program name you entered could not be found in the PCT. The CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Enter the correct program name.
2. Press the END key.

**SU315 NO FILES IN THIS SET****SU315**

*Reason* – A DISKFILE or SYMFILE keyword was entered for suppression, but no disk file or symbolic filename was defined for the control set. Symbolic filenames may be defined only if disk files are also defined. The CCP is waiting for your reply.

*Recovery* – Perform one of the following:

1. Enter another keyword and a value if required.
2. Press the END key.

**SU320 DISKFILE NAME TO BE SUPPRESSED****SU320**

*Reason* – This message tells you that you now have the opportunity to suppress the use of a disk file for this CCP run. The CCP is waiting for your reply.

*Recovery* – Perform one of the following:

1. Press the END key if no disk files are to be suppressed.
2. Enter a valid disk file name.

**SU325 \*ERROR\* INVALID DISKFILE NAME****SU325**

*Reason* – The CCP maintains a list of disk file names in the file control table and the disk file name you entered could not be found in the table. The CCP is waiting for your reply.

*Recovery* – Perform one of the following:

1. Enter the correct disk file name.
2. Press the END key.

**SU330 SYMFILE NAME TO BE SUPPRESSED****SU330**

*Reason* – This message tells you that you now have the opportunity to specify defined symbolic filenames to be suppressed for the CCP run. The CCP is waiting for your reply.

*Recovery* – Perform one of the following:

1. Press the END key if no symbolic filename is to be suppressed.
2. Enter a valid symbolic filename. Only one name can be entered at a time.

**SU335****SU335 \*ERROR\* INVALID SYMFILE NAME**

*Reason* — The CCP maintains a list of symbolic filenames in the file control table and the name you entered could not be found in the table. The CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Enter the correct symbolic filename.
2. Press the END key.

**SU340****SU340 NO SYMFILES IN THIS SET**

*Reason* — A symbolic filename was specified to be suppressed but no symbolic file was defined in this set. The CCP is waiting for your reply.

*Recovery* — 1. Enter another keyword and value if required.

2. Press the END key.

**SU345****SU345 BSCALINE NUMBER TO BE SUPPRESSED**

*Reason* — This message tells you that you now have the opportunity to specify the number of the BSCA line to be suppressed for this CCP run. The CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Press the END key if no BSCA line is to be suppressed.
2. Enter a single digit (1 or 2) to suppress the appropriate BSCA line.

**SU350****SU350 \*ERROR\* INVALID BSCALINE NUMBER**

*Reason* — An incorrect value was specified for a BSCA line number. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter an appropriate BSCA line number. The valid line numbers are 1 or 2.
2. Press the END key.

**SU351****SU351 BSCALINE "\*" NOW SUPPRESSED**

*Reason* — This message is telling you that because all the terminals on a line were suppressed, the line itself was suppressed.

*Recovery* — Enter a reply in the appropriate format or press END.

**SU355 NO BSCALINES IN THIS SET**

**SU355**

*Reason* — A BSCALINE keyword was entered but no BSCA lines were defined in the control set. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter another keyword and a value if required.
2. Press the END key.

**SU360 MLTALINE NUMBER TO BE SUPPRESSED**

**SU360**

*Reason* — This message tells you that you now have the opportunity to specify the number of the MLTA line to be suppressed for this CCP run. The CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Enter an appropriate MLTA line number. The valid line numbers are a single digit 1 through 8.
2. Press the END key.

**SU365 \*ERROR\* INVALID MLTALINE NUMBER**

**SU365**

*Reason* — An incorrect value was specified for an MLTA line number. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter an appropriate MLTA line number. The valid line numbers are a single digit 1 through 8.
2. Press the END key.

**SU366 MLTALINE “\*” NOW SUPPRESSED**

**SU366**

*Reason* — This message is telling you that because all the terminals on the designated line were suppressed the line itself was suppressed.

*Recovery* — Enter a new reply of the appropriate format or press END.

**SU370 NO MLTALINES IN THIS SET**

**SU370**

*Reason* — An MLTALINE keyword was entered but no MLTA lines are defined in the line control table. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter another keyword and a value if required.
2. Press the END key.



**SU373****SU373 \*ERROR\* ALL T/P LINES NOW SUPPRESSED**

*Reason* — In suppressing lines and terminals, all teleprocessing lines have been suppressed.

*Recovery* — Do not suppress all lines when you restart the CCP.

**SU375****SU375 TERMINAL ID TO BE SUPPRESSED**

*Reason* — This message tells you that you now have the opportunity to specify (by 2-character ID) a terminal to be suppressed during this CCP run. The CCP waits for your reply. (These ID characters were specified by the TERMID keyword on the BSCATERM or MLTATERM statements during Assignment.)

*Recovery* — Perform one of the following:

1. Enter a 2-character terminal ID.
2. Press the END key.

**SU376****SU376 TERMINAL "\*\*\*" NOW SUPPRESSED**

*Reason* — This message is telling you that because the T/P line to which this terminal is assigned was suppressed, the terminal must be suppressed.

*Recovery* — Enter a new reply or press END after all such messages have printed.

**SU380****SU380 \*ERROR\* INVALID TERMINAL ID**

*Reason* — The CCP maintains a list of terminal IDs in the terminal unit table and the ID you entered could not be found in the table. The CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Enter a valid terminal ID.
2. Press the END key.

**SU385****SU385 PREVIOUSLY SUPPRESSED**

*Reason* — This message tells you that a facility that was specified for suppression had previously been specified. The CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Enter a valid response for another facility.
2. Press the END key.

SU390 PROGRAM REQUEST COUNT NOT SPECIFIED AT CCP GENERATION

SU390

*Reason* — A keyword was entered to suppress the program request count, but that facility was omitted in CCP Generation.

*Recovery* — Perform one of the following:

1. Enter another keyword and a value if required.
2. Press the END key.

SU395 IS PROGRAM REQUEST COUNT TO BE SUPPRESSED?

SU395

*Reason* — This message tells you that you now have the opportunity to suppress the program request count during this CCP run. The CCP is waiting for your reply.

*Recovery* — Perform one of the following:

1. Enter Y, YES, N, or NO.
2. Press the END key (same as NO).

SU401 \*ERROR\* INVALID RESPONSE

SU401

*Reason* — This is a general message indicating that you made an invalid entry. If the CCP assumes the error is obvious, it will wait for you to make another entry. Otherwise, it will issue another message indicating the specific error and what action to take.

*Recovery* — Perform one of the following:

1. None, if another message is printed.
2. Make another entry if a subsequent message is not printed.
3. Press the END key.

SU405 WARNING: ALL FILES SUPPRESSED

SU405

*Reason* — This message is issued when you suppress the last disk file; or, after having suppressed the last disk file, you enter another disk file or symbolic filename to be suppressed.

*Recovery* — Perform one of the following:

1. None, if the message SU305 is issued.
2. Enter another keyword and a value if required.
3. Press the END key.

## SU410

### SU410 NOW IN KEYWORD MODE

*Reason* — After you have entered a valid keyword, the CCP expects you to continue entering keywords or press the END key and not enter Y, YES, N, or NO.

*Recovery* — Perform one of the following:

1. Enter a keyword and a value if required.
2. Press the END key.

## SU415

### SU415 \*ERROR\* INVALID KEYWORD

*Reason* — You have entered an invalid keyword. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter a valid keyword and a value if required.
2. Press the END key.

## SU420

### SU420 \*ERROR\* INVALID KEYWORD VALUE

*Reason* — You entered a valid keyword and the format was correct, but the value given was not accepted. Possible errors are:

- Missing value
- Incorrect number of characters
- Exceeded specifications (too large or too small a value)
- Alphabetic for numeric or vice-versa

The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter the same keyword with a correct value or another keyword and a value if required.
2. Press the END key.

## SU425

### SU425 \*ERROR\* ALL PROGRAMS NOW SUPPRESSED

*Reason* — You suppressed the usability of the last remaining unsuppressed program listed in the program control table. You may have explicitly suppressed the last unsuppressed program by name or you may have suppressed a disk file or symbolic filename required by the last remaining unsuppressed program.

*Recovery* — Restart the CCP after the termination message is issued.

SU430 PROGRAM "\*\*\*\*\*" NOW SUPPRESSED

SU430

*Reason* – You suppressed a disk file or symbolic filename that is required by the named program. Therefore, the program cannot execute and it must also be suppressed. If the named program is the last remaining unsuppressed program in the program control table, subsequent error and termination messages are issued.

*Recovery* – Perform one of the following:

1. None, if message SU425 is issued.
2. Enter a reply if the system waits.
3. Press the END key.

SU435 SYMFILE "\*\*\*\*\*" NOW SUPPRESSED

SU435

*Reason* – A disk file was suppressed which was the last remaining unsuppressed disk file referenced by the named symbolic filename. Since all disk file references of the symbolic filename are now suppressed, the symbolic filename must be suppressed. The CCP waits for your reply.

*Recovery* – Perform one of the following:

1. Enter another appropriate response.
2. Press the END key.

SU440 \*ERROR\* INVALID SYNTAX

SU440

*Reason* – The format of the specification was incorrect. Possible errors are:

- Space precedes the keyword
- Embedded blank exists somewhere in the input
- Something other than a dash separates a keyword from its value
- Keyword value may be missing

The CCP waits for your reply.

*Recovery* – Perform one of the following:

1. Reenter the keyword and a value if required using the correct format.
2. Press the END key.

## SU449

### SU449 CCP TERMINATED

*Reason* — This message is issued when either a CANCEL keyword is entered or an error occurs that would not allow the CCP to continue. If the CCP could not continue because of an error, a preceding message described the cause of the error.

*Recovery* — Restart the CCP.

## SU451

### SU451 PROGRAM "\*\*\*\*\*" NOT FOUND, SUPPRESSED

*Reason* — The program was not found on the designated pack. The program named is suppressed for this run of CCP.

*Recovery* — None for this run. On the next run you may want to place the compiled program on the specified pack.

## SU453

### SU453 \*ERROR\* ALL PROGRAMS NOW SUPPRESSED

*Reason* The last unsuppressed program could not be found on the designated pack. Therefore, it too was suppressed and now all programs are suppressed.

*Recovery* — When restarting CCP, assure the required programs can be found. The assignment set may need to be changed to designate the pack on which the programs physically reside.

## SU461

### SU461 \*ERROR\* CORE EXHAUSTED WHILE BUILDING T/P CONTROL BLOCKS

*Reason* This message is telling you that there is insufficient core to complete the building of T/P line DTFs, buffers, etc.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Omit any TRACEMLTA or TRACEMLMP specification
  - Use consecutive numbers (starting with 1) for ATTRID in Assignment to reduce disk space and core
  - Reduce the size of CCP in-core trace table if using TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK— 0 in Assignment or Startup
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions

**SU463 \*ERROR\* INVALID BSCA OCL STATEMENT****SU463**

*Reason* — CCP was, by Assignment, expected to build two BSCA DTFs but the user entered a // BSCA LINE-n statement.

*Recovery* — When restarting CCP, change the assignment set or omit the // BSCA OCL statement.

**SU541 \*ERROR\* CORE EXHAUSTED WHILE BUILDING TERMINAL UNIT BLOCKS****SU541**

*Reason* — The CCP requires more core. Core was exhausted while trying to build the terminal unit blocks.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager to determine how to conserve core.
2. The following information can be given to the system manager. Core requirements can be reduced by reducing the number of terminals in the assignment set or suppressing any assigned terminals. The system manager can also reconfigure the size of various optional items, such as:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the size of the CCP in-core trace table if using TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK-0 in Assignment or Startup
  - Suppress the use of the program request count table
  - Regenerate the CCP to exclude unneeded options

**SU543****SU543 \*ERROR\* CORE EXHAUSTED WHILE BUILDING TERMNAME'S**

*Reason* — The CCP requires more core. Core was exhausted while building names assigned as possible terminal names.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager to determine how to conserve core.
2. The following steps can be taken to conserve core:
  - Specify fewer TERMNAMEs
  - Reduce the number of terminals in the assignment set
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK-0 in Assignment or Startup
  - Avoid use of the TRACEMLMP and TRACEMLTA keywords
  - Suppress the use of the program request count table
  - Reduce the number of terminal attribute sets (TERMATTR keyword in Assignment)
  - Regenerate the CCP to exclude unneeded options

**SU547****SU547 TERMNAME '\*\*\*\*\*' NOW UNASSIGNED**

*Reason* — This message tells you that the terminal to which this name had been assigned was suppressed and the name is available for use as an alternate name elsewhere.

*Recovery* — None

**SU555****SU555 \*\*\* MORE TRACKS NEEDED IN \$CCPFILE**

*Reason* — This message tells you how much extra space is needed in \$CCPFILE for the CCP to run. The message may appear more than once. Each time it appears, the accumulated requirements are noted.

*Recovery* — Perform the following:

1. After CCP has terminated, consult with the system manager to determine how to increase space in \$CCPFILE.
2. The system manager should increase the size of \$CCPFILE by at least the specified number of tracks by doing one of the following:
  - Use the System/3 \$COPY function
  - Delete \$CCPFILE, then re-run \$CC1BF with an OCL //FILE statement specifying a sufficient number of tracks, and reenter assignment sets using \$CCPAS.

**SU557 \*ERROR\* EXHAUSTED CORE IN ATTEMPTING TO:**

**SU557**

*Reason* — This is a header message for subsequent messages. The message following this header tells what specific item needed core when the core was not available.

*Recovery* — None

**SU560 LOAD \$CC4**

**SU560**

*Reason* — This message is issued when core is not available to load the basic CCP control module. This message is preceded by message SU557.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager to determine how to conserve core.
2. The following steps can be taken to conserve core:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer
  - Regenerate the CCP to exclude unnecessary options

**SU565 \*ERROR\* MODULE \*\*\*\*\* NOT FOUND**

**SU565**

*Reason* — The named module could not be found on the CCP production pack.

*Recovery* — If certain module names are not found, you specified to CCP that support for a device was desired and that support was not included at the time System/3 was generated. These module names are:

\$\$CLE1 (MFCU)  
\$\$CLER (1442 reader/punch)  
\$\$CLRP (line printer)  
\$\$ODLT (5445 disk drive)

If support for the device in question is desired, System/3 must be re-generated to include that device support. If support for that device is not desired, CCP must be regenerated without that device support.

If any of the following module names are not found, contact IBM Field Engineering for assistance: \$CC4Z9, \$CC4DF, \$CC\$ML, \$CC\$BS, or \$CC\$TR.



**SU570****SU570 \*ERROR\* INVALID CCP BRANCH INSTRUCTION IN CONSOLE INTERRUPT HANDLER**

*Reason* — This message is issued when the calculated address for the CCP branch instruction in the System/3 module \$COIH does not contain the hexadecimal digits C0800001. The system manager should be sure that version 8, modification 0 or a later System/3 version is being used.

*Recovery* — Use version 8, modification 0 or a later System/3 version, or if the proper version is being used contact IBM Field Engineering for assistance.

**SU575****SU575 \*ERROR\* INSUFFICIENT DISK CORE DUMP SPACE**

*Reason* — This message is issued when \$CCPFILE is too small to hold at least one complete core dump for the machine on which CCP is running.

*Recovery* — Perform the following:

1. After CCP has terminated, consult with the system manager to determine how to increase space in \$CCPFILE.
2. The system manager should increase the size of \$CCPFILE by at least the number of tracks specified by message SU555 by doing one of the following:
  - Use the System/3 \$COPY function
  - Delete \$CCPFILE, rerun \$CC1BF with an OCL // FILE statement specifying a sufficient number of tracks, and reenter assignment sets using \$CCPAS

**SU580****SU580 \*ERROR\* INSUFFICIENT DISK TRACE SPACE**

*Reason* — This message is issued when \$CCPFILE is too small to contain at least the number of tracks of CCP trace entries specified during Generation.

*Recovery* — Perform the following:

1. After CCP has terminated, consult with the system manager to determine how to increase space in \$CCPFILE.
2. The system manager should increase the size of \$CCPFILE by at least the number of tracks specified by message SU555 by doing one of the following:
  - Use the System/3 \$COPY function
  - Delete \$CCPFILE, rerun \$CC1BF with an OCL //FILE statement specifying the required number of tracks, and reenter assignment sets using \$CCPAS

## SU585 ALLOCATE PROGRAM REQUEST COUNT TABLE

SU585

*Reason* – This message is issued when insufficient core is available to allocate two bytes for each user program defined in the assignment set. It is preceded by SU557.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various optional items to make more core available. He can:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK=0 at Assignment or Startup
  - Suppress the use of the program request count table
  - Regenerate the CCP to omit any unnecessary functions

## SU590 LOAD CCP TRACE MODULE

SU590

*Reason* – This message is issued when you include CCP trace, by specifying the TRACEBLK keyword and a non-zero value, but there is not enough core to load the basic module. It is preceded by SU557.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various optional items to make more core available. He can:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Regenerate the CCP to exclude any unnecessary functions

## SU595

### SU595 ALLOCATE CCP TRACE TABLE

*Reason* – This message is issued when insufficient core is available to reserve as much space as was specified for the CCP trace table. It is preceded by SU557.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various optional items to make more core available. He can:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Specify TRACEBLK-0 to eliminate CCP trace from this run
  - Regenerate the CCP to omit any unnecessary functions

## SU600

### SU600 LOAD SERVICE AID MODULE

*Reason* – This message is issued when there is insufficient core to load the service aid module, \$CC\$SA. It is preceded by SU557.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Increase the size of the program level (in DPF system)
  - Reduce the minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace and the service aid module from this run by specifying TRACEBLK-0 at Assignment or Startup
  - Regenerate the CCP to eliminate any unnecessary functions
  - Punch the service aid module into cards and save it; then delete module \$CC\$SA from the production pack.

## SU605 LOAD BSCA TRACE MODULE

SU605

*Reason* – This message is issued when there is insufficient core to load the BSCA trace module. It is preceded by SU557.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Omit the TRACEMLMP specification
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace from this run by TRACEBLK-0 in Assignment or Startup
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary function

## SU610 LOAD MLTA TRACE MODULE

SU610

*Reason* – This message is issued when there is insufficient core to load the MLTA trace module. It is preceded by SU557.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Omit the TRACEMLTA specification
  - Omit any TRACEMLMP specification
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK-0 in Assignment or Startup
  - Regenerate the CCP to eliminate any unnecessary functions
  - Suppress the use of the program request count table

*Reason* — This message is issued when there is insufficient core to contain the terminal attribute table. There may have been enough core to hold the table entries themselves, but not enough to read the required number of 256-byte sectors.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Omit any TRACEMLTA or TRACEMLMP specification
  - Disk space and core may also be reduced by using consecutive numbers (starting with 1) for ATTRID in Assignment
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK-0 in Assignment or Startup
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary function

SU661 \*ERROR\* CORE EXHAUSTED WHILE BUILDING CONTENTS DIRECTORY ENTRIES

SU661

*Reason* – This message is issued when there is insufficient core to build the contents directory-entries.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK-0 in Assignment or Startup
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword in Assignment

*Reason* — This message is issued when there is insufficient core to build one 6-byte entry per sector of program control table.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Define fewer programs in Assignment
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of terminals in the system
  - Reduce the number of TERMNAMEs in Assignment
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK-0 in Assignment or Startup
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword-in Assignment

SU681 \*ERROR\* CORE EXHAUSTED WHILE BUILDING USER TASK CONTROL  
BLOCKS

SU681

*Reason* — This message is issued when there is insufficient core to build the user task control blocks.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table if using the TRACEBLK keyword
  - Eliminate CCP trace by TRACEBLK-0 in Assignment
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword in Assignment
  - Reduce the number of terminals specified in Assignment
  - Reduce the number of TERMNAMEs in Assignment
  - Suppress any unused T/P lines and terminals



SU691 \*ERROR\* CORE EXHAUSTED WHILE BUILDING SYMBOLIC FILE  
SPECIFICATION BLOCKS

*Reason* – This message is issued when there is insufficient core to build symbolic file specification blocks.

*Recovery* – Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Reduce the number of file specification blocks (by Assignment)
  - Reduce the number of files in the assignment set (disk files and symbolic filenames)
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table (or eliminate CCP trace by TRACEBLK-0) in Assignment
  - Reduce the number of terminals in the assignment set
  - Reduce the number of TERMNAMEs in Assignment
  - Suppress any unused terminals or lines
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword in Assignment

SU701 \*ERROR\* CORE EXHAUSTED WHILE BUILDING SECTOR ENQUEUE BLKS

SU701

*Reason* — This message is issued when there is insufficient core to build sector enqueue blocks for file sharing.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Reduce the number of system enqueue blocks (by Assignment)
  - Reduce the number of files in the assignment set
  - Increase the size of the program level (in a DPF system)
  - Reduce the number of terminals in the assignment set
  - Reduce the number of TERMINAMEs in Assignment
  - Suppress any unused terminals or lines
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table (or eliminate CCP trace by TRACEBLK-0) in Assignment
  - Suppress the use of the program request count table
  - Regenerate CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword in Assignment

SU710 \*ERROR\* MULTIVOLUME FILES NOT SUPPORTED, FILENAME: \*\*\*\*\*

SU710

*Reason* — This message tells you the multivolume filename that was specified by OCL when CCP was initiated.

*Recovery* — Perform the following:

1. None at this time; however, when reinitiating the CCP, the OCL for this disk file must be omitted.
2. The system manager should remove from the assignment specifications those DISKFILE statements pertaining to the multivolume file.

SU715 \*ERROR\* MISSING OCL, FILENAME: \*\*\*\*\*

SU715

*Reason* — An OCL // FILE card was not entered when CCP was initiated and you did not suppress the use of the disk file defined in the file control table.

*Recovery* — None at this time; however, when reinitiating the CCP, include a //FILE card for this file or suppress the use of the file.

*Reason* — This message is issued when there is insufficient core for CCP to build skeleton disk file DTFs.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Reduce the number of disk files (through Assignment or operator suppression)
  - Increase the size of the program level (in a DPF system)
  - Reduce the number of terminals in the assignment set
  - Reduce the number of TERMNAMEs in Assignment
  - Suppress any unused terminals or lines
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table (or eliminate CCP trace by TRACEBLK-0) in Assignment
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword in Assignment

SU727 CORE EXHAUSTED WHILE BUILDING SYMBOLIC FILE REFERENCE  
POINTERS

SU727

*Reason* — This message tells you that there was insufficient core to complete building the symbolic filenames and pointers.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager about how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available. He can:
  - Reduce the number of disk files (through Assignment or operator suppression)
  - Define fewer programs in the assignment set
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table
  - Eliminate CCP trace by TRACEBLK-0 in Assignment
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Reduce the number of terminals in the assignment set
  - Reduce the number of terminal names in the assignment set
  - Suppress any unused line or terminal
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword in Assignment

SU730 \*ERROR\* INVALID FILENAME OR LABEL: \*\*\*\*\*

SU730

*Reason* — This message is issued when an OCL // FILE statement is included when CCP is initiated and a prohibited value is included on the NAME or LABEL keyword. Currently, the only prohibited disk file name or label is \$CCPFILE.

*Recovery* — None at this time; however, when reinitiating the CCP, omit the // FILE statement containing the invalid name or label.

SU735 \*ERROR\* DUPLICATE FILENAME: \*\*\*\*\*

SU735

*Reason* — This message is issued when two or more OCL // FILE statements are included when CCP is initiated and the statements have the same NAME— keyword value.

*Recovery* — None at this time; however, when reinitiating the CCP, omit the duplicate file statement.

**SU751****SU751 PREVIOUS ERRORS, NO DISKFILES OPENED**

*Reason* — This message is issued when disk files are not opened because of previous errors (denoted by error messages).

*Recovery* — None

**SU753****SU753 OPENING DISKFILES**

*Reason* — This message is telling you that CCP is beginning to open the disk files. It is only issued if there are disk files to be opened.

*Recovery* — None

**SU759****SU759 \*ERROR\* CORE EXHAUSTED WHILE BUILDING MASTER INDEXES**

*Reason* — This message is issued when there is insufficient core to build master indexes for those files which you indicated CCP should build one master index entry per cylinder of file index. The master indexes for which an amount of core was specified are already built.

*Recovery* — Perform the following:

1. Save the console printout and consult with the system manager on how to conserve core.
2. The system manager can reconfigure the size of various items to make more core available: He can:
  - Eliminate one or more master indexes by Assignment
  - Suppress or eliminate unused disk files or symbolic filenames from the assignment set
  - Increase the size of the program level (in a DPF system)
  - Reduce the CCP minimum user program area (minimum allowed value is 5K)
  - Reduce the minimum T/P dynamic buffer area
  - Reduce the number of concurrent user programs
  - Reduce the size of the CCP in-core trace table (or eliminate CCP trace by TRACEBLK-0) in Assignment
  - Suppress the use of the program request count table
  - Regenerate the CCP to eliminate any unnecessary functions
  - Omit any TRACEMLMP or TRACEMLTA specifications
  - Ensure consecutive numbers (beginning with 1) are used for the ATTRID keyword in Assignment
  - Reduce the number of programs in the assignment set
  - Reduce the number of terminals in the assignment set
  - Reduce the number of terminal names (TERMNAMEs) in the assignment set
  - Suppress any unused lines or terminals

SU901 \*ERROR\* TRANSIENT \$CC4\*\* NOT FOUND

SU901

*Reason* — This message is issued when the named first-level transient module (one called from resident code) could not be located on the pack from which CCP was initiated.

*Recovery* — Perform the following:

1. Consult with the system manager to determine the location of this module.
2. List the directory of the production pack object library when CCP terminates.
3. The system manager should compare the current production pack object library directory listing with the one made immediately after CCP Generation. If the module was not available immediately after CCP Generation, call IBM Field Engineering for assistance. Use the backup copy of pack for copying the module if it is available. If the backup pack is not available and the module was on the production pack immediately after CCP Generation, IBM Field Engineering can help you find its *pre-generation* name on the distribution pack and you can copy with a rename of the module. An alternative is regenerating the CCP.

SU915 DYNAMIC T/P BUFFER AREA = \*\*\*\*\* BYTES

SU915

*Reason* — This message tells you the actual size of the dynamic T/P buffer after all CCP control blocks have been built and after the minimum buffer area size has been rounded up to the next 256-byte boundary.

*Recovery* — None

SU916 USER PROGRAM AREA = \*\*,\*\*K

SU916

*Reason* — This message tells you the actual size of the user program area. It is the same size that was specified during Assignment or specified earlier during Startup as the minimum user program area.

*Recovery* — None

SU917 UNALLOCATED CORE = \*\*,\*\*K

SU917

*Reason* — This message tells you the amount of available core not currently allocated to any CCP function.

*Recovery* — None

**SU918****SU918 SPECIFY ANY EXTRA USER PROGRAM AREA (NN.NNK)**

*Reason* — This message tells you to specify the amount of unallocated core that is to be allocated to the user program area. The format of the response is also shown.

*Recovery* — Perform one of the following:

1. Enter a value using the format NN.NNK specifying the amount of unallocated core (see message SU917) that is to be allocated to the user program area. The remainder is automatically allocated to dynamic T/P buffer area.
2. Press the END key to allocate all of the unallocated core to the T/P buffer area.

**SU921****SU921 \*ERROR\* INVALID SYNTAX**

*Reason* — This message tells you that the format of your response was invalid. The CCP waits for your response.

*Recovery* — Perform one of the following:

1. Reenter the specification using the correct format.
2. Press the END key.

**SU925****SU925 \*ERROR\* INVALID RESPONSE**

*Reason* — This message is issued when you specify a terminal to be placed off-line and the terminal ID is invalid.

*Recovery* — Perform one of the following:

1. Enter a valid 2-character terminal ID.
2. Press the END key.

**SU940****SU940 SPECIFY ANY OFFLINE TERMINAL ID**

*Reason* — This message tells you that you may now specify the 2-character ID (reference assignment) of any terminal to be initially set offline. This offline specification applies to those terminals specified during Assignment as online. By setting a terminal offline, its further use is not at all precluded. When the terminal is available, you may include it into the system by setting it online (Vary command).

*Recovery* — Perform one of the following:

1. Enter a 2-character terminal ID. After each valid 2-character entry, the system waits again. When you press the END key without entering an ID, CCP bypasses setting any additional terminals off-line.
2. Press the END key to continue.

**SU941 TWO NON-BLANK CHARACTERS REQUIRED****SU941**

*Reason* — This message is issued after SU940 and tells you that one character and a blank was entered instead of a 2-character ID. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter a valid 2-character terminal ID.
2. Press the END key.

**SU942 TERMINAL ALREADY OFFLINE****SU942**

*Reason* — This message is issued when you specify a terminal to be set offline and the terminal was previously set offline either by an Assignment specification or by you during Startup.

*Recovery* — Perform one of the following:

1. Enter another terminal ID.
2. Press the END key.

**SU945 TERMINAL ID NOT FOUND****SU945**

*Reason* — This message is issued when the 2-character terminal ID you entered does not match any defined terminal ID in the terminal unit table. The CCP waits for your reply.

*Recovery* — Perform one of the following:

1. Enter a valid 2-character terminal ID.
2. Press the END key.

**SU951 \*ERROR\* UNABLE TO OPEN MLTA ADAPTER****SU951**

*Reason* — This message is issued during CCP startup when the MLTA open routines could not successfully open the MLTA adapter DTF.

*Recovery* — Call IBM Field Engineering for assistance if the problem persists.



## SU952

### SU952 \*ERROR\* UNABLE TO OPEN MLTALINE—\*, CODE—\*\*

*Reason* — This message is issued during CCP startup when the MLTA open routines were unable to open the specified line DTF. MLTALINE—\* indicates the MLTA line number which could not be opened. CODE—\*\* indicates the return code issued when the line could not be opened. The return codes and reasons are described in *IBM System/3 Model 10 Disk System Multiple Line Terminal Adapter RPQ Program Reference and Component Description Manual*, GC21-7560.

*Recovery* — After CCP has shutdown and EJ is displayed, you may restart the CCP and suppress the use of the problem MLTA line. If the problem persists, call IBM Field Engineering for assistance.

*Note:* There is no corresponding message for BSCA CCP systems as the normal BSCA open halts and messages appear in case of open errors. The appropriate responses for these errors are given in the *IBM System/3 Disk System Halt Procedure Guide*, GC21-7540.

## SU997

### SU997 OPENING COMMUNICATION LINES

*Reason* — This message is issued unless CCP terminated by error. It tells you that the initialization phase of CCP has successfully completed and control has been yielded to the resident portion of CCP to open communications lines.

*Recovery* — None

## SU999

### SU999 ERROR DURING STARTUP, CCP TERMINATED

*Reason* — This message tells you that an error occurred during the Startup of CCP which prevented CCP from continuing and yielding control to the resident CCP control program. A previous message stated the reason.

Even though errors were recognized and noted earlier, the actual termination of CCP is held off as long as possible to detect any subsequent errors.

*Recovery* — Review the console printout to determine the cause of the termination, correct the error, and then restart the CCP.

## OPERATIONAL STAGE MESSAGES

### 000 CCP STARTED

000

*Reason* — Initialization of CCP and opening of communications lines has been successfully completed. CCP is now ready for terminal communication.

*Recovery* — None

### 022 REJECTED-PGM-REQUEST PENDING/ACTIVE

022

*Reason* — You have attempted to change the queue/no-queue status while a program request you made is still pending or a user program is still processing your input data.

*Recovery* — Wait until the program you requested has finished processing your input data and then retry the Queue or No-queue command.

### 060 REJECTED-NO BUFFER

060

*Reason* — Insufficient buffer space available for your program request from the console to be processed.

*Recovery* — Retry the program request. It is accepted when a console request buffer becomes available.

### 061 CONSOLE NOT AVAILABLE FOR REQUESTS

061

*Reason* — You have entered a program request and the last program you requested from the console either has not started or the program has started but has not yet read your input data.

*Recovery* — Wait for the console to be released or the program to terminate prior to entering another program request.

### 066 I/O ERROR ON PCT FILE-PROGRAM 'xxxxxx'

066

*Reason* — A permanent disk I/O error has occurred during the program request processing of program xxxxxx.

*Recovery* — The error may continue to occur for this program or for other programs. If it does, CCP should be shutdown using the Shutdown command and the problem analyzed. A subsequent run of CCP may be successful or an Assignment run may have to be made first. If the cause of the error can not be determined, call IBM Field Engineering for programming support, or for hardware assistance if the disk is defective.

093

093 REJECTED-PGM-REQUEST PENDING/ACTIVE

*Reason* — You have a program request pending or a program which you requested has not yet processed your input data. During this time you may not change any symbolic file specification with a File command.

*Recovery* — Enter the File command after the program has released the console or has terminated.

180

180 OK

*Reason* — The unit record device has been allocated or deallocated as requested.

*Recovery* — None

181

181 CCP ALREADY HAS DEVICE

*Reason* — Allocation of unit record device to the CCP level was requested, but CCP already owns the device.

*Recovery* — None

182

182 OTHER LEVEL ALREADY HAS DEVICE

*Reason* — Deallocation of a unit record device was requested, but CCP does not own the device.

*Recovery* — None

183

183 DEVICE NOT DEFINED TO CCP

*Reason* — Allocation or deallocation was requested, but the unit record device was not defined to CCP at Assignment time.

*Recovery* — None

184

184 NOT DPF SYSTEM

*Reason* — Deallocation of a unit record device was requested, but this is not a DPF system.

*Recovery* — None

185

185 DEVICE IN USE BY CCP

*Reason* — Deallocation of a unit record device was requested, but the device is required by a task in the CCP level.

*Recovery* — None

<b>186 SYNTAX ERROR</b>	<b>186</b>
<i>Reason</i> — A syntax error was detected in the allocation specification.	
<i>Recovery</i> — None	
<b>187 SCHEDULER INTERLOCK — RETRY</b>	<b>187</b>
<i>Reason</i> — Allocation or deallocation of a unit record device was requested, but the other program level is performing some function that prohibits the required action from being performed.	
<i>Recovery</i> — Retry the operation.	
<b>188 DEVICE NOT AVAILABLE</b>	<b>188</b>
<i>Reason</i> — Allocation of a unit record device was requested, but the device is currently allocated to the other program level.	
<i>Recovery</i> — Retry when the other program level is not using the device.	
<b>189 ALLOCATE REQUEST REJECTED-DISK ERROR</b>	<b>189</b>
<i>Reason</i> — A disk error was encountered by attempting to allocate or deallocate a unit record device.	
<i>Recovery</i> — Retry the command. If failures repeatedly occur, call IBM Field Engineering for assistance.	
<b>211 NO REPLY PENDING</b>	<b>211</b>
<i>Reason</i> — A Display Replies command was entered and there are no outstanding reply requests.	
<i>Recovery</i> — None	
<b>220 AWAITING REPLIES</b>	<b>220</b>
<i>Reason</i> — This is a header message in response to a Display Replies command. A list of tasks awaiting a reply is printed on subsequent output lines.	
<i>Recovery</i> — None	
<b>221 TASK ID=n</b>	<b>221</b>
<i>Reason</i> — This line is printed for each task in the system that is awaiting a reply to some previous output message. The specific message can be found by finding the output line with an asterisk in position 1 and the task ID (n) in position 3.	

**240**

**240 SYMBOLIC TERMINAL NAME 'PHYSICAL ID'**

*Reason* – This message is issued in response to a Display Terminal Assignments command. The message number is followed by the current terminal names.

*Recovery* – None

**241**

**241 SYNTAX ERROR**

*Reason* – This message is issued in response to a Display Terminal Assignments command when the terminal name was entered incorrectly.

*Recovery* – Correct the command and retry.

**242**

**242 INVALID SYMBOLIC NAME**

*Reason* – This message is issued in response to a Display Terminals command when a symbolic name was used as an operand and the name is not defined in the system.

*Recovery* – Correct the error and retry.

**261**

**261 INVALID OPERAND**

*Reason* – This message is issued in response to a Display Terminals command and the terminal name input is invalid.

*Recovery* – Correct the error and retry.

270 {TERMINID-'xx'}  
 {TERMNAME-"xxxxxx"} TASK-# {ONLINE }  
 {OFFLINE } MODE- {CMND }  
 {CMDI }  
 {DATA }  
 {INIT }  
 {STBY } 270

REQ- {Y }  
 {N } FSB-# [\*\*ERP\*] [\*TEST\*]

*Reason* — This message is issued in response to a Display Terminals command. If the request is by physical terminal ID, TERMNAME-xxxxxx contains the current symbolic name. If the request is by symbolic name, the TERMINID-xx contains the physical ID of the terminal. The TASK-# is a P if the terminal is not currently assigned to a program. If it is assigned to a program, it is the assigned task number of the program. ONLINE or OFFLINE indicates if the terminal is available to CCP. MODE indicates the current terminal status. REQ indicates if the terminal is requesting from the owning program. FSB-# is the number of file specification blocks used by the terminal. TEST and ERP are included in the display only if the terminal is in T/P error recovery or if online tests are currently being run.

You can determine whether the terminal is a requesting terminal from the combinations of the MODE and REQ values.

MODE	REQ	Terminal is
INIT	N	Not signed on
CMND	N	Signed-on
CMND	Y	Signed-on and has requested a program which has not yet started
DATA	Y	Signed-on and has requested a program that is currently running
CMDI	Y	Signed-on and has requested a program that is currently running. However, the terminal is in command interrupt mode.
STBY	N	Data (non-command) terminal that is not in use by a program.
DATA	N	A terminal in use by a program that is currently running. The terminal did not request the program, but the program uses the terminal. This can be a data terminal or a command terminal that is not signed-on.

*Recovery* — None

280

280 TSK PGMNAM #CORE #T #F #U STATUS

*Reason* — This message is issued as a header line after a Display Users command.

TSK	Task number
PGMNAM	Name of the currently executing program
#CORE	Core size of the program
#T	Number of terminals used by the program
#F	Number of disk files
#U	Number of unit record devices
STATUS	Current status of the task. The status is active, suspended, or waiting. If the status is waiting, the wait mask of the task is printed.

*Recovery* — None

281

281 TSK 'NAME' #CORE #T #F #U { ACTIVE } { \*ALLOCATION\* }

{ SUSPEND }

{ W-xxxx }

*Reason* — This message is a detail line for message 280. A detail line is printed for each task in the system.

*Recovery* — None

290

290 TASK(S) NOT ACTIVE

*Reason* — This message is issued when a Display Users command is entered and no task is active.

*Recovery* — None

291

291 SYNTAX ERROR

*Reason* — This message is issued in response to a Display Users, [last/task ID] command when the second operand is invalid.

*Recovery* — None

292

292 INVALID TASK ID

*Reason* — This message is issued when a Display Users task ID command has an ID not valid for CCP.

*Recovery* — None

295

295 TASK RESOURCES

*Reason* — This message is issued in response to a Display User command. The ID is printed as a header line for the display of a task. The header is followed by a list of terminal names, disk filenames, and unit record vices.

*Recovery* — None

299 LAST TASK—'TASK ID'	299
<p><i>Reason</i> — This message is issued after a Display Users last command. It identifies the last user task in control of the CCP.</p> <p><i>Recovery</i> — None</p>	
300 QUEUE DISPLAY	300
<p><i>Reason</i> — This message is issued after a Display Queue command when program requests are waiting for resources. The message is a header line and the terminal name and program name follow it on the next line.</p> <p><i>Recovery</i> — None</p>	
301 NO QUEUED PGM REQUEST	301
<p><i>Reason</i> — This message is issued after a Display Queue command when no program requests are on queue.</p> <p><i>Recovery</i> — None</p>	
302 'SYMBOLIC TERMINAL NAME' 'PROGRAM NAME'	302
<p><i>Reason</i> — This message is issued in response to a Display Queue command. It follows the header message 300 QUEUE DISPLAY and gives the terminal name and program name.</p> <p><i>Recovery</i> — None</p>	
318 TERMINAL ALREADY ONLINE	318
<p><i>Reason</i> — A Vary Online command was issued to a terminal that is already online.</p> <p><i>Recovery</i> — None</p>	
319 TERMINAL STILL BEING VARIED OFFLINE	319
<p><i>Reason</i> — This message is in response to a Vary Online command to a terminal that was earlier issued a Vary Offline command and the Vary Offline command has not yet been completed. This can occur for one of the following reasons:</p> <ol style="list-style-type: none"> <li>1. The terminal operator is still keying data in and the device could not be stopped.</li> <li>2. The device is a 2741 that cannot be placed offline until the next input operation occurs from it.</li> <li>3. The terminal is on a switched line and the disconnect has not yet completed.</li> </ol> <p><i>Recovery</i> — None. The Vary Offline command is eventually completed and until then no Vary Online command is accepted to the terminal.</p>	



320

320 TERMINAL VARIED ONLINE AS 'SYMBOLIC TERMINAL NAME'

*Reason* — A Vary Online command has been accepted by CCP and the terminal is now online.

*Recovery* — None

321

321 TERMINAL BEING VARIED OFFLINE

*Reason* — A Vary Offline command has been accepted by the CCP and the terminal has begun processing prior to being placed offline (no longer available to the system).

*Recovery* — None

322

322 TERMINAL VARIED OFFLINE—NO PRIMARY NAME

*Reason* — A Vary Offline command has been accepted by the CCP and the terminal is no longer available (see explanation for message 321). However, there was no primary name available for the terminal and it is still known to the system by a secondary name.

*Recovery* — None

323

323 TERMINAL VARIED OFFLINE—PRIMARY NAME REASSIGNED

*Reason* — The terminal is no longer available to the system (see explanation for message 321). However, the name by which the terminal was known (and used possibly as the operand of the Vary Offline command) is no longer the name of the terminal. The name of the terminal has reverted to its primary name, and the old secondary name is still assigned to the terminal (eligible for use at a later time).

*Recovery* — None

324

324 SYNTAX ERROR

*Reason* — A Vary command using the symbolic terminal name has one of the following syntax errors:

- No comma between operands.
- Symbolic terminal name length greater than six characters.
- Terminal ID has missing quote (for example, 'xxbb or 'xx,---).

*Recovery* — Correct the syntax error and retry the command.

325 SYMBOLIC NAME NOT ASSIGNED TO TERMINAL	325
<p><i>Reason</i> — A Vary command using a symbolic terminal name was issued to a terminal. However, the terminal name used is not assigned to any terminal and the Vary command is rejected.</p>	
<p><i>Recovery</i> — Perform one of the following:</p> <ul style="list-style-type: none"> <li>● Issue a Vary command by using a terminal ID.</li> <li>● Assign a terminal name to the terminal (Assign command) and issue Vary command with that terminal name.</li> </ul>	
326 UNKNOWN SYMBOLIC NAME	326
<p><i>Reason</i> — A Vary command by symbolic terminal name has entered a terminal name that is not known to the system.</p>	
<p><i>Recovery</i> — Determine the correct terminal name or use the terminal physical identifier as the operand of a subsequent Vary command.</p>	
327 INVALID TERMINAL ID	327
<p><i>Reason</i> — A Vary command has been entered using a terminal physical ID which does not correspond to any terminal ID in the system.</p>	
<p><i>Recovery</i> — Correct the terminal ID value and reenter the command.</p>	
329 INVALID/MISSING OPERAND	329
<p><i>Reason</i> — The operand used to specify the vary operation action (online or offline) is either invalid or missing.</p>	
<p><i>Recovery</i> — Correct the command syntax error and retry.</p>	
330 NOT CURRENT SYMBOLIC NAME	330
<p><i>Reason</i> — A Vary command by symbolic terminal name has used a name that is not the current <i>doing business as name</i> of the terminal.</p>	
<p><i>Recovery</i> — Determine the current name of the terminal, possibly with a Display Terminal Assignment command, and reenter the Vary command.</p>	
331 CAN'T VARY SUB-TERMINAL	331
<p><i>Reason</i> — A Vary command was issued using, as the first operand, a symbolic terminal name. This name is a subcomponent name for a multi-component terminal (for example, IBM 1050) and therefore cannot be used as the argument of a Vary command.</p>	
<p><i>Recovery</i> — Determine the main component name of the terminal and retry the command.</p>	

332

332 CAN'T VARY CONSOLE

*Reason* — A Vary command has been entered using as the terminal to be operated on the symbolic name of the system operators console.

*Recovery* — None

333

333 TP LINE NOT OPEN

*Reason* — A Vary Online command was issued to a terminal but the terminal is on a T/P line which is not open. The Vary command is rejected.

*Recovery* — None; the terminal cannot be placed online during the current CCP run. A T/P line will be opened only if included in the assignment set specified for the current run of CCP.

334

334 TERMINAL HAS NO SYMBOLIC NAME

*Reason* — A Vary Online command was issued to a terminal with the use of a terminal ID. However, the terminal has no symbolic terminal name associated with it and the Vary command is rejected.

*Recovery* — Assign a symbolic terminal name to the terminal and retry the request.

335

335 TERMINAL IN ONLINE TEST

*Reason* — A Vary Offline command has been attempted to a terminal that is online but has a system operator initiated online test in progress.

*Recovery* — The terminal operator may retry the Vary command after the online test has completed.

336

336 TERMINAL BELONGS TO USER PROGRAM

*Reason* — A Vary Offline command has been attempted to a terminal that:

1. Belongs to a user program.
2. Has requested a program and a program is queued.
3. Has been selected by a queued program.

*Recovery* — None until the terminal no longer belongs to a user program.

338

338 TERMINAL ALREADY OFFLINE

*Reason* — A Vary Offline command has been received to a terminal that is already offline.

*Recovery* — None

**340 MESSAGE SENT 340**

*Reason* – A successful message has been sent from the system operator to a terminal.

*Recovery* – None

**341 SYNTAX ERROR 341**

*Reason* – A Message command has been entered in which one of the following is incorrect:

1. A 2-character ID was not used.
2. The terminal ID was not followed by an apostrophe (').
3. No text data followed the symbolic terminal name.
4. The Symbolic name was longer than six characters.

*Recovery* – Reenter the command using the correct form of the command operand.

**342 INVALID TERMINAL ID 342**

*Reason* – The 2-character terminal physical ID in the Message command operand is not the ID of any terminal on the system.

*Recovery* – Enter the Message command using the correct value for the terminal ID. This may be found from the Display Terminal Assignment command.

**343 UNKNOWN SYMBOLIC NAME 343**

*Reason* – The symbolic terminal name of the destination terminal is not in the CCP system.

*Recovery* – Use the correct symbolic terminal name for the destination terminal name. This may be found from a prior message to the console from that terminal or via Display Terminal Assignment command.

**344 NAME UNASSIGNED 344**

*Reason* – A Message command has been entered using, as the destination terminal, a symbolic name. The name is known to the CCP. However, the name is not currently assigned to a terminal.

*Recovery* – Reenter the message using either the terminal physical identifier or the current *doing business as name* of the terminal for the destination signifier. This may be obtained from the Display Terminal Assignment command or from a prior message to the system operator from that terminal.

345

345 NOT A COMMAND TERMINAL

*Reason* — The system operator has attempted to send a message to a terminal that does not have command capability.

*Recovery* — None

346

346 TERMINAL OFFLINE

*Reason* — The system operator has attempted to send a message to a terminal that is not online.

*Recovery* — Get the terminal online by use of the Vary command and then reissue the Message command.

347

347 TERMINAL BELONGS TO USER PROGRAM

*Reason* — An attempt has been made to send a message to a terminal that is currently in use by an application program.

*Recovery* — The command may be reissued after either:

1. The terminal is released by the program.
2. The program is terminated.

Terminal usage may be determined by use of the Display Terminals command.

348

348 MESSAGE TOO LONG

*Reason* — The text of Message command is longer than the terminal can handle.

*Recovery* — Correct the command and retry.

350

350 TERMINAL IN ERROR RECOVERY

*Reason* — This message is issued in response to a Message command when the requested terminal is in error recovery.

*Recovery* — None

352

352 TERMINAL IN TEST

*Reason* — This message is issued in response to a Message command when the requested terminal is in online test status.

*Recovery* — None

353

353 LINE DISCONNECTED

*Reason* — This message is issued in response to a Message command when the specified terminal is on a switched line and the line is disconnected.

*Recovery* — None

<b>360 NAME ASSIGNED</b>	<b>360</b>
<i>Reason</i> — This message is issued after a successful Assign command.	
<i>Recovery</i> — None	
<b>361 SYNTAX ERROR</b>	<b>361</b>
<i>Reason</i> — This message is issued in response to an Assign command if the input format is incorrect.	
<i>Recovery</i> — Reenter the operands in the correct format.	
<b>362 INVALID/MISSING OPERAND</b>	<b>362</b>
<i>Reason</i> — This message is issued in response to an Assign command if:	
<ul style="list-style-type: none"> <li>● An operand is missing.</li> <li>● An invalid physical terminal ID was entered.</li> <li>● An invalid symbolic terminal name was entered.</li> <li>● An invalid switched terminal table index number was entered.</li> </ul>	
<i>Recovery</i> — Retry using the right operands. Perhaps use the Display command to get missing information.	
<b>363 NAME NOT KNOWN</b>	<b>363</b>
<i>Reason</i> — This message is issued in response to an Assign command if the symbolic terminal name entered does not exist in the system.	
<i>Recovery</i> — Retry using the correct name. Use the Display command to determine the correct name.	
<b>364 CAN'T ASSIGN SUB-TERMINAL NAME</b>	<b>364</b>
<i>Reason</i> — This message tells you if the symbolic terminal name was a sub-terminal name for a multicomponent terminal like 1050.	
<i>Recovery</i> — Retry with the right name. If not known, use Display command.	
<b>365 CAN'T ASSIGN CONSOLE</b>	<b>365</b>
<i>Reason</i> — This message is issued if the symbolic name CONSOL cannot be assigned to a terminal.	
<i>Recovery</i> — Retry with correct symbolic name or physical ID. If not known, use the Display command.	

- 366** 366 NAME CURRENTLY ACTIVE
- Reason* – The symbolic name to be assigned is the current name of another terminal.
- Recovery* – You might try to find out with whom the terminal is working by using the Display command.
- 367** 367 NAME IN USE
- Reason* – The name to be assigned is already in use by a program using a terminal.
- Recovery* – None
- 369** 369 INVALID TERMINAL ID
- Reason* – The given physical terminal ID is not in the system.
- Recovery* – Use Display command to determine the correct physical ID.
- 370** 370 NAME UNAVAILABLE
- Reason* – You attempted to take away the only name from an online terminal to assign it to another terminal.
- Recovery* – If you want to take the last name, you have to place the online terminal offline (Vary command).
- 371** 371 NAME TOO LONG
- Reason* – The symbolic terminal name is longer than six characters or the comma is not placed after the sixth character.
- Recovery* – Correct the error and reenter the name.
- 372** 372 PHYSICAL CHARACTERISTICS DON'T MATCH
- Reason* – You attempted to assign names to physically different devices (for example, MLTA and BSCA).
- Recovery* – None
- 373** 373 INVALID PHONE INDEX #
- Reason* – You gave an unknown number for the system.
- Recovery* – Determine the correct phone index number from your assignment list or run the assignment list program offline to determine the number.
- 374** 374 PHONE INDEX # INVALID FOR NONSWITCHED TERMINAL
- Reason* – You gave a phone index number assigning a name to a non-switched terminal.
- Recovery* – Retry without phone index number.

375 NAME ASSIGNED 'xx' NAME IS NOW xxxxxx	<b>375</b>
<i>Reason</i> — The current name has changed.	
<i>Recovery</i> — None	
378 START TEST ON 'xx' [--LOOP]	<b>378</b>
<i>Reason</i> — A request to start an online test has been accepted. The terminal to be tested and the test number are identified in the message. If a loop test was specified, the word '--LOOP' appears.	
<i>Recovery</i> — None	
379 STOP LOOP TEST ON 'xx'	<b>379</b>
<i>Reason</i> — A request to stop a looping online test has been accepted. The terminal is identified in the message.	
<i>Recovery</i> — None	
381 TEST REQ. ALREADY ACTIVE	<b>381</b>
<i>Reason</i> — A request for an online test has been processed and the line was found to have a test request outstanding.	
<i>Recovery</i> — None, or select a different line for test.	
382 STOP INVALID NOW	<b>382</b>
<i>Reason</i> — A request to stop an online test was processed and found to be invalid. A stop is valid only to a currently running looping online test.	
<i>Recovery</i> — None, or select a different online test option(s).	
383 INVALID TEST NUMBER	<b>383</b>
<i>Reason</i> — A request for an online test has been processed and the test number that was entered was found to be invalid.	
<i>Recovery</i> — None, or select a different test number.	
384 INVALID COUNT VALUE	<b>384</b>
<i>Reason</i> — A request for an online test has been processed and the count value that was entered was found to be invalid.	
<i>Recovery</i> — None, or enter a valid count value (01-99).	
385 TERMINAL NOT OUTPUT CAPABLE	<b>385</b>
<i>Reason</i> — A request for an online test has been processed and the device to be tested was found not capable of output.	
<i>Recovery</i> — None, or select a different device for test.	



386

386 TERMINAL OFFLINE

*Reason* — A request for an online test has been processed and the device to be tested was found to be offline.

*Recovery* — None, or place the device online and enter the test request again or enter another test request specifying a different device.

387

387 TERMINAL IN DATA MODE

*Reason* — A request for an online test has been processed and the device to be tested was found to be in data mode.

*Recovery* — None, or place the device selected in command mode and enter the test request again, or enter another test request specifying another device.

388

388 SYMBOLIC NAME NOT FOUND

*Reason* — A request for an online test has been processed and the symbolic name entered was not found in the terminal name table.

*Recovery* — None, or enter the test request again using a different symbolic name, or enter the test request again using a physical ID.

389

389 INVALID TERMINAL ID

*Reason* — A request for an online test has been entered and the physical ID entered does not match any IDs contained within the system.

*Recovery* — None, or enter the test request again using a valid terminal ID.

390

390 'XX' ONLINE TEST ENDED

*Reason* — This message informs the system operator that a system-operator-initiated online test has been completed on the terminal specified by the physical terminal ID.

*Recovery* — None

391

391 SYNTAX ERROR

*Reason* — While processing an online test request, a syntax error was found within the input data.

*Recovery* — None, or reenter the test request and correct the error(s) previously entered.

392 'xx' ONLINE TEST NOT STARTED	392
<p><i>Reason</i> – The system operator has requested an online test and CCP has validated it as a legal request. However, when the request was issued to the MLTA IOCS, a non-zero start code was returned indicating that the IOCS could not start the test because the:</p> <ol style="list-style-type: none"> <li>1. Line buffer is too small.</li> <li>2. Switched line was not connected.</li> </ol>	
<p><i>Recovery</i> – 1. None</p> <ol style="list-style-type: none"> <li>2. Reenter the same test request.</li> <li>3. Reenter a different test request.</li> </ol>	
393 CANNOT START OLT, LINE CLOSED	393
<p><i>Reason</i> – The test request is directed to a terminal which is on a T/P line which is closed.</p>	
<p><i>Recovery</i> – None</p>	
394 TEST MSG. EXCEEDS 60 CHARACTERS	394
<p><i>Reason</i> – The test message entered as part of the BSCA online test request exceeds the maximum allowable length.</p>	
<p><i>Recovery</i> – Reenter the test request using a length of 60 characters or less for the test message.</p>	
395 SWITCHED LINE NOT CONNECTED	395
<p><i>Reason</i> – An online test request was entered for an MLTA terminal or a switched line. However, the switched line is not connected and the request is rejected.</p>	
<p><i>Recovery</i> – Dial the terminal to be tested in order to make the connection. Then issue an online test request.</p>	
396 SELECTED TERM. NOT A CPU	396
<p><i>Reason</i> – The BSCA terminal which was selected for test is not defined as a CPU.</p>	
<p><i>Recovery</i> – None</p>	
400 ERP ACCEPTED	400
<p><i>Reason</i> – The ERP command entered by the system operator has been accepted by CCP.</p>	
<p><i>Recovery</i> – None</p>	

**401**

**401 SYNTAX ERROR**

*Reason* — A syntax error was detected by CCP while validating an ERP command entered by the system operator.

*Recovery* — Reenter the command using the proper syntax.

**402**

**402 INVALID TERMINAL ID**

*Reason* — While entering an ERP command, the system operator entered a terminal identifier which does not exist in the system.

*Recovery* — Reenter the command with the correct terminal identifier.

**403**

**403 TERMINAL NOT IN ERROR RECOVERY**

*Reason* — The system operator entered an ERP command and specified a terminal which is not in CCP error status.

*Recovery* — None

**404**

**404 INVALID OPERAND**

*Reason* — The operand specified by the system operator with an ERP command was not bypass or retry.

*Recovery* — Reenter the command using the correct operand.

**410**

**410 [INPUT/OUTPUT] ERROR ON 'xx'**

*Reason* — This message informs the system operator that an error has occurred on an MLTA terminal with the terminal ID xx.

*Recovery* — None

*Reason* — The error condition specified by *-nn* occurred for the BSCA terminal specified by '*xx*' (during input or output) as specified.

Values for *-nn*

CCP ERP Return Code	Description	CCP ERP Action
-1	DATA CHECK: Data was received incorrectly, checking error condition detected.	1
-2	INVALID CHARACTER: An invalid character found during translation or an invalid ASCII character has been detected by BSCA.	1
-3	LOST DATA: Data received was lost because it exceeded the size of the input buffer.	1
-4	PERMANENT BSCA ERROR: Operation failed because a permanent error condition was detected.	1
-5	ABNORMAL RESPONSE: An invalid response was received from the remote station.	1
-7	NO RESPONSE TO POLLING OR ADDRESSING: The selected terminal does not respond to polling or addressing.	1
-8	TEXT TIME OUT: The terminal does not respond to attempted data transfer.	1
-9	WAIT TIME EXCEEDED: Data was not sent or received within specified wait time.	1
-10	NO CONNECTION: Connection could not be established with a remote station.	1
-11	INVALID ID's: The ID exchange with the remote station failed.	1
-12	ABORT, DISCONNECT: The switched line connected to the remote station has been lost.	1
-13	ADAPTER CHECK: A hardware check occurred on the teleprocessing line adapter.	1

CCP ERP Return Code	Description	CCP ERP Action
-14	NEGATIVE RESPONSE TO ADDRESSING: The remote terminal replied negatively to addressing.	
The following return codes are for the 3270 system only.		
-20	<ul style="list-style-type: none"> <li>● A command attempted to start a device but found it not ready</li> <li>● The power is off on the printer</li> <li>● The device is unavailable or not ready</li> </ul>	2
-22	A hardware error occurred on the printer.	2
-23	The 3270 detected a BSCA error.	1
-24	<ul style="list-style-type: none"> <li>● 3270 timeout between the device and the control unit</li> <li>● Hardware data check</li> </ul>	1
-25	Data check for copy command.	1
-26	Intervention required on from device or from device not available for copy command.	2
-27	From device busy for copy command.	2
-28	<ul style="list-style-type: none"> <li>● 3270 timeout between the device and the control unit</li> <li>● Hardware data check</li> <li>● Device no longer busy</li> </ul>	1

*Note:* For the above return codes for the 3270 system it is possible that the error condition was left over from the last operation with that terminal.

If this message is followed by message 416, indicating the terminal is in CCP error recovery, the following ERP actions are appropriate:

1. ● Retry the operation with the terminal, starting from the point of failure.

*Note:* Some terminals may start from the point of failure or some may reset themselves to the original start point.

- Bypass the operation, continue with the next operation.
  - Place the failing terminal offline.
2. ● Retry the operation with the terminal after waiting for the display operator or the system operator to intervene and (1) mechanically ready the printer, or (2) ready the display.
- Bypass the operation, continue with the next operation.
  - Place the failing terminal offline.

The following error return codes are for the 3735; none require any action.

-40	CPU attempted to send data to the 3735 before reading the 3735 data.
-41	Invalid character sent to the 3735.
-42	Buffer overflow: A block greater than 476 was sent to the 3735.
-43	3735 disk is full.
-44	3735 directory is full.
-45	Undefined header message sent to the 3735.
-46	3735 disk error while transmitting data from the 3735 disk to the CPU.

## 413 OUTPUT TO 'xx' IN CCP ERROR RECOVERY IGNORED

*Reason* — A request to send a message to the terminal with the physical identifier 'xx' was ignored by CCP. The terminal was found to be in CCP error recovery and CCP will not accept any output requests to terminals in this status.

*Recovery* — Perform one of the following:

- None, if the ignored output was initiated by CCP.
- If the ignored output was initiated by the system operator, remove the terminal from CCP error recovery and then reinitiate the output request.

414

414 'xx' SIGNED OFF BY CCP AS YYYYYY

*Reason* – A switched line has been disconnected and has been signed-off by CCP for one of the following reasons:

- Was in command mode and the connection was broken.
- Was in communication with a user program and the program terminated before the connection was reestablished.

*Recovery* – The line is reenabled for input and any terminal may call back in.

415

415 SWITCHED LINE M<sub>n</sub> DISCONNECTED – I/O PURGED

*Reason* – An error has occurred on an MLTA switched line and it has been determined that the line has been disconnected. All scheduled I/O has been purged and the line is reenabled for input.

*Recovery* – None

416

416 'xx' IN CCP ERROR RECOVERY

*Reason* – An error has been detected on a terminal that is not currently in use by a user program. CCP has placed the terminal in error recovery and is awaiting information from the system operator as to what action to perform.

*Recovery* – Perform one of the following:

- Enter an ERP command to retry the failed operation.
- Enter an ERP command to bypass the failed operation.
- Enter a Vary Offline command to the terminal.
- Run the system operator initiated online test (Test command).

417

417 'xx' IN CCP ERROR RECOVERY – BYPASSED

*Reason* – An error has occurred on the terminal specified in the message and the terminal is not in use by a user program. The terminal is eligible to be placed into CCP error recovery; however, due to one of the following reasons, CCP has taken an automatic bypass as the recovery action:

- Not enough buffer space is available in core to save the information required to retry the operation that failed.
- A switched line was disconnected during the error.
- Terminal is being place offline.

*Recovery* – None

<b>418 TP LINE Mn CLOSED</b>	<b>418</b>
<i>Reason</i> — This message tells you that the MLTA IOCS has closed an MLTA line because of hardware errors.	
<i>Recovery</i> — None	
<b>419 'xx' VARIED OFFLINE</b>	<b>419</b>
<i>Reason</i> — This message tells you that CCP has placed a terminal offline. This will happen automatically after the MLTA IOCS closes an MLTA line.	
<i>Recovery</i> — None	
<b>420 TRACE OK</b>	<b>420</b>
<i>Reason</i> — CCP has accepted a Trace command from the system operator.	
<i>Recovery</i> — The opposite trace action may be taken at any time to negate the effect of the current trace-to-disk option in effect.	
<b>421 TRACE NOT IN SYSTEM</b>	<b>421</b>
<i>Reason</i> — A Trace command has been entered and the trace option was not selected for the current CCP execution run.	
<i>Recovery</i> — None	
<b>422 INVALID OPERAND</b>	<b>422</b>
<i>Reason</i> — The Trace command operand specified was not either on or off.	
<i>Recovery</i> — Reenter the Trace command with the correct operand.	
<b>423 TRACE NOT ON</b>	<b>423</b>
<i>Reason</i> — A Trace Off command has been entered and the Trace On option is not currently in effect.	
<i>Recovery</i> — None or enter a Trace On command for trace-to-disk.	
<b>425 REJECTED — DISK TRACE I/O ERROR</b>	<b>425</b>
<i>Reason</i> — An I/O error occurred during CCP trace-to-disk. This Trace On command will not be accepted.	
<i>Recovery</i> — Call IBM Field Engineering for assistance in determining the cause of the error.	
<b>440 OK</b>	<b>440</b>
<i>Reason</i> — A successful Suspend command has been entered by the system operator.	
<i>Recovery</i> — The suspension may be lifted by the system operator by entering a subsequent Resume command.	



441

441 INVALID OPERAND

*Reason* – The operand of a Suspend command does not contain the required information.

*Recovery* – Retry the command entering the correct operands.

442

442 INVALID TASK – ID + PROGRAM NAME

*Reason* – A Suspend command by task ID and program name did not contain the correct information to properly identify which task and program is to be suspended.

*Recovery* – Reenter the Suspend command with the correct operand. If this is not known, the Display Users command may be used to determine the correct task ID and program name.

443

443 TASK ALREADY SUSPENDED

*Reason* – The program and task specified in a Suspend command is already in a suspended state.

*Recovery* – Eventually resume or cancel the program from the system operator's console.

460

460 OK

*Reason* – CCP has accepted a Resume command from the system operator.

*Recovery* – None

461

461 SYNTAX ERROR

*Reason* – A syntax error exists in a Resume command entered by the system operator.

*Recovery* – Correct the syntax error and reenter the command.

462

462 COMMANDS NOT SUSPENDED

*Reason* – A request to resume the input from command or initial mode terminals has been made but they are not currently in suspended status.

*Recovery* – None

463

463 INVALID TASK ID

*Reason* – A Resume command by task ID and program name has been entered and the specified task ID does not exist in the system.

*Recovery* – Correct the error and reenter the command. The correct task ID may be obtained by using a Display Users command.

**464 INIT REJECTED, USERS IN EFFECT****464**

*Reason* — An attempt has been made to resume the initiation of user programs by the system operator but a Suspend Users command is in effect.

*Recovery* — Perform one of the following:

1. Enter a Resume Users command.
2. Enter a Resume command by task ID and program name for each program in the system. Once each program is resumed, the Suspend Users status is dropped and Suspend Initiation command is in effect.

**465 INVALID PROGRAM NAME****465**

*Reason* — A Resume command by task ID and program name has been entered. The specified task control block is currently not in use by the program specified on the input.

*Recovery* — Reenter the Resume command with the correct program name and task ID value. If this is not known, a Display Users command may be used to determine it.

**466 SUSPEND USERS NOT IN EFFECT****466**

*Reason* — A Resume Users command has been entered by the system operator and the Suspend Users status is not currently in effect.

*Recovery* — None. The system operator may have entered a Suspend Users command and then resumed each user program individually. If this is the case, a Resume Initiation command will have to be entered to allow subsequent program requests to be honored.

**467 SUSPEND INIT NOT IN EFFECT****467**

*Reason* — The system operator has entered a Resume Initiation command and the Suspend Initiation status is not in effect.

*Recovery* — Determine if the correct operand was specified on the Resume command and reenter it if necessary.

**468 PROGRAM TERMINATING****468**

*Reason* — A Resume command by task ID and program name was entered and the program is currently being terminated. The termination could be due to a prior Cancel command having been entered or by a terminal operator having cancelled the program.

*Recovery* — None

480

480 CANCEL OK

*Reason* — The command to cancel a specific user program has been accepted by CCP. If a Suspend Users command is in effect and the last user program is terminated by a Cancel command, the Suspend Users command is automatically negated by CCP. However, Suspend Initiation command if in effect, will remain in effect.

*Recovery* — None

481

481 INVALID CANCEL REQUEST

*Reason* — The system operator request to cancel a user program has an invalid operand. This may be either an invalid task ID value or an invalid program name, or both.

*Recovery* — Correctly specify the operands and reenter the Cancel command. If the correct values are not known, they may be determined by use of the Display Users command.

482

482 PGM — NAME TOO LONG

*Reason* — This message is issued when the program name on a Cancel command was too long.

*Recovery* — Retry, or determine the program name by issuing the Display command.

483

483 TASK—ID AND/OR PGM—NAME WRONG

*Reason* — This message is issued when the task ID and program name entered are valid but they are not related to each other.

*Recovery* — Retry, or use the Display command to determine the correct information.

484

484 INVALID SYNTAX

*Reason* — This message is issued if operands are entered wrong or invalid, or if commas are misplaced.

*Recovery* — Retry

500

500 SHUTDOWN ACCEPTED

*Reason* — A successful shutdown has been started by CCP in response to a system operator request to shutdown the system.

*Recovery* — No additional terminal commands or program requests may be made of CCP. However, system operator commands may be entered to monitor or change other aspects of system status.

501 PRIOR SHUTDOWN REQUESTED	501	
<i>Reason</i> — The CCP system operator has entered a Shutdown command to CCP and a prior Shutdown command has already been accepted.		
<i>Recovery</i> — Don't enter additional Shutdown commands or any other system operator command.		
502 SHUTDOWN STARTED	502	
<i>Reason</i> — This message indicates that the last user program to be run has terminated and the final shutdown processing has been started.		
<i>Recovery</i> — None		
503 CCP	$\left. \begin{array}{l} \text{CANCEL} \\ \text{SHUTDOWN} \end{array} \right\} \text{COMPLETED}$	503
<i>Reason</i> — A successful CCP Shutdown has been completed in response to a system operator request to shutdown the system.		
<i>Recovery</i> — None		
504 DISK ERROR OCCURRED WHILE READING PCT'S	504	
<i>Reason</i> — A permanent disk error occurred while attempting to read the PCT's from \$CCPFILE to update the program usage counts.		
<i>Recovery</i> — None. However, a problem exists in either the hardware, or an IBM or user-written program where the program has modified core invalidly.		
505 DISK ERROR OCCURRED WHILE WRITING PCT'S	505	
<i>Reason</i> — A permanent disk error occurred while attempting to write the PCT's with updated program usage counts back to \$CCPFILE.		
<i>Recovery</i> — None. However, a problem exists in either the hardware, or an IBM or user-written program where the program has modified core invalidly.		
506 DISK ERROR OCCURRED WHILE WRITING FINAL DISK TRACE ENTRY	506	
<i>Reason</i> — A permanent disk error occurred while attempting to write out the final disk trace entry.		
<i>Recovery</i> — None. However, a problem exists in either the hardware, or an IBM or user-written program where the program has modified core invalidly.		

520

520 'xx' SIGNED OFF – { HOLD/DROP } NAME IS xxxxxx

*Reason* – A Sign-off command has been issued by the terminal operator. The primary name has been reassigned to this terminal, or, if there was no primary name, the first secondary name has been assigned. At Assignment time, every terminal must have at least one symbolic name associated with it. If more than one symbolic name is associated to a specific terminal, the first name given is called the primary name and those names following are the secondary names.

*Recovery* – None

521

521 'xx' RELEASED AND SIGNED OFF NAME IS xxxxxx

*Reason* – A switched line terminal has been released and the line was disconnected. The message is modified with the physical terminal ID and re-assigned the symbolic terminal name.

*Recovery* – None

522

522 'xx' NAME IS NOW xxxxxx

*Reason* – This message is issued after a successful Name command from a terminal modified the physical terminal ID and the new current symbolic terminal name.

*Recovery* – None

524

524 FOR PGM-xxxxxx (TASK-n): LINE { B/M } n DIAL # nnnnn

*Reason* – This message informs the system operator that a user program has issued an operation to a switched line which is currently not connected. The attribute set of the terminal specifies a call out. DIAL # nnnnn is one of the following:

- Actual phone number.
- \*UNSPECIFIED\* – No phone number associated with terminal name.
- \*DISK ERROR\* – Disk error while trying to ready phone number from disk.

*Recovery* – Perform one of the following:

- Dial the phone number and make the connection.
- Either a hardware or software error has occurred causing the read error. Contact IBM Field Engineering for assistance if the cause cannot be determined.

525 FOR PGM-xxxxxx (TASK-n): LINE {M/B} n WAITING TO RECEIVE CALL 525

*Reason* — This message informs the system operator that a user program has issued an operation to a switched line which is currently not connected. The attribute set for the terminal specifies answer (call in) mode.

*Recovery* — None. However, you should look for a call to come in on the line specified. If a call does not come in, you may eventually want to cancel the program.

526 xxxxxx TASK-n CMP-nn [REQR- 'xx' DUMP#-n] 526

*Reason* — A user program has been terminated abnormally.

- xxxxxx is the program name.
- TASK-n is the task ID value.
- CMP-nn is the program termination code.

The following may or may not be in the message:

- REQR-'xx' is the 2-character ID of the requesting terminal.
- DUMP#-n is the dump number that is used on the //DUMP statement for the core dump program, \$CCPDD.

*Recovery* — Give the information listed in the message to the programmer. The program termination code reason and recovery are listed in the *IBM System/3 Model 10 Disk System Communications Control Program Programmer's Reference*, GC21-7579.

527 'xx'SIGN ON {ATTEMPT/OK} 527

*Reason* — The terminal whose identifier is xx has signed-on or attempted a sign-on request.

*Recovery* — None

528 ERROR IN DATA FOR DFF AT LOCATION nnnn 528

*Reason* — The program attempted a put override operation using DFF, and an error was detected in the data area at the approximate location given in the message. This message will be followed by a program termination message giving the reason for termination.

*Recovery* — You should list the disk dump of the program to aid the programmer in determining the exact reason for the termination.

529

529 TERMINAL RELEASE: xxxxxx ('xx')

*Reason* — This message is sent to the console after a successful terminal-initiated Release command. The message is modified with the terminal name and terminal ID.

*Recovery* — None

530

530 \*\*CCP CNCL\*\* CMP-xx {DUMP#-n}

*Reason* — A cancel of CCP has been entered and is being processed by termination. If the DUMP#-n is present, it indicates the relative dump number in \$CCPFILE.

*Recovery* — None

533

533 POLL LOOP COUNT EXCEEDED ON BSCA LINE x

*Reason* — All terminals on BSCA line x are responding negatively. The poll loop count specified at Assignment has been exceeded. Polling is automatically resumed.

*Recovery* — None

534

534 INVALID TEST REQUEST FOR 'xx'

*Reason* — This message is issued when:

- You initiated a request for an online test to a terminal and the test was not accepted by BSCA.
- A terminal-initiated online test request was not accepted by BSCA or an error occurred in receiving the request.

*Recovery* — Correct the invalid request and try again.

900

900 FROM 'xx':text

*Reason* — The text is the result of a terminal Message command being sent to the console. The 'xx' is the terminal ID of the sending terminal.

*Recovery* — None

951

951 INPUT TOO LONG

*Reason* — The system operator, while entering data from the console, entered more than 82 characters (the size of the console input buffer).

*Recovery* — Reenter data.

952 NO TASK x AWAITING REPLY	952
<i>Reason</i> — The system operator has entered through the console a reply directed to task x. However, there is no task x awaiting a reply.	
<i>Recovery</i> — Reenter reply with correct task identifier if appropriate.	
990	990
<i>Reason</i> — This message is issued by either an application program or the CCP. See <i>Program Message</i> for a description of this type of message.	
<i>Recovery</i> — Perform the action as directed in the program message.	
991	991
<i>Reason</i> — This message is issued by either an application program or the CCP. See <i>Program Message</i> for a description of this type of message.	
<i>Recovery</i> — Perform the action as directed in the program message.	
992	992
<i>Reason</i> — This message is issued by either an application program or the CCP. See <i>Program Message</i> for a description of this type of message.	
<i>Recovery</i> — Perform the action as directed in the program message.	
993	993
<i>Reason</i> — This message is issued by either an application program or the CCP. See <i>Program Message</i> for a description of this type of message.	
<i>Recovery</i> — Perform the action as directed in the program message.	
<b>**ABRT**</b>	<b>ABRT</b>
<i>Reason</i> — CCP has reached a point where the entire system is being held up because the console is not available for output. Therefore, CCP terminates the current input operation at the console and begins output to the console. This situation can occur when insufficient buffer space exists due to a number of messages queued for output to the console.	
<i>Recovery</i> — Reenter the ignored data when the console output ceases.	
<b>**CNCL**</b>	<b>CNCL</b>
<i>Reason</i> — The system operator has pressed the CANCEL key on the console.	
<i>Recovery</i> — Reenter data.	
<b>**FORM**</b>	<b>FORM</b>
<i>Reason</i> — A forms check has occurred on the console.	
<i>Recovery</i> — Correct the forms check and press HALT RESET/START to clear the blank F halt.	



**TRACE TABLE OR CORE DUMP TO PRINTER PROGRAM MESSAGES**

**DP010**

**DP010 PERMANENT DISK ERROR**

*Reason* – A 5444 disk error has occurred while reading from the disk containing \$CCPFILE.

*Recovery* – 2 – Controlled cancel

**DP011**

**DP011 \$CCPDD TERMINATED**

*Reason* – This message indicates that a 2-option was taken in response to some other halt.

*Recovery* – None

**DP012**

**DP012 DUMP NUMBER TOO LARGE**

*Reason* – The 'n' value of the // DUMP n input is larger than the maximum dump value in \$CCPFILE (less than or equal to nine).

*Recovery* – 1 – Reenter the // DUMP n command using a correct value for n.

2 – Controlled cancel

**DP013**

**DP013 CORE DUMP n FINISHED**

*Reason* – This message occurs at the completion of one core dump.

*Recovery* – None

**DP014**

**DP014 TRACE TABLE DUMP FINISHED**

*Reason* – This message occurs at the end of the trace table dump.

*Recovery* – None

**DP015**

**DP015 ALL CORE DUMPS FINISHED**

*Reason* – This message indicates that all core dumps as requested by the // DUMP ALL command have been printed.

*Recovery* – None

**DP016**

**DP016 INVALID DUMP CONTROL RECORD**

*Reason* – The dump control record entered from SYSIN was not of the format // DUMP---.

*Recovery* – 1 – Reenter the command.

2 – Controlled cancel

**DP017 INVALID \$CCPFILE CHECK CHARACTERS**

**DP017**

*Reason* – This message indicates that the first two bytes of the first sector of \$CCPFILE did not verify correctly.

*Recovery* – 2 – Controlled cancel and refer to message number SU014 INITIALIZE \$CCPFILE WITH PROGRAM \$CC1BF AND ENTER ASSIGNMENT SETS.

**DP018 EXTENT ERROR ON \$CCPFILE**

**DP018**

*Reason* – This message indicates that an attempt has been made to access data outside the boundaries of \$CCPFILE. This could mean that the directory sector of \$CCPFILE is no longer valid.

*Recovery* – 2 – Controlled cancel and refer to message number SU014 INITIALIZE \$CCPFILE WITH PROGRAM \$CC1BF AND ENTER ASSIGNMENT SETS.

**DP019 \$CCPDD PROGRAM CANCELLED**

**DP019**

*Reason* – This message indicates that \$CCPDD cannot run at this time because either Assignment or CCP is currently running in the opposite level of a DPF system or some CCP program was previously running and did not controlled cancel.

*Recovery* – If a prior CCP program did not controlled cancel, perform system IPL again and restart the program.

**DP020 ERROR WHILE READING FROM SYSIN**

**DP020**

*Reason* – This message indicates that an error has occurred while reading input from SYSIN.

*Recovery* – 1 – Retry

2 – Controlled cancel. If the problem persists call IBM Field Engineering for assistance.

**DP021 SELECTED DUMP DATA INVALID, NOT FROM MOST RECENT RUN OF CCP**

**DP021**

*Reason* – The dump number selected specified a dump area which does not contain valid data.

*Recovery* – 1 – Retry using another value for nn

2 – Controlled cancel

**DP022 LOWER CORE VALUE TOO LARGE FOR THIS SYSTEM**

**DP022**

*Reason* – The lower core address (start address) in the // DUMP n control record is larger than the maximum core size of this system.

*Recovery* – 1 – Retry

2 – Controlled cancel

**DP023****DP023 \$CCPDD PROGRAM FINISHED**

*Reason* — This message indicates that \$CCPDD has read a /\* from SYSIN and has gone to normal end of job.

*Recovery* — None

**USER SIGN-ON SECURITY MESSAGES****AU010****AU010 PERMANENT DISK ERROR**

*Reason* — A 5444 disk error has occurred while reading from the disk containing \$CCPFILE.

*Recovery* — 2 — Controlled cancel. If the problem persists, call IBM Field Engineering for assistance.

**AU011****AU011 \$CCPAU TERMINATED**

*Reason* — This message indicates that a 2-option was taken in response to some previous halt.

*Recovery* — None

**AU012****AU012 \$CCPAU PROGRAM FINISHED**

*Reason* — This message indicates that \$CCPAU has gone to normal end of job.

*Recovery* — None

**AU013****AU013 EXTENT ERROR ON \$CCPFILE**

*Reason* — This message indicates that an attempt has been made to access data outside the boundaries of \$CCPFILE. This could mean that the directory of \$CCPFILE is no longer valid.

*Recovery* — 2 — Controlled cancel

**AU014****AU014 INVALID DATA CARD FROM SYSIN**

*Reason* — The data record just read by SYSIN is not one of the valid card types expected by \$CCPAU.

*Recovery* — 1 — Retry

2 — Controlled cancel

**AU015****AU015 ERROR WHILE READING FROM SYSIN**

*Reason* — This message indicates that an error has occurred while reading input from SYSIN.

*Recovery* — 1 — Retry

2 — Controlled cancel

**AU016 WARNING—SECURITY DATA EXCEEDS ALLOWABLE LENGTH**

**AU016**

*Reason* — The total number of security data bytes provided as input from SYSIN exceeds the number of bytes specified by CCP Generation.

*Recovery* — 0 — The exact number specified will be used and the rest ignored.  
2 — Controlled cancel

**AU017 WARNING—DATA BETWEEN COUNT & DATA PORTION OF INPUT RECORD**

**AU017**

*Reason* — The 1-byte between the count and data portion of the input record should be blank.

*Recovery* — 1 — Retry  
2 — Controlled cancel

**AU018 WARNING—INPUT DATA RECORD LESS THAN SPECIFIED BY COUNT FIELD**

**AU018**

*Reason* — This message indicates that the number of data bytes from SYSIN is less than specified by the input count field.

*Recovery* — 1 — Retry  
2 — Controlled cancel

**AU019 WARNING—INPUT DATA RECORD EXCEEDS LENGTH IN COUNT FIELD**

**AU019**

*Reason* — This message indicates that the number of bytes from a SYSIN record exceeds the number specified by the input count field.

*Recovery* — 1 — Retry  
2 — Controlled cancel

**AU020 WARNING—NON NUMERIC DATA FOUND IN DATA RECORD**

**AU020**

*Reason* — While processing a Z-type input record from SYSIN, at least one byte of non-numeric data was found. This record type must contain numeric data only.

*Recovery* — 1 — Retry  
2 — Controlled cancel

**AU021****AU021 WARNING—COUNT FIELD VALUE IS ODD NUMBER, MUST BE EVEN**

*Reason* — While processing an X-type input record from SYSIN, the count value entered in positions 2 and 3 of the input record was found to be odd. This type of input record must have an even count.

*Recovery* — 1 — Retry

2 — Controlled cancel

**AU022****AU022 WARNING—TOTAL SECURITY DATA LESS THAN CCP GENERATION SPECIFICATION**

*Reason* — The total number of security data bytes processed is less than the number of bytes specified by CCP Generation.

*Recovery* — 0 — Proceed and use as many as entered.

1 — Read more records from SYSIN.

2 — Controlled cancel

**AU023****AU023 SECURITY DATA MODULE CONTENTS**

*Reason* — Following this message, the contents of the security data to be written to data module \$CC4Z9 will be printed on SYSLOG.

*Recovery* — None

**AU024****AU024 \$CCPAU PROGRAM CANCELLED**

*Reason* — This message indicates that \$CCPAU cannot run at this time because either Assignment or CCP is currently running in the opposite level of a DPF system.

*Recovery* — None

**AU025 WARNING—SECURITY DATA MODULE SIZE UNEQUAL TO CCP  
GENERATION SPECIFICATION**

**AU025**

- Reason* — The size of the user security module \$CC4Z9 is not the same as the length of user security information specified at CCP Generation. Either of the following may have occurred:
- More than one copy of CCP was generated, and the \$CCPFILE to be mounted with one copy of the generated system is being used with the other copy.
  - The user security data module \$CC4Z9 has been modified by the user through a means other than \$CCPAU.

- Recovery* — Perform one of the following:
- Respond to the halt with a 2 option (controlled cancel).
  - If the copy of \$CCPFILE mounted is not appropriate for the copy of the generated system, mount the appropriate file or system.
  - If the user security data module \$CC4Z9 has been modified by the user, recreate the module in its initial form (using that portion of the input to Generation pass 2); then rerun \$CCPAU.

**AU026 WARNING—DATA FIELD IS TOO LONG FOR THIS RECORD TYPE**

**AU026**

- Reason* — This message indicates that the data field length for an I, J, K, or L-type input record has been exceeded. The limits on input length are as follows:
- I - 3 positions and sign
  - J - 5 positions and sign
  - K - 8 positions and sign
  - L - 10 positions and sign

- Recovery* — 1 — Retry
- 2 — Controlled cancel

**AU027**

**AU027 WARNING—DATA VALUE TOO LARGE FOR THIS RECORD TYPE**

*Reason* — This message tells you the input value limits have been exceeded for an I, J, K, or L-type record. The limits are shown in decimal value and are:

I - 256

J - 65,585

K - 16,777,215

L - 4,294,967,295

*Recovery* — 1 — Retry

2 — Controlled cancel

## Appendix C. Sample Printout of Commands

Examples of the commands are given in this appendix. The commands and the CCP response is shown. These are the commands you will be issuing, which have been described in *Chapter 4. Controlling the CCP*.

### Message

### Message command

```
MSG 'M3', THIS IS A TEST MESSAGE TO TERMINAL 'M3'  
P/340 MESSAGE SENT
```

### Display Replies

### Display commands

```
DISPLAY REPLIES  
P/220 AWAITING REPLIES  
P/221 TASK ID=1
```

### Display Queue

```
DISPLAY QUEUE  
P/300 QUEUE DISPLAY  
P/302 N272C MRRPG1
```

### Display Terminals

```
DISPLAY TERMINALS  
P/270 TERM ID=M1 TASK=P ON LINE MODE=INIT REQ=N FSB=00 **ERP* *TEST*  
P/270 TERM ID=M2 TASK=P ON LINE MODE=INIT REQ=N FSB=00 **ERP*  
P/270 TERM ID=M3 TASK=1 ON LINE MODE=DATA REQ=Y FSB=01  
P/270 TERM ID=M4 TASK=P ON LINE MODE=CMND REQ=Y FSB=00  
P/270 TERM ID=M5 TASK=P ON LINE MODE=CMND REQ=N FSB=00 **ERP*  
P/270 TERM ID=M6 TASK=P ON LINE MODE=STBY REQ=N FSB=00  
P/270 TERM ID=M7 TASK=P ON LINE MODE=CMND REQ=N FSB=00  
P/270 TERM ID=M9 TASK=2 ON LINE MODE=CMDI REQ=Y FSB=01  
P/270 TERM ID=B0 TASK=P OFFLINE MODE=INIT REQ=N FSB=00  
P/270 TERM ID=B1 TASK=P OFFLINE MODE=INIT REQ=N FSB=00  
P/270 TERM ID=B2 TASK=1 ON LINE MODE=DATA REQ=N FSB=00
```

### Display Terminals Using Symbolic Terminal Name

```
DISPLAY TERMINALS,N272CA  
P/270 TERM ID=M3 TASK=1 ON LINE MODE=DATA REQ=Y FSB=01
```



## Display commands

### Display Terminals Using Terminal Physical Identification

```
DISPLAY TERMINAL, 'M3'  
P/270 TERM ID=M3 TASK=1 ON LINE MODE=DATA REQ=Y FSB=01
```

#### Display Terminal Assignment

```
DISPLAY TERMADDR  
P/240 N1050X M5  
P/240 N27C M6  
P/240 N27DTC M9  
P/240 N27SA M1  
P/240 N27SX M2  
P/240 N272CA M3  
P/240 N272CX M4  
P/240 N2741 M7  
P/240 N32102 B0  
P/240 N32112 B1  
P/240 N32121 B2  
P/240 SECDRY M1*
```

#### Display Terminal Assignment Using Symbolic Terminal Name

```
D TERMADDR, N272CA  
P/240 N272CA 'M3'
```

#### Display Users

```
D U  
P/280 TSK PGMNAM #CORE #T #F #U STATUS  
P/281 1 CCPIVP 03.75K 00 00 1 W-8000  
P/281 2 00. K 00 00 0 W-0020 *ALLOCATION*
```

#### Display Users Using User Task Identification

```
DISPLAY USERS, 2  
P/295 TASK RESOURCES  
P/PRINTER  
P/5424  
P/M3  
P/N272CA  
P/MODE-DATA  
P/DISK-DIRORD02  
P/DISK-INXORD03
```

#### Display Users Using Last

```
DISPLAY USERS, LAST  
P/299 LAST TASK-3
```

**Allocate MFCU to Other Level**

```
ALLOCATE MFCU,OTHER
P/180 OK
ALLOCATE MFCU,CCP
P/180 OK
```

**Allocate command**

**Suspend Users**

```
SUSPEND USERS
P/460 OK
```

**Suspend commands**

**Suspend Using Task Identification and Program Name**

```
SUSPEND 1,MRRPG1
P/440 OK
```

**Suspend Initiation**

```
SUSPEND INIT
P/460 OK
```

**Suspend Commands**

```
SUSPEND COMMANDS
P/460 OK
```

**Resume Users**

```
RESUME USERS
P/460 OK
```

**Resume commands**

**Resume Using Task Identification and Program Name**

```
R 1,MRRPG1
P/460 OK
```

**Resume Initiation**

```
RESUME INIT
P/460 OK
```

**Resume Commands**

```
RESUME COMMANDS
P/460 OK
```

**Vary commands****Vary Using Symbolic Terminal Name and Online**

```
V N27SA,ONLINE
P/320 VARIED ONLINE AS N27SA
```

**Vary Using Symbolic Terminal Name and Offline**

```
V N1050X,OFF
P/321 TERMINAL BEING VARIED OFFLINE
```

**Vary Using Terminal Physical Identification and Online**

```
V 'M1',ONLINE
P/320 VARIED ONLINE AS N27SA
```

**Vary Using Terminal Physical Identification and Offline**

```
V 'M1',OFFLINE
P/321 TERMINAL BEING VARIED OFFLINE
```

**Assign command****Assign Symbolic Name and Terminal Physical Identification**

```
ASSIGN SECDRY,'M2'
P/375 NAME ASSIGNED,M1 NAME IS NOW N27SA
```

**ERP commands****ERP Using Physical Terminal Identification and Retry**

```
C/990 MLTM 02,AF02,23,008002 TIMEOUT
C/410 OUTPUT ERROR ON 'M3'
!C/416 'M3' IN CCP ERROR RECOVERY
ERP 'M3',RETRY
P/400 ERP ACCEPTED
```

**ERP Using Physical Terminal Identification and Bypass**

```
C/990 MLTM 02,AF02,23,008002 TIMEOUT
C/410 OUTPUT ERROR ON 'M3'
!C/416 'M3' IN CCP ERROR RECOVERY
ERP 'M3',BYPASS
P/400 ERP ACCEPTED
```

**Trace commands****Trace On**

```
TRACE ON,CCP
P/420 OK
TRACE ON,MLTA
P/420 OK
TRACE ON,BSCA
P/420 OK
```

**Trace Off****Trace commands**

```
TRACE OFF,CCP  
P/420 TRACE OK
```

**Test Using Symbolic Terminal Name and Test Number****Test commands**

```
T N272CA,2  
P/378 START TEST ON 'M3'  
C/390 'M3' ONLINE TEST ENDED
```

**Test Using Symbolic Terminal Name and Loop**

```
TEST N272CA,2,LOOP  
P/378 START TEST ON 'M3'-LOOP
```

**Test Using Symbolic Terminal Name and Stop**

```
TEST N272CA,STOP  
P/379 STOP LOOP TEST ON 'M3'  
C/390 'M3' ONLINE TEST ENDED
```

**Test Using Physical Terminal Identification and Test Number**

```
T 'M3',2  
P/378 START TEST ON 'M3'  
C/390 'M3' ONLINE TEST ENDED
```

**Test Using Physical Terminal Identification and Loop**

```
TEST 'M3',2,LOOP  
P/378 START TEST ON 'M3'-LOOP
```

**Test Using Physical Terminal Identification and Stop**

```
TEST 'M3',STOP  
P/379 STOP LOOP TEST ON 'M3'  
C/390 'M3' ONLINE TEST ENDED
```

**Test Using Symbolic Terminal Name, Test Number, and Times Sent**

```
TEST N32102,6,01  
P/378 START TEST ON 'B0'  
C/390 'B0' ONLINE TEST ENDED
```

**Test commands****Test Using Symbolic Terminal Name, Test Number, Times Sent, and Message**

```
T N32101,0,02,MESSAGE  
P/378 START TEST ON 'BO'  
C/390 'BO' ONLINE TEST ENDED
```

**Test Using Physical Terminal Identification, Number and Times Sent**

```
TEST 'BO',14,01  
P/378 START TEST ON 'BO'  
C/390 'BO' ONLINE TEST ENDED
```

**Test Using Physical Terminal Identification, Test Number, Times Sent, and Message**

```
T 'BO',0,04,MESSAGE  
P/378 START TEST ON 'BO'  
C/390 'BO' ONLINE TEST ENDED
```

**Cancel commands****Cancel Using Task Identification and Program Name**

```
CANCEL.1,MRRPG1  
P/480 CANCEL OK  
T/526 MRRPG1 TASK-1 CMP-2A REQR-'M3' DUMP#-1
```

**Cancel CCP**

```
CANCEL CCP  
P/480 CANCEL OK  
1 P/503 CCP CANCEL COMPLETED  
1EJ
```

**Shutdown command****Shutdown CCP**

```
SHUTDOWN  
P/500 SHUTDOWN ACCEPTED  
1 P/503 CCP SHUTDOWN COMPLETED  
1EJ
```

**TRACE TABLE OR CORE DUMP TO PRINTER PROGRAM (\$CCPDD)**

This program prints the trace table or core dumps from the disk file, \$CCPFILE.

**Print trace table**

If you selected the trace facility during Startup, you can issue the Trace command to tell CCP to save significant CCP system events in the trace table area in \$CCPFILE. When CCP terminates with the 'EJ' halt, you can use this program to print the trace table information.

This program is intended to be run immediately after a run of CCP and before any system manipulation of \$CCPFILE such as a COPY, MOVE, etc. Any such system manipulation of \$CCPFILE could invalidate the disk pointers within the \$CCPFILE directory. Also, once Startup has been performed, any incorrect disk pointers are corrected, but the contents of any previously taken dumps are invalidated.

OCL statements are used to specify what combination of the contents of \$CCPFILE is to be printed. The following OCL statements are used:

OCL STATEMENTS													
1	4	8	12	16	20	24	28	32	36	40	44	48	52
//	LOAD	\$CCPDD,	R1										
//	FILE	UNIT-R2,	PACK-WORK2,	NAME-\$CCPFILE									
//	RUN												
*	COMMENT	CARD	(OPTIONAL)										
//	DUMP	(SEE	FOLLOWING	EXPLANATION)									
/*													

The format of the dump statement is:

Statement Format	Portion of \$CCPFILE to be Printed
// DUMP n	This format causes a core dump of a particular program to be printed. The n is the core dump number that is printed in message 526.
// DUMP ALL	This format causes all core dumps in \$CCPFILE to be printed.
// DUMP TRACE	This format causes the contents of the trace table beginning with the oldest entry and finishing with the most recent entry to be printed.

## Main storage dump program

### STAND-ALONE DUMP PROGRAM

Four stand-alone dump programs exist in the source library on the distributed CCP disk pack. All dump programs are punched into cards during Generation. The program that you should use depends on the type of print chain used on your line printer.

The programs provided are:

- CCPDAN - Used with the AN2 or LC 2 print chain
- CCPDHN - Used with the HN2 print chain
- CCPDPN - Used with the PN2 print chain
- CCPDTN - Used with the TN5 print chain

Use this program when the SYSTEM RESET/START CEFE dump cannot be used.

Perform the following to use this program:

1. Load the card deck from the MFCU in IPL mode.
2. A CU halt is displayed. Set the Address/Data switches to the location where the dump is to be loaded and press HALT RESET/START. It is recommended that it be loaded at X'0600'. The core dump program uses X'0300' bytes of core.
3. A 5E halt is displayed after the dump program is loaded.
4. Set the two leftmost Address/Data switches to the starting address to be dumped and set the two rightmost switches to the ending dump address as in normal CEFE operation. The entire contents of core may be dumped by entering 00 in the leftmost switches and one of the following in the rightmost switches:
  - 5F - 24K
  - 7F - 32K
  - BF - 48K
  - FF - 64K
5. Press HALT RESET/START.

The online tests enable you to test a line connection without interrupting data transfer on other lines. The tests consist of sending a known message over a line, then determining whether or not the message was received correctly. Test results for BSCA are logged on the console when the test is completed.

An online test only indicates line conditions existing at the time of the test. If the test reveals the presence of line problems, you must decide whether or not the probability of successful transmission is great enough to justify continued transmission over the line.

Compare online test results in conjunction with the terminal statistics as logged in the MLTA error file (MLTERFIL) to discover significant trends in the appearance of line problems.

**MLTA ONLINE TESTS FOR THE 1050, 2740/2741, AND CMCST TERMINALS**

Use the Test command to initiate an online test for an MLTA terminal. You must supply the test number when issuing the command. The following chart shows the test title, test number, and description of the test.

Test Title	Number	Description
All Characters Test	2	Prints the standard character set for checkout of the terminal
Tilt Test	3	Checks the IBM SELECTRIC print mechanism
Rotate Test	4	Checks the IBM SELECTRIC print mechanism
Twist Test	5	Checks the IBM SELECTRIC print mechanism
SELECTRIC Analyzer Test	6	Analyzes the carrier return mechanism to determine if it performs within specifications

**Online tests**

**What to do in case of errors**

**MLTA online tests**



**BSCA test – CPU only**

**BSCA ONLINE TESTS**

Use the Test command to initiate an online test for a BSCA terminal. You must supply the test number when issuing the command. The following chart shows the test number and description of the tests.

Test Number	Description
0	Receive and acknowledge the test message the specified number of times. The test message must not be more than 60 characters long.
1	Transmit the test message the specified number of times. The formatted test request must not be more than 60 characters long.
6	Transmit 36 alphameric characters, A-Z and 0-9, the specified number of times. Transmit the characters in ASCII (ASCII adapter only).
14	Transmit 36 alphameric characters, A-Z and 0-9, the number of times specified. Transmit the characters in EBCDIC (EBCDIC adapter only).

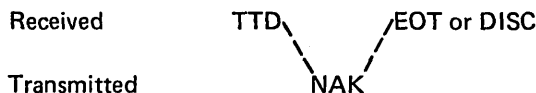
**BSC Counters**

**Device Counter Logout program \$BSDL**

BSC counters and statistics are recorded in main storage during execution and logged to disk when a BSC file is closed or before an online test. After CCP has terminated, BSC counters and statistics can be displayed by the Device Counter Logout program (\$BSDL). For a description of the operating procedures required to display the statistics, see the *IBM System/3 Model 10 Disk System Operator's Guide, GC21-7508*.

MLMP compiles the following statistics as it monitors receive and transmit operations:

1. Number of text blocks sent successfully.
2. Number of text blocks received successfully.
3. Number of negative acknowledgements (NAK) received in response to text sent.
4. Number of data checks that occurred on text received.
5. Number of forward aborts received. A forward abort received is:



6. Number of EOTs (\$BCERR completion code) received in response to data transmitted.
7. Number of adapter checks that occurred while transmitting.

8. Number of adapter checks that occurred while receiving.
9. Number of invalid responses received to text transmitted.
10. Number of inquiries (ENQ) sent in response to positive acknowledgements (ACK).
11. Number of blocks received from which data was lost.
12. Number of disconnect timeouts and abortive (cancel) disconnects.
13. Number of timeouts that occurred while receiving text.

For multipoint control stations the following statistics are also recorded.

1. Number of unsuccessful transmissions for each terminal address.
2. Number of successful transmissions for each terminal address.



## Appendix F. Operating Considerations

1. The INTERRUPT key on a DPF system is not supported for the CCP level. It is your responsibility to avoid using this key for the CCP program level. If it is used in the CCP program level, unpredictable results will occur. However, it may be used for the non-CCP level.
2. OCL input for the non-CCP level on a DPF system must be from a card read device, not from the console. Procedures on disk are permitted.
3. A unit record device may not be shared by concurrent programs running under CCP. Once a program terminates, the device is available to another program running under CCP or may be made available to the other level in a DPF system (see *How to Change Device Status*).
4. The halts that you are familiar with when operating a System/3 without CCP, are handled very differently when the CCP is in control of the System/3; refer to *Chapter 6. Operational Stage Message Formats*. The appropriate action to take when a U— halt appears in the CCP program level during the operational stage of CCP is explained in *Chapter 7. CCP Halts*.
5. All console messages are identified by a prefix indicating the issuer of the message (task ID), whether a response is required, and the message number. All responses to these messages are given through the console using a task ID to identify the response.
6. Once CCP is loaded, you must not enter a // LOG CONSOLE statement.
7. When operating the non-CCP program level of a DPF system, any use by DSM of a unit record device that is either not ready or has an I/O error may prevent CCP from processing until the not-ready or error condition is cleared.



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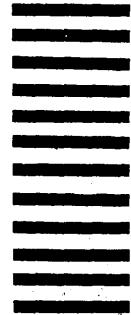
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