

## **Chapter 2**

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# **Local Control Point**



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# LOCAL CONTROL POINT

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## INTRODUCTION

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Local Control Point (LCP) is an exclusive program that provides on-line viewing of 1374 system (control unit, host, and device) information and configuration functions. LCP is used to configure host and device parameters and options. LCP does not interrupt system operations.

This chapter is designed as a reference chapter. It discusses the LCP commands and parameters. It is not intended as a thorough explanation of all data communications features.

LCP may be used in conjunction with Offline Utilities, ACS, LAN, and X.25 options. Offline Utility definitions must be made prior to LCP configuration. Refer to the *1374 Offline Utility, LAN or ACS Operations Manual* for details.

This chapter contains:

- **How to Use LCP** – This section describes LCP access, command format, and error messages.
- **Privilege** – This section discusses privilege-level LCP.
- **Test** – This section describes the Test command that generates the IBM Test 0 pattern.
- **Operator Generated Alert** – This section describes the Alert command that sends an Alert message to the host.
- **Configure** – This section describes the Configure command.
- **Display** – This section discusses the Display command.
- **Echo** – This section describes how the Echo command checks the keyboard and screen for correct character output.
- **Host** – This section describes the Host command used to activate and deactivate the host link.
- **ASCII Host Printer Assignments** – This section describes how to assign A/A or coax printers to A/A hosts.
- **Read** – This section describes the Read command used to read system configuration data from the system diskette to the 1374 Control Unit memory.
- **Host Selection** – This section describes the Host Selection command and its relation to Multiple Logical Terminals (MLT).
- **Write** – This section describes the Write command used to write the system configuration from the control unit memory to the system diskette.

# LOCAL CONTROL POINT

## HOW TO USE LCP

### LCP COMMANDS

LCP has two command levels: basic and privilege. Basic-level commands display terminal status, configuration data, and test messages. Privilege-level commands allow host system configuration and activation/deactivation. Access to privilege-level commands is password protected. All basic-level commands may be used in privilege-level authorization. Table 2-1 lists LCP commands and corresponding authorization levels.

Command	Mnemonic	Level	Description
Test	/	Basic	Initiates IBM Test 0 pattern
Operator Generated Alert	A	Basic	Generates Alert message to the host
Configure	C	Privilege	Displays CONFIGURE options menu
Device Authorization	C D		Authorizes port device access to A/A host
Control Unit Environment	C E		Configures control unit parameters
Foreign Language	C F		Configures LCP languages
Host	C H		Configures IBM hosts
Logical Units	C L		Configures logical units
Printer Authorization Matrix	C M		Configures printer authorization matrix
News	C N		Defines messages
Terminal Options	C O		Configures terminal and A/A host options
RTM/Alerts	C R		Configures RTM/Alerts parameters
Multiplexer	C W		Configures physical and logical ports
Display	D	Basic	Displays DISPLAY options menu
Printer Assignments	D A		Displays printer assignments
Printer Classes	D C		Displays printer class assignments
Device Authorization Matrix	D D		Displays devices for A/A host access
Control Unit Environment	D E		Displays control unit parameters
Host	D H		Displays IBM host parameters
Logical Units	D L		Displays logical unit assignments
Printer Authorization Matrix	D M		Displays printer authorization matrix
News	D N		Displays 160-character messages
Terminal Options	D O		Displays terminal and A/A host options
Ports	D P		Displays current port assignments
RTM/Alerts	D R		Displays RTM/Alerts parameters
Terminal	D T		Displays terminal statistics
Multiplexer	D W		Displays physical and logical ports
Echo	E	Basic	Echoes input string
Host	H	Privilege	Displays HOST options menu
Activate	H A		Activates host link
Deactivate	H D		Deactivates host link

Table 2-1. LCP Commands

## LOCAL CONTROL POINT

Command	Mnemonic	Level	Description
ASCII Host Printer Assignments	Q	Privilege	Assigns A/A or coax printers
Read	R C	Privilege	Reads configuration to control unit
Host Selection	S	Basic	Displays the Host Selection menu
Write	W C	Privilege	Writes configuration to diskette

Table 2-1. LCP Commands (Continued)

### ACCESSING LCP

#### BASIC-LEVEL LCP

To access basic-level LCP, press the Alt and Test keys simultaneously. The basic-level LCP menu appears (see Figure 2-1).

```
====>
Enter LCP command
-----
LCP command options
-----
/   TEST
A   OPERATOR GENERATED ALERT
D   DISPLAY
E   ECHO
S   HOST SELECTION
-----
Key usage in LCP ownership
PF3 - display prompt message
PF7 - scroll backward
PF8 - scroll forward
PA1 - change Operator Information Line mode
TEST - return to application session
```

Figure 2-1. Basic-Level LCP Menu

#### PRIVILEGE-LEVEL LCP

To activate privilege-level LCP, type P and press the Tab key. Type the password and press Enter. The privilege-level menu appears (see Figure 2-2). See the Privilege command for details.

**NOTE:** When the LAN or X.25 options are used, the LCP privilege-level menu displays additional options.

The basic- and privilege-level menus also appear when PF3 is pressed, an unformatted screen is entered, or a blank command field is entered.

## LOCAL CONTROL POINT

```
====>
Enter LCP command
-----
LCP command options
-----
/   TEST
A   OPERATOR GENERATED ALERT
C   CONFIGURE
D   DISPLAY
E   ECHO
H   HOST
Q   ASCII HOST PRINTER ASSIGNMENTS
R   READ
S   HOST SELECTION
W   WRITE
-----
Key usage in LCP ownership
PF3 - display prompt message
PF7 - scroll backward
PF8 - scroll forward
PA1 - change Operator Information Line mode
TEST - return to application session
```

Figure 2-2. Privilege-Level LCP Menu

### EXITING LCP

The Alt and Test key sequence exits LCP and returns the terminal screen to host session activity.

### COMMAND CONVENTIONS

Most LCP command mnemonics are two letters. The first letter is the command letter and the second letter is the option letter. Mnemonics are not case sensitive; they may be in upper or lower case letters. Some LCP command mnemonics use variables. Required variables are enclosed in braces ( { } ). Optional variables are enclosed in brackets ( [ ] ).

### COMMAND EXECUTION

There are two ways to execute a command: dual-step or single-step.

- Dual-step – At the LCP menu, type the command letter by itself, then press Enter. The menu associated with the particular command appears. Type the desired option letter and press Enter.
- Single-step – At the LCP menu, type the complete command mnemonic (and a variable if applicable), then press Enter. For example, to execute the Display News command, type DN at the LCP menu. Commands may be typed with or without a space between the letters.

## ERROR MESSAGES

Some of the error messages that display on the screen if a command is issued incorrectly are:

“Format Error - xxx” – Incorrect data (xxx) were detected in the command field after a valid mnemonic.

“Invalid Command Option” – An incorrect command mnemonic was typed.

“Invalid Parameter” – An incorrect parameter was typed.

“User Is Not Authorized to Issue This Command” – A privilege-level mnemonic was typed at the basic-level LCP menu.

## TERMINAL SCREEN

### FORMAT

In LCP, the terminal screen is formatted into three fields: command, response, and display. LCP commands are typed in the command field. The response field displays directions or error messages. The display field contains screens related to the command (see Figure 2-3).

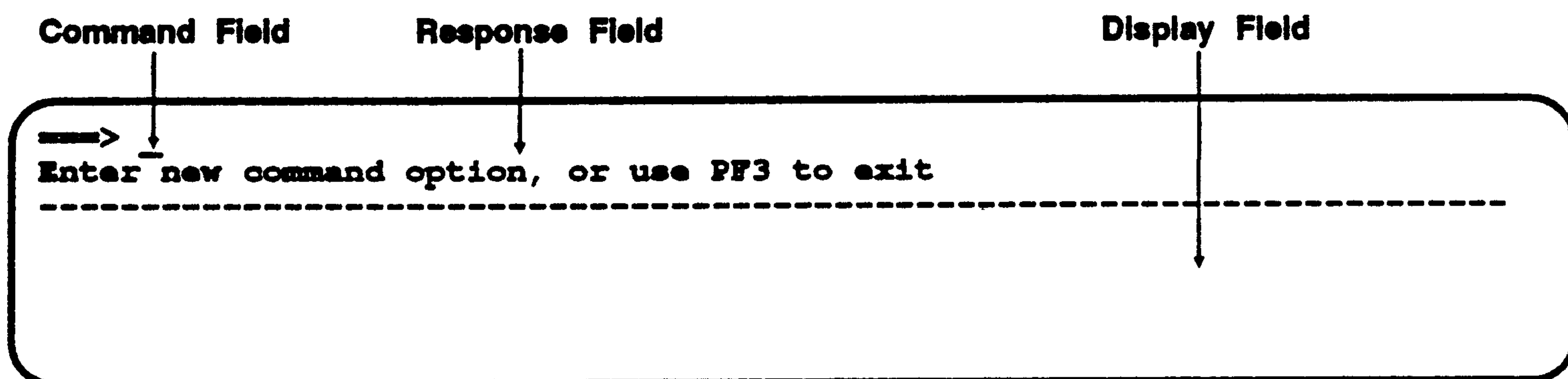


Figure 2-3. LCP Screen Format

## NUMBERS

Most numbers in LCP screens are decimal. In some cases, such as the Configure Host screen, hexadecimal parameters are used for the host processor address and XID bytes.

## SPECIAL KEYS

The following keys have special functions in LCP:

Alt & EOF	Displays last transaction time indicator (LTTI) if the function is enabled
Alt & TEST	Activates or deactivates LCP
Attn	Toggles the terminal beep on or off
Enter	Completes a command entry or updates the screen

## LOCAL CONTROL POINT

PA1	Alternates between EXTRA 1 and IBM Information Area modes
PA2	Alternates between EXTRA 2 and IBM Information Area modes
PF3	Exits a command screen and redisplayes the LCP menu
PF7	Scrolls the terminal screen backward
PF8	Scrolls the terminal screen forward
PF Keys	All PF keys except PF3, PF7, and PF8 complete a command entry or update the screen

**NOTE:** In some LCP screens, such as the Host Selection menu, the PF keys perform unique functions.

### MODIFYING LCP SCREENS

Enter, modify, or add data as required. To change a parameter, type over the existing value. Press Tab key to move from column to column.

Press PF7 or PF8 to scroll the screen. Prior to scrolling, you must press Enter to save changes to the current screen. If you do not press Enter, all changes are lost. There is one exception: in the Configure Logical Units screen, PF7 and PF8 act as Enter when pressed and save all changes made to the screen.

The LCP screens are not dynamic. In other words, the screens do not automatically update when changes are made. Press Enter to update the screen.

### SAVING CHANGES

When finished typing all data, press Enter, then PF3 to exit the screen. Pressing Enter temporarily saves the information in the control unit memory.

To save data permanently, use the Write Configuration (WC) command to write the data to the system diskette.

## PRIVILEGE – BASIC/PRIVILEGE COMMAND: P

The Privilege command changes LCP access from basic- to privilege-level or vice versa. It is also used to change the privilege-level access password.

### ACCESSING PRIVILEGE-LEVEL LCP

A password is required to access privilege-level LCP. The default password is PASS. To access privilege-level, type P in the command field and press the Tab key to move the cursor to the password field at the right-hand side of the screen. Type the password and press Enter. The password field and the password do not appear (see Figure 2-4).

## LOCAL CONTROL POINT

If the password is typed correctly at the basic-level LCP menu, the privilege-level LCP menu appears. If the password is incorrect or is not typed, the basic-level LCP menu remains. If the password is typed in the command field rather than the password field, the message "Format Error" appears.

```
Enter Password
      |
      v
(Passw ord Field)

====> P
Enter LCP command
-----
LCP command options
-----
/   TEST
A   OPERATOR GENERATED ALERT
D   DISPLAY
E   ECHO
S   HOST SELECTION
-----
Key usage in LCP ownership
PF3 - display prompt message
PF7 - scroll backward
PF8 - scroll forward
PA1 - change Operator Information Line mode
TEST - return to application session
```

Figure 2-4. Basic-Level LCP Menu – Accessing Privilege-Level LCP

### RETURNING TO BASIC-LEVEL LCP

To leave privilege-level LCP, type P in the command field. Then the basic-level LCP menu appears.

### CHANGING THE PASSWORD

The password may be changed at any time. To change the password, LCP must be in privilege-level.

Type P NEW in the command field, then press the Tab. Type the desired password and press Enter. The password may be one to four letters (see Figure 2-5). Type the new password carefully because the password does not appear on the screen. The message "Accepted" appears if the operation is successful. The password remains in effect until it is changed or the control unit is re-IMLed.

## LOCAL CONTROL POINT

---

```
Enter New Password
      |
      v
(Passw ord Field)

====> P NEW
Enter LCP command
-----
LCP command options
-----
/   TEST
A   OPERATOR GENERATED ALERT
C   CONFIGURE
D   DISPLAY
E   ECHO
H   HOST
Q   ASCII HOST PRINTER ASSIGNMENTS
R   READ
S   HOST SELECTION
W   WRITE
-----
Key usage in LCP ownership
PF3 - display prompt message
PF7 - scroll backward
PF8 - scroll forward
PA1 - change Operator Information Line mode
TEST - return to application session
```

Figure 2-5. Privilege-Level LCP Menu – Modifying Password

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## TEST – BASIC/PRIVILEGE COMMAND: /

---

The Test command initiates the IBM Test 0 pattern. This test checks the operation of various keyboard functions, the selector pen, the magnetic card reader/hand scanner function, and the audible alarm (see Figure 2-6).

### INITIATING THE TEST

To start the test, type / in the command field at the LCP menu, then press Enter.

```
====>
-----
TEST XX74;00
?SEL PEN          SEL PEN
&SEL PEN          >SEL PEN
DISPLAY          INSERT CK _
```

Figure 2-6. Test Screen

---

## OPERATOR GENERATED ALERT – BASIC/PRIVILEGE COMMAND: A

---

The Operator Generated Alert command sends an Alert message to the host. It is used with RTM/Alerts. See “Configure RTM/Alerts” command for more information.

### ACCESSING THE ALERT SCREEN

Type A at the LCP menu, then press Enter. If your terminal has the Alerts feature enabled, the screen in Figure 2-7 appears. If Alert is not enabled, the message “User Is Not Authorized To Issue This Command” appears.

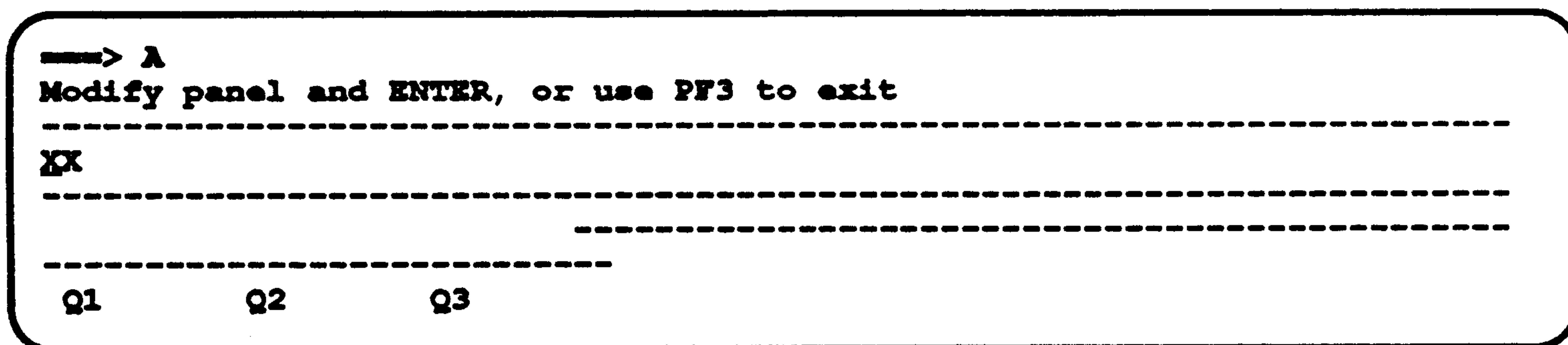


Figure 2-7. Operator Generated Alert Screen

### SENDING AN ALERT MESSAGE

Type your user action code (01 - 20) where the XX letters appear as shown in Figure 2-7.

If the code is valid, type up to 120 characters of text and up to three eight-character qualifiers (Q1 - Q3). Press Enter to send the message.

If the user action code is invalid, the message “Invalid Parameter Is Displayed” appears on the screen. If this occurs, type the correct user action code.

If the message is valid and another Alert is not pending, the message is queued for transmission to the host. The message “Alert Message Has Been Queued to The Host” appears.

If the message is valid but another Alert message is pending, the message “Operator Generated Alert Already Queued” appears. If this occurs, resend the message later.

### RECEIVING A HOST RESPONSE

The host response, if any, depends on the host software. The operator generated alert feature only sends a message and does not support any specific host response.

## LOCAL CONTROL POINT

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### CONFIGURE – PRIVILEGE COMMAND: C

---

Host and device parameters are configured and modified with the Configure command.

Complete the Configuration Worksheet found in Appendix F prior to configuring the system.

#### ACCESSING THE COMMAND OPTIONS MENU

Type C at the LCP menu, then press Enter to display the Configure Command Options menu.

```
====> C_
Enter next option
-----
LCP command options
-----
D      DEVICE AUTHORIZATION MATRIX
E      CONTROL UNIT ENVIRONMENT
F      FOREIGN LANGUAGE SELECTION
H h    HOST
L      LOGICAL UNITS
M      PRINTER AUTHORIZATION MATRIX
N      NEWS
O pp   TERMINAL OPTIONS
R h    RTM/ALERTS
W      MULTIPLEXER

pp = port id
h = IBM-compatible host identifier (default = 1)
```

Figure 2-8. Configure Command Options Menu

#### OPTIONS COMMANDS

The Options commands are:

CD	Authorizes device access to one or more A/A hosts
CE	Configures control unit parameters
CF	Configures the LCP language
CH [h]	Assigns IBM host parameters
CL	Assigns logical units
CM	Configures printer authorization matrix
CN	Defines messages
CO {pp}	Configures terminal options and A/A host parameters
CR [h]	Customizes the RTM/Alerts features
CW	Configures multiplexer port mapping

## CONFIGURE DEVICE AUTHORIZATION MATRIX – PRIVILEGE COMMAND: CD

The Configure Device Authorization command authorizes devices to access one or more A/A hosts.

### ACCESSING THE CD SCREEN

Type CD at the LCP menu and press Enter to display the screen.

```
====> CD
Modify panel and ENTER, or use PF3 to exit, or use PF7/8 to scroll
-----
          ASCII
ASCII Host Ports      Host Names      Authorized Devices
-----
08 09 10 11 12 13      *****
14 15 16 17 18 19
20 21 22 23 24 25
26 27 28 29 30 31
32 33 24 35 36 37
38 39 40 41 42 43
44 45 46 47 48 49
50 51 52 53 54 55
```

Figure 2-9. Configure Device Authorization Screen

### FIELDS

**ASCII Host Ports** – This field lists the port numbers on the Asynchronous Adapter that the A/A hosts are attached to.

**ASCII Host Name** – This field shows the A/A host name assigned with the CO command. See “Configure Terminal Options” for defining A/A host parameters.

**Authorized Devices** – This field contains the port numbers of coax and A/A terminals authorized to access each A/A host. Type ALL to allow all terminals access to the A/A host.

An authorized device may have any A/A host defined as a preferred (default) host. The preferred host is defined with the Configure Terminal Options command.

## LOCAL CONTROL POINT

---

# CONFIGURE CONTROL UNIT ENVIRONMENT – PRIVILEGE COMMAND: CE

---

The Configure Control Unit Environment command modifies the control unit parameters.

### ACCESSING THE CE SCREEN

Type CE at the LCP menu and press Enter to display the screen. Figure 2-10 shows parameters in an SNA environment.

**NOTE:** Deactivate active host links with the HD command before modifying control unit environment parameters.

```
====> CE
Modify panel and ENTER, or use PF3 to exit
-----
00 Invalid EBCDIC codes. 00 = hyphenate, 01 = reject
01 Between bracket printer sharing. 00 = no, 01 = yes

DFT Options:
00 Enable Local Copy Format Controls. 00 = No, 01 = Yes
00 Automatic Form Feed before Local Copy. 00 = No, 01 = Yes
00 Automatic Form Feed after Local Copy. 00 = No, 01 = Yes
00 Reserved.
00 Reserved.
00 Field Intensity Options. 00=03=Underscore, 01=None, 02=Reverse video
00 Update Panel Before Allowing Buffer Change. 00 = No, 01 = Yes
000000 Password. 6 decimal digits
```

Figure 2-10. Configure Control Unit Environment Screen – SNA Environment

**NOTE:** The second parameter, “Between bracket printer sharing,” does not appear in the BSC environment screen.

### FIELDS

**Invalid EBCDIC codes (00 = Hyphenate, 01 = Reject) –**  
00 – The control unit changes undefined code points to hyphens.  
01 – The control unit rejects undefined code points.

**Between bracket printer sharing (00 = No, 01 = Yes) –**  
00 – Printer sharing is prohibited between message brackets.  
01 – (default) Bracket printer sharing is allowed. If the primary printer session is active, the background printer session is rejected. When the primary printer session is finished, the background request is processed.

**DFT options –** If you have a DFT or DSL, configure the options listed below. If you are not configuring a DFT, do not alter the default values. (A DSL is a diskless DFT.)

## LOCAL CONTROL POINT

---

**Enable local copy format controls (00 = No, 01 = Yes) –**

00 – The DFT does not send format controls to a printer that does not have the Save/Restore feature.

01 – The DFT sends format controls to a printer that does not have the Save/Restore feature. The bracket printer sharing parameter must not be enabled.

**Automatic form feed before local copy (00 = No, 01 = Yes) –**

00 – The printer does not generate an automatic form feed before doing a local copy via the DFT data stream.

01 – The printer generates an automatic form feed before doing a local copy via the DFT data stream.

**Automatic form feed after local copy (00 = No, 01 = Yes) –**

00 – The printer does not generate an automatic form feed after doing a local copy via the DFT data stream.

01 – The printer generates an automatic form feed after doing a local copy via the DFT data stream.

**Reserved –** These two fields are reserved for future use. Do not change these values.

**Field intensity options (00 = 03 = Underscore, 01 = None, 02 = Reverse video [3290 only]) –**

00 = 03 – All fields with field intensity are underscored.

01 – Fields with field intensity are not underscored.

02 – Fields with field intensity appear in reverse video.

**Update panel before allowing buffer change (00 = No, 01 = Yes [3290 only]) –**

00 – The DFT suspends updating the screen to process a host transmission.

01 – The DFT updates the screen before processing a host transmission. Memorex Telex recommends you select 01 if the DFT is used as a system monitor or if high data rates are warranted.

**Password – 6 decimal digits (3290 only) –** The password is a six-digit decimal number. A password is required at setup level 3 to confirm configuration changes.

---

## CONFIGURE FOREIGN LANGUAGE SELECTION – PRIVILEGE COMMAND: CF

---

The Configure Foreign Language command configures the LCP language. English and French are the current LCP language options.

### ACCESSING THE CF SCREEN

Type CF at the LCP menu and press Enter to display the LCP Language Options screen.

## LOCAL CONTROL POINT

---

```
====> CF
Enter LCP Language Option, or use PF3 to exit
-----
```

```
LCP Language Options
-----
D   Default = English
E   English
F   French
```

NOTE: The "Default" language is based upon  
the current primary keyboard language.

Figure 2-11. Configure Foreign Language Selection Screen

### MODIFYING THE SCREEN

Select the desired language, then all subsequent LCP screens appear in that language. The selected language is highlighted on the screen.

NOTE: The default language is based on the primary keyboard. The first time LCP is accessed, this default language appears.

### ERROR MESSAGES

Some of the error messages that display are:

“Incompatible Message File” – The LCP language file does not match the version on the diskette. An incorrect system diskette is being used.

“Invalid Language ID” – An invalid language was selected.

“Selected Language Already In Use.”

---

## CONFIGURE HOST – PRIVILEGE COMMAND: CH [h]

---

The Configure Host command configures SNA/SDLC, SNA local, non-SNA local, and BSC IBM host parameters.

### DEACTIVATE HOST(S)

The host(s) must be deactivated before using this command. When the system diskette is first initialized, the host link is deactivated. If a host is active, use the Host Deactivate command. If you attempt to use the CH command when the host is active, a message appears instructing you to deactivate the host.

### ACCESSING THE CH SCREEN

Type CH (and a [1] or [2] if dual IBM hosts are supported) and press Enter. Different CH screens appear depending on the host environment.

### SNA/SDLC HOST PARAMETERS

```
====> CH
Modify panel and ENTER, or use PF3 to exit
-----
STATUS = SNA REMOTE, DEACTIVATED
-- Host processor interface address.
12 XID byte 0.
14 XID byte 1.
01 XID byte 2.
71 XID byte 3.
3D XID byte 4.
26 XID byte 5.
00 Interface Type. 00 = RS232/V.35, 01 = other
00 Facility connect. 00 = nonswitched, 01 = switched.
00 Link configuration. 00 = multipoint, 01 = point-to-point.
00 NRZI. 00 = no, 01 = yes.
00 Duplex facility. 00 = full, 01 = half.
00 Modem rate. 00 = full speed, 01 = half speed.
FE Number of LUs.
_____ Host name. 1-8 Characters.
```

Figure 2-12. Configure Host Screen – SNA/SDLC Environment

### FIELDS

**Host Processor Interface Address** – This is a hexadecimal channel or link address. For SNA/SDLC hosts, it is the poll address. Obtain this value from the system programmer.

**XID Byte 0** – This parameter identifies the ID format and the physical unit type. Twelve (12) indicates an IBM 3174 Control Unit.

**XID Byte 1** – It is set to 14 hex.

**XID Byte 2** – This parameter contains the first two digits of the control unit type. The control unit code is 017 for the IBM 3174-compatible. Type 01 in this field.

**XID Byte 3** – This parameter contains the last digit of the control unit type code (017) and the first digit of the terminal or physical unit ID (PUID). Set the first digit to 7. Set the second digit to the first digit of the terminal ID. Ask the system programmer for the PUID number.

**XID Byte 4 - XID Byte 5** – These two parameters contain the remaining four digits of the PUID number.

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**Interface Type (00 = RS 232/V.35 01 = Other [Other is for X.21 leased line operations.]** – Select the appropriate interface type.

**Facility Connect (00 = Nonswitched, 01 = Switched)** –  
00 – Select if using a nonswitched telephone line. If DSR is in a constant condition, set to 00 if using a dedicated telephone line.  
01 – Select if using a dial-up switched telephone line.

**Link Configuration (00 = Multipoint, 01 = Point-to-Point)** –  
00 – Select if using several modems and control units on the same telephone line.  
01 – Select if using only one modem and control unit on the line.

**NRZI (00 = No, 01 = Yes)** – This parameter determines the digital pulse code used by the control unit. Both the host and the control unit must have the same configuration.  
00 – Select for NRZ (Non-Return to Zero).  
01 – Select for NRZI (Non-Return to Zero Inverted).

**Duplex Facility (00 = Full, 01 = Half)** –  
00 – Set for full-duplex (four-wire) facilities. For full-duplex on a point-to-point line, Request To Send (RTS) is maintained in an active state to eliminate associated RTS-CTS modem delays.  
01 – Set for half-duplex (two-wire) facilities.

**Modem Rate (00 = Full Speed, 01 = Half Speed)** –  
00 – The full-speed modem rate is used with non-IBM-compatible modems and normal IBM-compatible operation.  
01 – Set the half-speed modem rate if required for IBM-compatible modems.

**Number of LUs** – This field contains the maximum number of LUs allowed for the particular control unit model. When configuring for dual IBM hosts, the LUs must be split between the two hosts.

**Host Name (1-8 Characters)** – Type a host name of one to eight characters. This is an optional parameter.

### SNA LOCAL HOST PARAMETERS

#### FIELDS

**Host Processor Interface Address** – This is a hexadecimal channel or link address. For SNA local hosts, it is the control unit subchannel address. Obtain this address from the system programmer.

**Number of LUs** – This field contains the maximum number of LUs allowed for the particular control unit model.

**Burst Size (02-FF)** – This is the number of bytes to be transferred per connection of a byte-multiplexer channel. Valid values are between 002 and 255.

```

====> CH
Modify panel and ENTER, or use PF3 to exit
-----
STATUS = SNA LOCAL, DEACTIVATED
-- Host processor interface address.
FE Number of LUs.
20 Burst size. 02-FF
00 High speed transfer. 00 = no, 01 = TTI, 02 = streaming
00 Command retry. 00 = no, 01 = yes
00 Attention delay. 00-AA
_____ Host name. 1-8 characters.
    
```

Figure 2-13. Configure Host Screen – SNA Local Environment

**High Speed Transfer (00 = No, 01 = TTI, 02 = Streaming)** – This specifies the data transfer protocol on the channel.

00 – This option uses single-lock interlock.

01 – This option uses two-tag lock.

02 – This uses data streaming protocol.

**Command Retry (00 = No, 01 = Yes)** – Use the command retry facility of the host. Control unit and host are configured for command retry.

**Attention Delay (00-0A)** – This parameter increases the probability of including more than one path information unit (PIU) per read channel program. This parameter also reduces the number of unsolicited attentions presented to the channel. Inbound data (PIUs) are queued during the delay period, then one attention is presented at the end of the delay period. The parameter is measured in increments of 100 milliseconds and applies to local control units only.

**Host Name (1-8 Characters)** – Type the host name of one to eight characters. This is an optional parameter.

### NON-SNA LOCAL HOST PARAMETERS

```

====> CH
Modify panel and ENTER, or use PF3 to exit
-----
STATUS = NON-SNA LOCAL, DEACTIVATED
-- Host processor interface address.
10 Number of devices supported. hex 10 or 20.
00 UCW. 00 = non-shared, 01 = shared.
20 Burst size. 02 - FF
00 High speed transfer. 00 = no, 01 = TTI, 02 = streaming
00 Command retry. 00 = no, 01 = yes
_____ Host name. 1-8 ccharacters.
    
```

Figure 2-14. Configure Host Screen – Non-SNA Local Environment

# LOCAL CONTROL POINT

## FIELDS

**Host Processor Interface Address** – This is a hexadecimal channel or link address. Obtain this address from the system programmer.

**Number of Devices Supported (Hex 10 or 20)** – This parameter sets the number of consecutive subchannel addresses assigned to devices attached to the control unit. Select 10 for 16 devices or 20 for 32 devices.

**UCW (00 = Non-Shared, 01 = Shared)** – Unit Control Word (UCW) is a 64-byte location in the host's main memory associated with one or more subchannels. The UCW is the repository for the status and control information necessary for the channel to perform I/O operations to an attached device. UCWs may be shared or unshared by these devices.

**Burst Size (02-FF)** – This is the number of bytes to be transferred per connection of a byte-multiplexer channel. Valid values are between 002 and 255.

**High Speed Transfer (00 = No, 01 = TTL, 02 = Streaming)** – This specifies the data transfer protocol on the channel.

00 – This option uses single-lock interlock.

01 – This option uses two-tag lock.

02 – This uses data streaming protocol.

**Command Retry (00 = No, 01 = Yes)** – Use the command retry facility of the host. The control unit and the host are configured for command retry.

**Host Name (1-8 Characters)** – Type a host name. This is an optional parameter.

## BSC HOST PARAMETERS

```
====> CH
Modify panel and ENTER, or use PF3 to exit
-----
STATUS = BSC, DEACTIVATED
-- Host processor interface address.
20 Number of devices supported. hex 10 or 20.
00 BSC code set. 00 = EBCDIC, 01 = ASCII.
00 Facility connect. 00 = nonswitched, 01 = switched.
00 Link configuration. 00 = multipoint, 01 = point-to-point.
00 Duplex facility. 00 = full, 01 = half.
00 Modem rate. 00 = full speed, 01 = half speed.
_____ Host name. 1-8 characters.
```

Figure 2-15. Configure Host Screen – BSC Environment

### FIELDS

**Host Processor Interface Address** – This is a hexadecimal channel or link address. For BSC operations, this value is the starting poll (BSC) address of the control unit device. Obtain this value from the system programmer. FF hex, the default, is not valid.

**Number of Devices Supported (Hex 10 or 20)** – This parameter sets the number of consecutive subchannel addresses assigned to devices attached to the control unit. Select 10 for 16 devices or 20 for 32 devices.

**BSC Code Set (00 = EBCDIC, 01 = ASCII)** – Select the appropriate type of character code set for the 3270 data stream.

**Facility Connect (00 = Nonswitched, 01 = Switched)** – This parameter defines the type of line used to connect the control unit and the host. Set this parameter to 00 for BSC operation.

**Link Configuration (00 = Multipoint, 01 = Point-to-Point)** –  
00 – Set if using more than one modem and control unit on the same telephone line.  
01 – Set if using only one modem and control unit on the telephone line.

**Duplex Facility (00 = Full 01 = Half)** –  
00 – Set for full-duplex (four-wire) facilities.  
01 – Set for half-duplex (two-wire) facilities.

**Modem Rate (00 = Full Speed, 01 = Half Speed)** –  
00 – The full-speed modem rate is used with non-IBM-compatible modems and normal IBM-compatible operation.  
01 – Set the half-speed modem rate if required for IBM-compatible modems.

**Host Name (1-8 Characters)** – Type a host name of one to eight characters. This is an optional parameter.

---

## CONFIGURE LOGICAL UNITS – PRIVILEGE COMMAND: CL

---

The Configure Logical Units command assigns LU/host addresses to CUTs, A/A terminals in 3270 emulation, or DFTs that are attached to the control unit. Each LU/host address represents one session with an IBM host.



```

====> CL
Modify panel and ENTER, or use PF3 to exit, or use PF7/8 to scroll
-----

```

PORT	HOST ADDRESSES	PORT	HOST ADDRESSES
00	000	01	001
02	002	03	003
04	004	05	005
06	006	07	007
08	008	09	009
10	010	11	011
12	012	13	013
14	014	15	015
16	016	17	017
18	018	19	019
20	020	21	021
22	022	23	023
24	024	25	025
26	026	27	027
28	028	29	029
30	030	31	031

↓

54

↓

55

Figure 2-17. Configure Logical Units Screen – BSC Environment

### DETERMINING LU/HOST ADDRESS ASSIGNMENTS

The number of LUs assigned to each port depends on the type of device attached to that port. Coax terminals and DFTs may be assigned up to five LUs. Printers can be assigned up to two LUs.

You may configure the maximum number of concurrent sessions for each DFT or coax terminal using the CO command. The number of LUs assigned to the port during LU configuration determines the number of concurrent sessions allowed per terminal.

The LUs/host addresses assigned a DFT are internally mapped to different numbers by the control unit. If a DFT is attached to port 0, assignments are internally mapped to numbers 2 through 6. Assignments to port 1 are internally mapped to numbers 7 through 11. Assignments to port 2 are internally mapped to 12 through 16. This incremental internal mapping scheme applies to all remaining ports on the control unit.

Printers may have one or two assigned LUs. If a printer has two LUs, it may have two IBM host sessions.

### ASSIGNING LOGICAL UNITS

Type new LU/host address assignments over the existing values. Assignment is not limited to the default values. Zeros are not required before the LU/host address number. Spaces must be used as delimiters between individual LUs.

## LOCAL CONTROL POINT

---

For MLT support, type the assigned LUs next to the corresponding physical port. For example, type 002 003 004 005 006 next to the corresponding port.

For dual IBM host support, type the LU assignment followed by a “/1” for host 1 and “/2” for host 2, e.g., “002/1 002/2”.

### SAVING THE CONFIGURATION

Changes to the screen are saved temporarily when PF7 or PF8 are pressed to scroll the Logical Units screen. Enter does not need to be pressed prior to pressing PF7 or PF8.

When the configuration is finished, press Enter to remap the port assignments. Then, either one of two things will occur:

- If you made logical unit changes to the port on which you are working, the screen becomes blank and LCP is exited. Press the Alt and Test keys to reenter LCP. Type P and the password to access the privilege-level LCP menu.
- If you made logical unit changes to other ports (not to the port you are working on), an “Accepted” message appears. LCP is not exited.

**NOTE:** If DSLs are attached to the control unit, the DSL microcode is downstream loaded when Enter is pressed.

---

## CONFIGURE PRINTER AUTHORIZATION MATRIX – PRIVILEGE COMMAND: CM

---

The Configure Printer Authorization Matrix command defines printer ports, and class and display assignments.

The matrix may also be modified by using the host-loaded PAM feature. See Chapter 1, “System Configuration.”

### ACCESSING THE CM SCREEN

Type CM at the LCP menu and press Enter to display the screen.

#### FIELDS

**Printer** – This field lists printer port ID numbers. Valid port IDs are 00-55.

**Mode** – Printer mode options are:

Sys (system) – The printer is for host use only.

Shr (shared) – The printer is for host or local use.

Loc (local) – The printer is for local operations only.

Del (delete) – The printer port is redefined as a display port.

```

====> CM
Modify panel and ENTER, or use PF3 to exit, or use PF7/8 to scroll
-----
PRINTER  MODE      CLASS ASSIGNMENTS      DISPLAY ASSIGNMENTS
-----
09       sys       70 71 72 73 74 75 76   00 01 02 03 04 05 06 07 08 09 10
              77 78 79 80 81 82 83   11 12 13 14 15 16 17 18 19 20 21
              84 85                22 23 24 25 26 27 28 29 30 31 32
                                   33 34 35 36 37 38 39
    
```

**Figure 2-18. Configure Printer Authorization Matrix Screen**

All coax control unit ports are set as display terminals, and all A/A ports are defined as A/A host connections in the default configuration. Attached printers are initially configured as Sys (system) printers.

**Class Assignments** – Valid assignments are 70-85 and ALL. ALL assigns all classes to a printer. Use a class number, such as 72, to indicate similar printer types. Class numbers name a particular group. Class assignments are determined by the user.

**Display Assignments** – Valid assignments are 00-55 and ALL. ALL Authorization assigns all display assignments to a printer.

If a large number of classes or displays is being assigned, type ALL in the appropriate field, then delete unwanted port numbers.

If there is not enough space in a field to assign all the required classes or displays, type as many as possible. After a full line is typed, the "Accepted" field displays an extra line for additional assignments.

### ERROR MESSAGES

Some error messages that display are:

"Invalid Printer Class - cc" – The indicated printer class (cc) is not valid.

"Invalid Display ID - dd" – The indicated display ID (dd) is not a decimal number, or is not in the range of supported port IDs.

"Invalid Printer Mode - mmm" – The indicated mode (mmm) is not valid.

---

## CONFIGURE NEWS

---

The Configure News command allows privilege-level LCP users to write a 160-character (two-line) message that appears in the Configure News screen. All terminal users can view the message using the Display News command.

## LOCAL CONTROL POINT

### ACCESSING THE CN SCREEN

Type CN at the LCP menu and press Enter to display the screen.

```
====> CN
Modify panel and ENTER, or use PF3 to exit
-----
This is a sample news message.
```

Figure 2-19. Configure News Screen – Sample Message

## CONFIGURE TERMINAL OPTIONS – PRIVILEGE COMMAND: CO {pp}

The Configure Terminal Options command configures coax and A/A terminal options and A/A host parameters.

### ACCESSING THE CO SCREEN

At the LCP menu, type CO and a specific port number {pp}. Specify port numbers 0 through 31 for coax terminals. Specify 32 through 55 for A/A terminals or hosts. Type ALL to configure all ports with the same options.

### COAX TERMINAL OPTIONS

Figure 2-20 shows the screen used to configure coax terminals for normal operation and A/A terminal emulation.

#### FIELDS

**Keypad Type (00 = Default (C2), 01 = RPQ, 02 = C4) –**

00 – This option selects the default C2 keyboard.

01 – This option selects the C3 keyboard.

02 – This option selects the C4 keyboard.

See Chapter 1, “System Configuration,” for details.

ACS supports the VT52, VT100, and VT220 auxiliary keypad in either C2, C3, or C4 style keypad when operating in A/A emulation. For more information on operating in this mode, refer to the 1374 ACS Operations Manual.

**3270 ASCII Keyboard (00 = No, 01 = Yes) –**

00 – The terminal has an EBCDIC keyboard requiring no special configuration.

01 – The keyboard needs to be defined so the unique keystrokes are mapped correctly.

```

====>CO 00
Modify panel and ENTER to UPDATE, use PF3 to EXIT, or PF7/8 to scroll
-----

00 Keypad type. 00 = default (C2), 01 = RPQ, 02 = C4
00 3270 ASCII keyboard. 00 = no, 01 = yes
00 Numeric lock. 00 = default, 01 = disabled, 02 = enabled
00 PC File Transfer. 00 = no, 01 = yes
00 Oper. Infor. Area mode. 00 = EXTRA 1, 01 = EXTRA 2, 02 = IBM
00 Magnetic Stripe Reading Devices.
    00 = Alphanumeric (Auto Enter for secure data only)
    01 = Alphanumeric (Auto Enter for all data)
    02 = 3277-Compatible Numeric
00 IBM Keyboard. 00 = default, 01-08 = Std, 0A-0Z - AA-DD = Modified
03 Async Emul. 01-09 = Std, 0A-0Z = Custom
00 Async Emul Keyboard. 00 = default, 01-03 = Std, 0A-0Z - AA-DD = Modified
-- Maximum number of concurrent sessions. 01-05
00 Host language. 1 = primary, 2 = secondary
00 Keyboard language. 1 = primary, 2 = secondary
    Preferred host name. 1-8 characters

```

Figure 2-20. Configure Terminal Options Screen – Coax Device

**Numeric Lock (00 = Default, 01 = Disabled, 02 = Enabled) –**

00 – The default depends on the keyboard installation (refer to the terminal manual).

01 – Any restrictions on entering data in numeric or unprotected fields are disabled.

02 – Only numeric data can be entered in numeric or unprotected fields.

**PC File Transfer (00 = No, 01 = Yes) –** If Yes is selected, information can be transferred from the microcomputer to the host. Selecting Yes degrades the data throughput from the host to the terminal; therefore, select Yes only when you have a PC performing file transfers.

**Operator Information Area Mode (00 = EXTRA 1, 01 = EXTRA 2, 02 = IBM) –**

00 – EXTRA 1 is a mode that uses English language messages.

01 – EXTRA 2 is a mode that includes all EXTRA 1 indicators as well as numbers for row/column cursor position.

02 – IBM mode uses the IBM 3270-type symbols.

**Magnetic Stripe Reading Devices (00 = Alphanumeric, 01 = Alphanumeric, 02 = IBM 3277-Compatible Numeric) –** Coax terminals support both magnetic hand scanners and magnetic slot readers.

00 – This automatically enters only alphanumeric secure data.

01 – This automatically enters all alphanumeric data.

02 – This automatically enters IBM 3277-compatible numeric data.

## LOCAL CONTROL POINT

---

**IBM Keyboard (00 = Default, 01-08 = Std, 0A-0Z - AA-DD = Modified) –**

00 – The default option uses the device power up ID.

01-08 – The standard keyboard types are:

- 01 = 3 x 78 typewriter/APL
- 02 = 3 x 78 data entry 1
- 03 = 3 x 78 data entry 2/keypunch
- 04 = 3 x 78 typewriter/text
- 05 = 3178 model C3
- 06 = 3179/3180 typewriter/APL
- 07 = 3179/3180 data entry
- 08 = 3191 A20 enhanced typewriter

0A-0Z through AA - DD – This option selects a keyboard that is modified in SDU. Keyboard types that can be modified are:

- 0A-0J = 122-key keyboard (3179/80)
- 0K-0T = 75/87-key keyboard (3 x 78)
- 0U-DD = 102-key keyboard (3193 enhanced)

**Async Emulation (01-09 = Std, 0A-0Z = Custom) – Coax devices can be configured to emulate an A/A terminal.**

01-09 – The standard options are:

- 01 = DEC VT52
- 02 = DEC VT100
- 03 = DEC VT220 (7-bit)
- 04 = DEC VT220 (8-bit)
- 05 = IBM 3101
- 06-08 = reserved for future use
- 09 = coax printer

0A-0E – Custom emulation is performed via SDU, then selected from this parameter.

**Async emulated keyboard (00 – Default, 01-03 = Std, 0A-0Z – AA-DD = Modified) –**

00 – The default is the keyboard type physically attached to the port.

01-03 – The standard A/A keyboard types are:

- 01 = 87-key keyboard (3 x 78)
- 02 = 122-key keyboard (3179/80)
- 03 = 102-key keyboard (3191 enhanced)

0A-0Z through AA-DD – SDU modified A/A keyboards include:

- 0A-0J = 122-key keyboard (3179/80)
- 0K-0T = 75/87-key keyboard (3 x 78)
- 0U-DD = 102-key keyboard (3191 enhanced)

**Maximum Number of Concurrent Sessions (01-05) – Select the number of maximum concurrent sessions for the terminal. The default value (--) corresponds with the number of LUs assigned to the terminal. The default allows only IBM sessions; no A/A host sessions can be established. The Host Selection menu does not display until this parameter is configured. When this parameter is configured, the first LU assigned the terminal is activated, then you must enter the Host Selection menu and connect the remaining host sessions.**

**Host Language (1 = Primary, 2 = Secondary)** – Two languages can be supported simultaneously on the control unit. Languages are defined in SDU. If no changes are made, the default language, U.S. English, is automatically selected. See the *1374 Offline Utility Operations Manual* for details.

**Keyboard Language (1 = Primary, 2 = Secondary)** – The keyboard languages are defined in SDU.

**Preferred Host Name (1-8 Characters)** – This option allows you to select a default IBM or A/A host. A terminal configured with a preferred host name automatically accesses that host when powered on. Type a one to eight character name. The name is case sensitive. Do not use spaces.

### A/A HOST PARAMETERS

Figure 2-21 shows the screen used to configure A/A host parameters.

```
====> CO 32
Modify panel and ENTER to UPDATE, or use PF3 to exit, or PF7/8 to scroll
-----
0F Async Port type.
   01 = PC, 02-0E = dsp/prt, 0F = Host, 10 = Auto Config.
96 Speed.
   03 = 300, 12 = 1200, 24 = 2400
   48 = 4800, 96 = 9600, 19 = 19200
00 Parity. 00 = Even, 01 = Odd, 02 = None, 03 = Mark, 04 = Space
00 Bits per character. 00 = 7 bits, 01 = 8 bits
01 Number of stop bits. 01 - 02
00 Flow Control. 00 = XON/XOFF, 01 = CTS, 02 = DTR
00 Physical connection type. 00 = Normal, 01 = PTT, 02 = Smart Modem
00 Auto disconnect timeout. 00 - FF minutes
00 Port used for ASCII Host printer session. 00 = No, 01 = Yes
00 Auto-dial. 00 = Disabled, 01 = Enabled
***** ASCII host name, 1-8 characters.
```

Figure 2-21. Configure Terminal Options Screen – A/A Host

### FIELDS

**Async Port Type (01 = PC, 02-0E = Dsp/Prt, 0F = Host, 10 = Auto Config)** – Select 0F to configure an A/A host. The other options pertain to A/A terminals and printers. The number of A/A hosts that can be defined is limited to the number of A/A ports on the particular control unit model.

**Speed** – Select the appropriate baud rate to match the host setting.

**Parity (00 = Even, 01 = Odd, 02 = None, 03 = Mark, 04 = Space)** – Select the desired parity. Mark and space can only be configured for 7-bit data communications. For mark, the parity bit is on. For space, the parity bit is off.

## **LOCAL CONTROL POINT**

---

**Bits Per Character (00 = 7 Bits, 01 = 8 Bits)** – Select the number of data bits for each ASCII character transmitted between the control unit and the A/A host.

**Number of Stop Bits (01-02)** – Select the number of stop bits added to each ASCII character transmitted between the control unit and the A/A host.

**Flow Control (00 = XON/XOFF, 01 = CTS, 02 = DTR)** –  
00 – Select for the XOn/XOff protocol.

01 – The CTS signal is used as a toggle to implement flow control.

02 – Data Terminal Ready (DTR) flow control signals the control unit when a terminal is ready to receive information.

**Physical Connection Type (00 = Normal, 01 = PTT, 02 = Smart Modem)** – Select the connection type. PTT stands for Postal Telegraph and Telephone.

**Auto Disconnect Time-Out (00-FF Minutes)** – Type the number of minutes in hex values, 00 through FF (0 - 255), that an A/A session can remain idle before being disconnected.

**Port Used for ASCII Host Printer Session (00 = No, 01 = Yes)** –  
00 – The port is for a host session with a display.

01 – The port is used for a ASCII host printer session only and appears in the ASCII Host Printer Assignments screen. The host printer parameters are set to active if the A/A port is currently not in session. If the A/A host port is active, it must be deactivated via the Host Selection menu before it can be used as a printer port. The A/A host port does not display in the CD screen until the A/A host printer feature is set to 00.

**Auto-Dial (00 = Disabled, 01 = Enabled)** – A/A host ports with an attached intelligent modem may be used for auto-dial operations.

00 – Dial digits are not transferred to the attached modem.

01 – When enabled, dial digits are transferred to the attached intelligent modem. Dial digits and status appear on the terminal. If the host is reconfigured as an A/A terminal, the port can be used for dial-in operations from a remote terminal.

**ASCII Host Name (1-8 Characters)** – Type a one to eight character name that identifies the A/A host attached to this port. The default ASCII host pool name is \*\*\*\*\*. All ASCII host ports are automatically associated with the default name unless a different ASCII host name is specified for the port. Spaces are not valid. The name is case sensitive. The A/A name appears in the Host Selection and Configure Device Authorization Matrix screens.

## A/A TERMINAL OPTIONS

Figure 2-22 shows the screen used to configure A/A PCs and terminals. To display the A/A terminal options screen, at the A/A host screen, change the port type from the default (0F for host) to a terminal type (02-0E), then press Enter. The complete options screen for A/A terminals appears.

```

====> CO 32
Modify panel and ENTER to UPDATE, or use PF3 to exit, or PF7/8 to scroll
-----
02 Async Port type.
   01 = PC, 02-0E = dsp/prt, 0F = Host, 10 = Auto Config.
96 Speed.
   03 = 300, 12 = 1200, 24 = 2400
   48 = 4800, 96 = 9600, 19 = 19200
   00 = auto
00 Oper. Infor. Area mode. 00 = EXTRA 1, 01 = EXTRA 2, 02 = IBM
00 Parity. 00=Even, 01=Odd, 02=None, 03=Mark, 04=Space, 05 = Auto
00 Bits per character. 00 = 7 bits, 01 = 8 bits
01 Number of stop bits. 01 - 02
00 Flow Control. 00 = XON/XOFF, 01 = CTS, 02 = DTR
00 Physical connection type. 00 = Normal, 01 = PTT
03 Password retry count. 00 - 09.
   Password. 1-4 characters
00 Auto disconnect timeout. 00 - FF minutes
-- Maximum number of concurrent sessions. 01 - 05
00 Host language. 1 = Primary, 2 = Secondary.
00 Keyboard language. 1 = Primary 2 = Secondary
00 Terminal 3270 Emulation Model.
   00 = Model 2, 01 = Model 3, 02 = Model 4, 03 = Model 5
00 Extended Attribute Processing Enabled. 00 = Yes, 01 = No
   Preferred host name. 1-8 Characters

```

Figure 2-22. Configure Terminal Options Screen – A/A Terminal

### FIELDS

**Async Port Type (01 = PC, 02-0E = Dsp/Prt, 0F = Host, 10 = Auto Config) –**

01 – Select for a PC with 3278 emulation.

02-0E – The default A/A device types are:

- 02 = LS ADM 3A (display)
- 03 = DEC VT100 (display)
- 04 = DEC VT220 (display)
- 05 = DEC VT240 (display)
- 06 = IBM 3101 (display)
- 07 = IBM 3161 (display)
- 08 = IBM 3164 (display)
- 09 = TELEVIDEO 912C (display)
- 0A = EPSON FX80 (printer)
- 0B = EPSON FX100 (printer)
- 0C = NEC 3515 (printer)
- 0D = OKIDATA 82A/92A (printer)
- 0E = OKIDATA 83/93 (printer)

## LOCAL CONTROL POINT

---

Use the Offline Utility ADU to either modify or create a new profile.

0F – This pertains to an A/A host port.

10 – The auto configuration parameter applies to A/A terminals and PCs. The auto configuration parameter does not restrict the A/A port to a specific A/A terminal type. A terminal type selection menu displays on the terminal being used and allows you to select the profile for that terminal. This parameter allows a variety of different terminals at remote locations to access this port.

**NOTE:** On IBM 316X terminals, the Auto Configuration menu does not display correctly unless the scrolling feature is enabled. Enable scrolling during terminal setup if the Auto Configuration parameter is selected.

If this port was previously configured as an A/A host port with an assigned device, remove the device assignments before reconfiguring the port as an A/A device port.

**Speed** – Select the appropriate baud rate. The Auto option allows ports to operate at data rates ranging from 300 to 19200 bps. (The 7XR control units do not support 19200 bps.) This parameter can only be configured for 7-bit data communications.

**NOTE:** A/A devices can be configured for different baud rates if the A/A host is configured for flow control.

**Operator Information Area Mode (00 = EXTRA 1, 01 = EXTRA 2, 02 = IBM)** – Select the desired mode. See Chapter 3 for details.

**Parity (00 = Even, 01 = Odd, 02 = None, 03 = Mark, 04 = Space, 05 = Auto)** – Select the desired parity. Mark and space can only be configured for 7-bit data communications. For mark, the parity bit is on. For space, the parity bit is off. Auto automatically determines the parity scheme used by the A/A terminal at connect time; it is used for 7-bit data communications only.

**Bits Per Character (00 = 7 Bits, 01 = 8 Bits)** – Select the number of data bits for each ASCII character transmitted between the control unit and the A/A terminal or printer.

**Flow Control (00 = XON/XOFF, 01 = CTS, 02 = DTR)** –

00 – The XOn/XOff protocol is selected.

01 – The CTS signal is used as a toggle to implement flow control.

02 – Data Terminal Ready (DTR) flow control signals the control unit when a terminal is ready to receive information.

**Number of Stop Bits (01 - 02)** – Select the number of stop bits added to each ASCII character transmitted between the control unit and the A/A terminal or printer.

**Physical Connection Type (00 = Normal, 01 = PTT)** – Select connection type. PTT stands for Postal Telegraph and Telephone.

## LOCAL CONTROL POINT

---

**Password Retry Count (00 - 09)** – This value determines the number of times you can type the control unit password. Exceeding this number causes the control unit to drop the modem signal.

**Password** – Type the one to four character password to access the control unit. The “\_” character is not a valid password character.

**Auto Disconnect Time-Out (00–FF Minutes)** – Type the number of minutes in hex values, 00 through FF (0 - 255), that an A/A session can remain idle before it is disconnected.

**Maximum Number of Concurrent Sessions (01 - 05)** – An A/A terminal may have up to five concurrent sessions. The default (--) corresponds with the number of LUs assigned to the terminal. The default allows only IBM host sessions; no A/A sessions can be established. The Host Selection menu does not display until this parameter is configured. When this parameter is configured, the first LU assigned the terminal is activated, then you must enter the Host Selection menu and connect the remaining host sessions.

**Host Language (1 = Primary, 2 = Secondary)** – Two languages can be supported simultaneously on the control unit. Languages are defined in SDU (Offline Utilities).

**Keyboard Language (1 = Primary, 2 = Secondary)** – The keyboard languages are defined in SDU (Offline Utilities).

**Terminal 3270 Emulation Model (00 = Model 2, 01 = Model 3, 02 = Model 4, 03 = Model 5)** – A/A terminals may be configured as one of the following coax terminals:

- 00 – 1920 character (24 x 80)
- 01 – 2560 character (32 x 80)
- 02 – 3440 character (43 x 80)
- 03 – 3564 character (27 x 132)

This feature is limited to A/A terminals with screen sizes comparable to those listed above.

**Extended Attribute Processing Enabled (00 = Yes, 01 = No)** – If Yes is selected, terminals that have extended attributes are allowed to use the feature for IBM host sessions.

**Preferred Host Name (1-8 Characters)** – This option allows you to select a default IBM or A/A host. A terminal configured with a preferred host name automatically accesses that host when powered on. Type a one to eight character name. The name is case-sensitive. Do not use spaces.

---

### A/A PRINTER PARAMETERS

Figure 2-23 shows the A/A printer parameters screen. To display the A/A printer options screen, at the A/A host screen, change the port type from the default (0F for host) to a printer type, then press Enter. The printer options screen appears.

## LOCAL CONTROL POINT

```
====> CO 34
Modify panel and ENTER to UPDATE, or use PF3 to exit, or PF7/8 to scroll
-----
0D Async Port type.
   01 = PC, 02-0E = dsp/prt, 0F = Host, 10 = Auto Config.
96 Speed.
   03 = 300, 12 = 1200, 24 = 2400
   48 = 4800, 96 = 9600, 19 = 19200
00 Compress printer. 00 = default, 01 = Yes, 02 = No
00 Parity. 00=Even, 01=Odd, 02=None, 03=Mark, 04=Space
00 Bits per character. 00 = 7 bits, 01 = 8 bits
00 Flow control. 00 = XON/XOFF, 01 = CTS, 02 = DTR
01 Number of stop bits. 01 - 02
00 Physical connection type. 00 = Normal, 01 = PTT
```

Figure 2-23. Configure Terminal Options Screen – A/A Printer

### FIELDS

**Async Port Type (01 = PC, 02-0E = Dsp/Prt, 0F = Host, 10 = Auto Config) –**

01 – Select for a PC with 3278 emulation.

02-0E – The default A/A device types are:

02 = LS ADM 3A (display)

03 = DEC VT100 (display)

04 = DEC VT220 (display)

05 = DEC VT240 (display)

06 = IBM 3101 (display)

07 = IBM 3161 (display)

08 = IBM 3164 (display)

09 = TELEVIDEO 912C (display)

0A = EPSON FX80 (printer)

0B = EPSON FX100 (printer)

0C = NEC 3515 (printer)

0D = OKIDATA 82A/92A (printer)

0E = OKIDATA 83/93 (printer)

Use the Offline Utility ADU to either modify or create a new profile.

0F – This pertains to an A/A host port.

10 – The auto configuration parameter applies to A/A terminals and PCs.

**Speed –** Select the appropriate baud rate to match the host setting.

**Compress Printer (00 = Default, 01 = Yes, 02 = No) –**

00 – The default setting is selected.

01 – Print is compressed to approximately 17 characters per inch.

02 – Print is compressed to 10 characters per inch.

**Parity (00 = Even, 01 = Odd, 02 = None, 03 = Mark, 04 = Space) –**  
Select the desired parity.

**Bits Per Character (00 = 7 Bits, 01 = 8 Bits) –** Select the number of data bits.

## LOCAL CONTROL POINT

---

**Flow Control (00 = XON/XOFF, 01 = CTS, 02 = DTR) –**

00 – Select for the XOn/XOff protocol.

01 – The CTS signal is used as a toggle to implement flow control.

02 – DTR flow control signals the control unit when a terminal is ready to receive information.

**Number of Stop Bits (01 - 02) –** Select the number of stop bits added to each ASCII character transmitted between the control unit and the printer.

**Physical Connection Type (00 = Normal, 01 = PTT) –** Select appropriate connection type. PTT stands for Postal Telegraph and Telephone.

### SAVING THE CONFIGURATION

You must press Enter to save any changes made to the screen before pressing PF7 or PF8 to scroll the screen. If Enter is not pressed, all changes are lost.

### ERROR MESSAGES

Some of the error messages that display are:

“Device Not Authorized For This Pool” – Use the CD command to authorize A/A host access.

“Invalid Parameter”

See Appendix C for additional error messages.

---

## CONFIGURE RTM/ALERTS – PRIVILEGE COMMAND: CR [h]

---

This command customizes the Response Time Monitor (RTM) and Alerts features. The RTM records the transaction times between terminals and the host. Alerts are messages either generated by the operator or automatically by the control unit, then sent to the host. The RTM/Alert features provide information for problem determination and system management.

### ACCESSING THE CR SCREEN

Type CR (and a [1] or [2] if dual IBM hosts are supported) at the LCP menu and press Enter to display the CR screen. The default settings are shown below.

### FIELDS

**RTM Enabled (00 = No, 01 = Yes) –** If Yes is specified, transaction times are measured and RTM logs are updated.

## LOCAL CONTROL POINT

```
==> CR
Modify panel and ENTER, or use PF3 to exit
-----
00 RTM ENABLED. 00 = NO, 01 = YES
00 RTM HOST INTERFACE. 00 = NO, 01 = YES
00 UNSOLICITED RTM DATA ON SESSION END. 00 = NO, 01 = YES
00 UNSOLICITED RTM DATA ON COUNTER OVERFLOW. 00 = NO, 01 = YES
00 ALERTS. 00 = NO, 01 = YES
00 RTM ALERTS ENABLED. 00 = NO, 01 = YES
00 OPERATOR GENERATED ALERTS. 00 = NO, 01 = YES, 02 = PRIVILEGED
00 RTM DEFINITION. 00 = 1ST CHAR, 01 = KEYBOARD UNLOCK, 02 = CD/EB
                   03 = LAST CHAR
00 LTTI DISPLAY AUTHORIZATION. 00 = NO, 01 = YES

RTM BOUNDARIES:
00:01.0 Boundary #1
00:02.0 Boundary #2
00:05.0 Boundary #3
00:10.0 Boundary #4

00000 SERIAL NUMBER
```

Figure 2-24. Configure RTM/Alerts Screen

**RTM Host Interface (00 = No, 01 = Yes\*)** – When Yes is specified, the host can modify RTM parameters by device or globally, reset RTM logs, and retrieve RTM data from the control unit for analysis.

**Unsolicited RTM Data on Session End (00 = No, 01 = Yes\*)** – This parameter is valid only if the RTM host interface parameter is enabled. If Yes is specified, RTM data is sent automatically to the host and the RTM log is reset when an unbind is received.

**Unsolicited RTM Data on Counter Overflow (00 = No, 01 = Yes\*)** – This parameter is valid only if the RTM host interface parameter is activated. If Yes is specified, RTM data is sent automatically to the host and the RTM log is reset when a counter overflows.

**Alerts (00 = No, 01 = Yes\*)** – This parameter must be enabled before setting the RTM Alerts and Operator generated Alerts parameters. If Yes is specified, Alert messages are generated whenever an error is reported in the Operator Information Area.

**RTM Alerts Enabled (00 = No, 01 = Yes\*)** – When enabled, an Alert message is generated when an RTM counter overflows for a device customized to send an Alert under this condition. The Alerts parameter must be enabled.

**Operator Generated Alerts (00 = No, 01 = Yes, 02 = Privileged\*)** – The Alerts parameter must be enabled.

00 – Alert messages are not generated.

01 – Alert messages are generated from any terminal.

02 – Alert messages are generated only from privilege mode terminal.

\*These parameters are valid only on SNA systems with NetView.

## LOCAL CONTROL POINT

---

**RTM Definition (00 = 1st Char, 01 = Keyboard Unlock, 02 = CD/EB, 03 = Last Char)** – This option indicates the end-of-transaction parameter.

00 – The first character from the host is written to the terminal.

01 – The keyboard is unlocked.

02 – This option selects change direction or end bracket from SNA hosts.

03 – This option accurately measures the total elapsed time between activation of an attention interrupt (AID) key to receipt of the last character of the message prior to pressing the next AID key. The last character can be selected by LCP or in an SNA environment by an IBM host. Entries are made in the appropriate RTM counter.

**LTTI (Last Transaction Time Indicator) Display Authorization (00 = No, 01 = Yes, 02 = Privileged)** – When enabled, the LTTI displays in the Operator Information Area.

00 – LTTI does not appear.

01 – LTTI appears on all terminals upon request.

02 – LTTI appears on privileged mode terminals upon request.

**RTM Boundaries** – These boundaries define the RTM counter limits in minutes, seconds, and tenths of seconds (mm:ss.t). The boundaries must be defined in ascending order. The maximum value is 27:18.3; however, this value is usually not used as a boundary value. Counter 5 is the overflow counter for any value over the indicated boundary. Default values are shown in Figure 2-24.

**Serial Number** – Type a five-digit hexadecimal serial number for system ID. This number is included in Alert messages sent to the host.

---

## CONFIGURE MULTIPLEXER – PRIVILEGE COMMAND: CW

---

The Configure Multiplexer command assigns logical ports to physical ports. (The 7XR control units do not support multiplexing.)

1374 Control Units support a minimum of 16 to a maximum of 32 logical ports depending on the control unit model. Each port can support either a directly attached device or from two to eight multiplexed devices. See the *1374 Product Family Guide* for more details.

---

### ACCESSING THE CW SCREEN

---

Type CW at the LCP menu, then press Enter. Figure 2-25 shows the default values.

---

#### FIELDS

---

**Physical Port** – This field contains the physical port numbers that correspond to the connectors on the control unit. They always appear sequentially.

## LOCAL CONTROL POINT

```
====> CW
Modify panel and ENTER, or use PF3 to exit
-----
```

Physical Port	Logical Port(s)	Physical Port	Logical Port(s)
00	00 01 02 03 04 05 06 07	16	16 17 18 19 20 21 22 23
01	01	17	17
02	02	18	18
03	03	19	19
04	04	20	20
05	05	21	21
06	06	22	22
07	07	23	23
08	08 09 10 11 12 13 14 15	24	24 25 26 27 28 29 30 31
09	09	25	25
10	10	26	26
11	11	27	27
12	12	28	28
13	13	29	29
14	14	30	30
15	15	31	31

```
-----
```

Figure 2-25. Configure Multiplexer Screen – Default Configuration for the 0XR

**Logical Port(s)** – This field lists all the logical ports associated with the corresponding physical port. A minimum of two to a maximum of eight logical ports can be assigned to a physical port when using a multiplexer. A multiplexer cannot be attached to a physical port that has only one logical port assignment. If fewer than eight devices are assigned, the multiplexer uses the lowest available assignments.

The CW screen is intended to represent the actual physical cabling configuration (the mapping of physical to logical ports).

### SAMPLE CONFIGURATIONS

Figures 2-26 and 2-27 show samples of two possible ways that logical ports can be configured.

### SAVING THE CONFIGURATION

When finished with the configuration, press Enter to remap port assignments. If no errors are detected, the screen becomes blank and LCP is exited.

**NOTE:** If DSLs are attached to the control unit, the operational microcode is downstream loaded when Enter is pressed.

## LOCAL CONTROL POINT

```

====> CW
Modify panel and ENTER, or use PF3 to exit
-----
Physical      Logical Port(s)      Physical      Logical Port(s)
Port          Logical Port(s)      Port          Logical Port(s)
-----
00            00 01 02 03 04 05 06 07      16
01            08 09 10 11 12 13 14 15      17
02            16 17 18 19 20 21 22 23      18
03            24 25 26 27 28 29 30 31      19
04            20
05            21
06            22
07            23
08            24
09            25
10            26
11            27
12            28
13            29
14            30
15            31
  
```

Figure 2-26. Configure Multiplexer Screen – Sample of Ports 0 Through 3

```

====> CW
Modify panel and ENTER, or use PF3 to exit
-----
Physical      Logical Port(s)      Physical      Logical Port(s)
Port          Logical Port(s)      Port          Logical Port(s)
-----
00            00                    16
01            01                    17
02            02                    18
03            03                    19
04            04                    20
05            05 06 07             21
06            08 09 10 11 12 13 14 15      22
07            16 17 18 19 20 21 22 23      23
08            24 25 26 27 28 29 30 31      24
09            25
10            26
11            27
12            28
13            29
14            30
15            31
  
```

Figure 2-27. Configure Multiplexer Screen – Sample of Ports 5 Through 8

## LOCAL CONTROL POINT

---

### ERROR MESSAGES

Some of the error messages that display on the screen are:

“Duplicate Value” – A duplicate logical port is assigned twice as the first logical port.

“Invalid Parameter” – The typed parameter is invalid. Retype the parameter.

“Too Many Logical Ports” – The number of logical ports exceeds the maximum supported logical ports for the control unit model.

See Appendix C for additional error messages.

---

## DISPLAY – BASIC/PRIVILEGE COMMAND: D

---

The Display command displays information screens.

### ACCESSING THE COMMAND OPTIONS MENU

Type D at the LCP menu, then press Enter to display the Options menu.

```
====> D
Enter next option
-----
LCP command options
-----
A          PRINTER ASSIGNMENTS
C          PRINTER CLASSES
D          DEVICE AUTHORIZATION MATRIX
E          CONTROL UNIT ENVIRONMENT
H h       HOST
L          LOGICAL UNITS
M          PRINTER AUTHORIZATION MATRIX
N          NEWS
O pp      TERMINAL OPTIONS
P          PORTS
R h       RTM/ALERTS
T pp r    TERMINAL
W          MULTIPLEXER

pp = port id
r = Reset (include to reset terminal statistics)
h = IBM-compatible host identifier (default = 1)
```

Figure 2-28. Display Command Options Menu

## OPTIONS COMMANDS

Options commands are:

DA	Displays printer assignments
DC	Displays printer class assignments
DD	Displays devices authorized to access one or more A/A hosts
DE	Displays control unit parameters
DH [h]	Displays IBM host parameters
DL	Displays logical unit assignments
DM	Displays printer authorization matrix
DN	Displays messages
DO {pp}	Displays terminal options and A/A host parameters
DP	Displays current port assignments
DR [h]	Displays RTM/Alerts configuration
DT {pp} [r][s]	Displays terminal statistics
DW	Displays multiplexer port mapping

## DISPLAY PRINTER ASSIGNMENTS – BASIC/PRIVILEGE COMMAND: DA

This command lists the display ports and associated printer assignments.

### ACCESSING THE DA SCREEN

Type DA at the LCP menu and press Enter.

```
====> DA
Enter new command option, or use PF3 to exit, or use PF7/8 to scroll
-----

DISPLAY          PRINTER ASSIGNED
-----
00              03
04              02 03
05              02 03
06              02 03
07              03
08              03
09              03
10              03
11              03
12              03
13              03
14              03
15              03
```

Figure 2-29. Display Printer Assignments Screen

## LOCAL CONTROL POINT

### DISPLAY PRINTER CLASSES – BASIC/PRIVILEGE COMMAND: DC

The Display Printer Classes command lists printer classes and associated printer assignments.

#### ACCESSING THE DC SCREEN

Type DC at the LCP menu and press Enter.

```
====> DC
Enter new command option, or use PF3 to exit, or use PF7/8 to scroll
-----
```

<u>CLASS</u>	<u>PRINTER ASSIGNED</u>
70	02 03
71	02 03
72	02 03
73	02 03
74	03
75	02 03
76	03
77	03
78	03
79	03
80	03
81	03
82	03
83	03
84	03
85	03

Figure 2-30. Display Printer Classes Screen

### DISPLAY DEVICE AUTHORIZATION MATRIX – BASIC/PRIVILEGE COMMAND: DD

The Display Device Authorization Matrix command lists the devices authorized to access A/A hosts.

#### ACCESSING THE DD SCREEN

Type DD at the LCP menu and press Enter to display the screen.

```

====> DD
Enter new command option, or use PF3 to exit, or use PF7/8 to scroll
-----
ASCII
ASCII Host Ports      Host Names      Authorized Devices
-----
32      NEWS          14
33      ASCII1         01
34      ASCII2         00 01 02
35      ASCII3         10 11 12
36      LEDGER         14
    
```

Figure 2-31. Display Device Authorization Matrix Screen

## DISPLAY CONTROL UNIT ENVIRONMENT – BASIC/PRIVILEGE COMMAND: DE

This command displays the control unit environment.

### ACCESSING THE DE SCREEN

Type DE at the LCP menu, then press Enter.

```

====> DE
Enter new command option, or use PF3 to exit
-----
00  Invalid EBCDIC codes. 00 = Hyphenate, 01 = Reject
01  Between bracket printer sharing. 00 = No, 01 = Yes

DFT Options:
00  Enable Local Copy Format Controls. 00 = No, 01 = Yes
00  Automatic Form Feed before Local Copy. 00 = No, 01 = Yes
00  Automatic Form Feed after Local Copy. 00 = No, 01 = Yes
00  Reserved.
00  Reserved.
00  Field Intensity Options. 00=Underscore, 01=None, 02=Reverse video
00  Update Panel Before Allowing Buffer Change. 00 = No, 01 = Yes
000000 Password. 6 decimal digits
    
```

Figure 2-32. Display Control Unit Environment Screen – SNA Environment

## DISPLAY HOST – BASIC/PRIVILEGE COMMAND: DH [h]

The Display Host command lists the IBM host parameters. The information varies according to the system environment (SNA/SDLC, SNA local, non-SNA local, or BSC).

## LOCAL CONTROL POINT

### ACCESSING THE DH SCREEN

Type DH (and a [1] or [2] if dual IBM hosts are supported) at the LCP menu, then press Enter. Figure 2-33 shows the host parameters in an SNA/SDLC environment.

Some host parameters display as hexadecimal values accompanied by descriptive comments.

```
====> DH
Enter new command option, or use PF3 to exit
-----
STATUS = SNA REMOTE, ACTIVATED
80 Host processor interface address.
12 XID byte 0.
14 XID byte 1.
01 XID byte 2.
71 XID byte 3.
3D XID byte 4.
26 XID byte 5.
00 Interface Type. 00 = RS232/V.35, 01 = other.
00 Facility connect. 00 = nonswitched, 01 = switched.
00 Link configuration. 00 = multipoint, 01 = point-to-point.
00 NRZI. 00 = no, 01 = yes.
00 Duplex facility. 00 = full, 01 = half.
00 Modem rate. 00 = full speed, 01 = half speed.
80 Number of LUs.
IBM1 Host name. 1-8 Characters.
```

Figure 2-33. Display Host Screen – SNA/SDLC Environment

## DISPLAY LOGICAL UNITS – BASIC/PRIVILEGE COMMAND: DL

The Display Logical Units command displays LU and host address assignments.

### ACCESSING THE DL SCREEN

Type DL at the LCP menu and press Enter.



## LOCAL CONTROL POINT

### DISPLAY NEWS – BASIC/PRIVILEGE COMMAND: DN

The Display News command displays messages created with the Configure News (CN) command.

#### ACCESSING THE DN SCREEN

Type DN at the LCP menu and press Enter.

```
====> DN
Enter new command option, or use PF3 to exit
-----
This is a sample news message.
```

Figure 2-36. Display News Screen – Sample Message

### DISPLAY TERMINAL OPTIONS – BASIC/PRIVILEGE COMMAND: DO {pp}

This command displays coax and A/A terminal options, and A/A host parameters.

#### ACCESSING THE DO SCREEN

Type DO and a specific port number {pp} at the LCP menu and press Enter. The options configured for that port display on the screen.

```
====> DO 11
Enter new command option, or use PF3 to exit, or use PF7/8 to scroll
-----
00 Keypad type. 00 = default (C2), 01 = RPQ, C2 = C4
01 3270 ASCII keyboard. 00 = no, 01 = yes
02 Numeric lock. 00 = default, 01 = disabled, 02 = enabled
00 PC File Transfer. 00 = no, 01 = yes
02 Oper. Infor. Area mode. 00 = EXTRA 1, 01 = EXTRA 2, 02 = IBM
00 Magnetic Strip Reading Devices.
   00 = Alphameric (Auto Enter for secure data only)
   01 = Alphameric (Auto Enter for all data)
   02 = 3277-Compatible Numeric
00 IBM Keyboard. 00 = Default, 01-08 = Std, 0A-0Z - AA-DD = Modified
03 Async Emul. 01-09 = Std, 0A-0Z = Custom
00 Async Emul Keyboard. 00 = Default, 01-03 = Std, 0A-0Z - AA-DD = Modified
04 Maximum number of concurrent sessions. 01-05
01 Host language. 1=Primary, 2=Secondary
01 Keyboard language. 1=Primary, 2=Secondary
IBMI Preferred host name. 1-8 Characters
```

Figure 2-37. Display Terminal Options Screen – Coax Terminal

**DISPLAY PORTS – BASIC/PRIVILEGE COMMAND: DP**

This command lists all ports and relevant information.

**ACCESSING THE DP SCREEN**

Type DP at the LCP menu and press Enter.

```

----> DP
Enter new command option, or use PF3 to exit, or use PF7/8 to scroll
-----

```

PORT	TYPE	AVL	SIZE	KEYBOARD	NUM LOCK	LT REN	MHS MSR	COLOR	PS SET	APL TXT	SCS
00	dsp	Y	2560	config							
01	dsp+	N	1920	typewriter	Y						
02	dft	Y	4096								
03											
04	dsp	N	1920	typewriter	Y	Y		Y			
05	dsp	Y	1920	typewriter	Y	Y		Y			
06	dsp	Y	2560	typewriter	Y	Y	Y				
07											
08											
09											
10											
11	dsp*	N	2560	typewriter	Y						
12											
13											
14											
15											
16											

Figure 2-38. Display Ports Screen

**FIELDS**

**Port** – This is the 1374 device port number.

**Type** – This field contains one of the following terminal types:

- Dsp – coax display
- Dsp+ – display with PC file transfer
- Dsp\* – A/A device
- Dft – Distributed Function Terminal
- Prt – printer

**AVL** – This field indicates the status of the device.

(blank) – device was not attached since last control unit IML or power on.

Y – device is available.

N – device is not currently attached or powered on.

? – an error condition exists.

**Size** – This field shows the terminal buffer size (rows x columns).

**Keyboard** – Shows keyboard types such as typewriter or APL.

## LOCAL CONTROL POINT

---

Num Lock – Y for Yes indicates that numeric lock is available.

Lt Pen – Y for Yes indicates that the light pen is available.

Mhs/Msr – Y indicates that the magnetic hand scanners or magnetic stripe reader is attached.

Color – Y indicates that the color option is available.

PS Sets – Options are (blank), 2, 4, or 6.

APL/Txt – Y indicates that APL/text is available.

SCS – SNA Character String option is for printers.

---

## DISPLAY RTM/ALERTS – BASIC/PRIVILEGE COMMAND: DR [h]

---

This command displays the current RTM/Alerts configuration.

### ACCESSING THE DR SCREEN

Type DR (and a [1] or [2] if dual IBM hosts are supported) at the LCP menu and press Enter.

```
====> DR
Enter new command option, or use PF3 to exit
-----
*00 RTM ENABLED. 00 = NO, 01 = YES
01 RTM HOST INTERFACE. 00 = NO, 01 = YES
*00 UNSOLICITED RTM DATA ON SESSION END. 00 = NO, 01 = YES
00 UNSOLICITED RTM DATA ON COUNTER OVERFLOW. 00 = NO, 01 = YES
00 ALERTS. 00 = NO, 01 = YES
*00 RTM ALERTS ENABLED. 00 = NO, 01 = YES
00 OPERATOR GENERATED ALERTS. 00 = NO, 01 = YES, 02 = PRIVILEGED
*00 RTM DEFINITION. 00 = 1ST CHAR, 01 = KEYBOARD UNLOCK, 02 = CD/EB
03 = LAST CHARACTER
00 LTTI DISPLAY AUTHORIZATION. 00 = NO, 01 = YES

RTM BOUNDARIES:
*00:01.0 Boundary #1
00:02.0 Boundary #2
00:05.0 Boundary #3
00:10.0 Boundary #4

00000 SERIAL NUMBER
```

Figure 2-39. Display RTM/Alerts Screen

An asterisk (\*) on the screen indicates fields changed by the host.

---

### DISPLAY TERMINAL – BASIC COMMAND: DT [r] [s] PRIVILEGE COMMAND: DT [pp] [r] [s]

---

The Display Terminal command displays configuration information, status, and statistics for attached terminals.

#### ACCESSING THE DT SCREEN

The DT command has two levels: Basic and Privilege.

- **Basic-level:** Type DT at the basic-level LCP menu to display terminal information about the terminal you are using.
- **Privilege-level:** Type DT at the privilege-level LCP menu to display terminal information about the terminal you are using; or, type DT and a specific port number [pp] to display information about a specific terminal. If a port number does not have an attached device when the control unit is initialized, the message “Device Not Attached to This Port” appears.

The [r] variable causes the statistics to be reset after the current values are displayed. These statistics also are reset when the control unit is IMLed or powered off/on.

**NOTE:** If the RTM feature is not configured for the RTM host interface parameter, the RTM log data for the device will also be reset. If the RTM feature is not configured for the RTM host interface, the RTM data is only reset by the host.

The [s] variable specifies a host session identifier. This variable is used for CUTs and DFTs configured for multiple host sessions.

#### FIELDS

The top row of information is identical to the Display Ports screen. In addition, the DT screen contains:

**Owner** – This field shows the current terminal ownership (SSCP, APPL, or LCP). See Chapter 3, “Terminal Operations,” for details.

**APPL** – The LU type of active session displays.

**SSCP** – Y for Yes indicates that the session is active.

**Test** – Y for Yes indicates that Test mode is active.

**Ready** – Y for Yes indicates that the terminal is ready.

**Prt Assign** – This field contains a printer port or class number.

**RTM EN** – Y for Yes indicates that RTM is enabled.

## LOCAL CONTROL POINT

```

====> DT 03 R S1
Enter new command, or use PF3 to exit, or PF7/8 to display next port
-----

```

PORT	TYPE	AVL	SIZE	KEYBOARD	NUM	LT	MSH	PS	APL	SCS
03	dsp	Y	1920	typewriter	Y	Y				

OWNER	APPL	SSCP	TEST	READY	PRT	ASSIGN	RTM	EN	RTM	DEF	LU	ASSIGNS
LU	2	Y		Y				Y	*0		05	45

	APPL	SSCP	LCP
MSGs TO:	46	5	1
CHRS TO:	1627	61	5
MSGs FM:	120	5	1
CHRS FM:	189022	109	1042

	2XX	3XX	4XX	5XX	CNT1	CNT2	CNT3	CNT4	CNT5	CNT6
ERR COUNT:	0	0	6	1	0	2	0	0	0	0
ERR LAST:			432	505						

KEYS IN:	SESSIONS:	AVG RT:
464	1	1.2

RTM:	CTR1	CTR2	CTR3	CTR4	OVFL	BNDRY1	BNDRY2	BNDRY3	BNDRY4
	2	38	4	1	1	*1.0	2.0	5.0	10.0

Figure 2-40. Display Terminal Screen

**RTM DEF** – This field contains the type of end-of-translation indicator.

**LU Assigns** – LU assignments appear in this field.

**Msgs/Chrs** – Transaction message and character counts are itemized for APPL, SSCP, and LCP sessions.

**Err Count** – The number of errors for each code or counter type appears. Error fields are:

2xx – machine check terminal error

3xx – machine check link error

4xx – program check

5xx – communications check

CNT1 – device time-outs

CNT2 – device parity errors

CNT3 – power off/on at terminal

CNT4 – device buffer parity checks

CNT5 – terminal basic errors

CNT6 – terminal feature errors

**Err Last** – This field displays the last error.

**Keys In** – The number of keyboard characters entered appears.

**Sessions** – The total number of host sessions for this LU appears.

**Avg RT** – The average response time appears as nn.n sec.

**RTM** – This is the Response Time Monitor measurement. The RTM log appears only if RTM is enabled.

**CTR1-OVFL** – This corresponds to settings.

**BNDRY1-BNDRY4** – This is used for RTM data.

### ERROR MESSAGES

Some of the following error messages appear when the privilege-level DT command is issued:

“Device Not Attached to This Port - xx” – The specified port ID is not attached to a powered on terminal.

“Insufficient Memory” – The control unit does not have enough memory to support the features of an additional device. This error occurs when too many devices with extended features are attached to the control unit.

“Invalid Parameter” – The specified session is not in the valid range for the device type.

“Invalid Port ID” – The specified port ID is not a valid decimal number or is not in the range of available port IDs.

“Session Not Active” – The specified session has not been activated.

“Session Not Configured” – The specified session is not configured for the port.

“User Is Not Authorized to Issue This Command” – A DT command with a specific port number was issued in basic-level LCP.

For additional error messages, see Appendix C.

---

## DISPLAY MULTIPLEXER – BASIC/PRIVILEGE COMMAND: DW

---

The Display Multiplexer command displays a listing of physical ports and their corresponding logical ports.

### ACCESSING THE DW SCREEN

Type DW at the LCP menu and press Enter.

## LOCAL CONTROL POINT

---

```
====> DW
Modify panel and ENTER, or use PF3 to exit
-----
```

Physical Port	Logical Port (s)	Physical Port	Logical Port (s)
00	00 01 02 03 04 05 06 07	16	
01	08 09 10 11 12 13 14 15	17	
02	16 17 18 19 20 21 22 23	18	
03	24 25 26 27 28 29 30 31	19	
04		20	
05		21	
06		22	
07		23	
08		24	
09		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	

Figure 2-41. Display Multiplexer Screen

---

## ECHO - BASIC/PRIVILEGE COMMAND: E

---

The Echo command checks the keyboard and screen for correct character output.

### INITIATING THE ECHO CHECK

At the LCP menu, type E, (space), and any desired characters (up to 50). Press Enter, then the display field fills with the repeated character string. If a character string is not typed after the E (space), spaces fill the display field. If a space is not entered after the E in the command field, the message "Format Error" appears. Figure 2-42 shows a display field resulting from "E (space) ABCDEF" being typed in the command field.



## LOCAL CONTROL POINT

### HOST ACTIVATE IBM-COMPATIBLE HOST – PRIVILEGE COMMAND: HA [h]

This command activates the IBM host link after configuration. The host link is automatically activated during control unit IML or power on if a host address is configured.

#### ACTIVATING THE HOST

At the LCP menu, type HA (and a [1] or [2] if dual IBM hosts are supported), then press Enter. An "OK" message appears in the response field if the operation is successful.

```
====> HA
OK
-----
LCP command options
-----
A h ACTIVATE IBM-COMPATIBLE HOST
D h DEACTIVATE IBM-COMPATIBLE HOST

h = IBM-compatible host identifier (default = 1)
```

Figure 2-44. Host Activate Screen

#### ERROR MESSAGES

Some of the following messages appear when the operation is unsuccessful:

- "Host Already Activated"
- "Host Link Request Active"
- "Invalid Host ID"
- "No Host Address Configured"

For additional error messages, see Appendix C.

---

## HOST DEACTIVATE IBM-COMPATIBLE HOST – PRIVILEGE COMMAND: HD [h]

---

This command deactivates the IBM host link. Host deactivation is required prior to using the Configure Host, Configure Logical Units, Configure Control Unit Environment, Read Configuration, and Write Configuration commands. Online operations are interrupted because host deactivation cancels all host sessions.

### DEACTIVATING THE HOST

Type HD (and a [1] or [2] if dual IBM hosts are supported), then press Enter. An “OK” message appears in the response field if the operation is successful (see Figure 2-45).

```
====> HD
OK
-----
LCP command options
-----
A h ACTIVATE IBM-COMPATIBLE HOST
D h DEACTIVATE IBM-COMPATIBLE HOST

h = IBM-compatible host identifier (default = 1)
```

Figure 2-45. Host Deactivate Screen

---

## ASCII HOST PRINTER ASSIGNMENTS – PRIVILEGE COMMAND: Q

---

This command assigns A/A or coax printers to A/A hosts.

When an A/A host port is configured as a printer port in Configure Options, the Q command authorizes each printer access to the A/A host.

A coax printer can have one or two IBM host sessions or one A/A host session, but not both simultaneously. Coax printers connected to an A/A host operate as an LU1 printer.

### ACCESSING THE Q SCREEN

Type Q at the LCP menu, then press Enter.

## LOCAL CONTROL POINT

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```
====> Q
Enter new command option, or use PF3 to exit, or use PF7/8 to scroll
-----
```

ASCII Host Port	ASCII Host Name	Printer Port
32	NEWS	
34	ASCII1	
35	ASCII2	

Figure 2-46. ASCII Host Printer Assignments Screen

### TERMINATING A PRINTER SESSION

To terminate a printer session to an A/A host, delete the printer port number. Then the printer is available for IBM host sessions after they are configured.

### ERROR MESSAGES

Some of the error messages that display on the screen are:

“Invalid Printer Port” – You are trying to use a printer port.

“No ASCII Hosts Available” – No A/A hosts are assigned.

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## READ – PRIVILEGE COMMAND: RC

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This command reads the system configuration file from the system diskette to the control unit memory. The configuration file is also automatically read to the control unit during IML or power on. The host must be deactivated prior to issuing the RC command.

### READING THE CONFIGURATION

Type RC at the LCP menu, then press Enter to display the Read menu (see Figure 2-47). The message “Operation Complete” appears if the operation is successful.

```
====> RC
Enter next option
-----
LCP command options
-----
C  CONFIGURATION
```

Figure 2-47. Read Command Options Menu

### ERROR MESSAGES

The following messages display when the operation is unsuccessful:

“Inexecutable Command – Host Activated”

“I/O Error Closing File, Error Code = xx”

“I/O Error Opening File, Error Code = xx”

“I/O Error Reading File, Error Code = xx”

“I/O Error Writing File, Error Code = xx”

### ERROR CODES

<u>Error</u>	<u>Description</u>
01	Undefined request code due to probable software logic error.
02	Diskette is not operational. If this occurs, make sure the diskette is inserted properly into the disk drive and the latch is closed correctly.
03	Unrecoverable disk read/write error. If this occurs, make sure the diskette is inserted properly into the disk drive and the latch is closed correctly.
04	Invalid diskette organization. If this occurs, use another diskette.
05	File is not found. If this occurs, use another diskette.
06	Disk is busy; it has too many open files. This is a software logic error.
07	Request code does not match access type. This is probably a software logic error.
FF	Diskette file is too small. If this occurs, use another diskette.

For additional error messages, see Appendix C.

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## HOST SELECTION – BASIC/PRIVILEGE COMMAND: S

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This command enables you to connect, disconnect, or change MLT host sessions. See Chapter 3, “Terminal Operations,” for details about MLT. MLT configuration must be done prior to using this command.

**NOTE:** The Host Selection menu does not appear until the maximum number of sessions (CO) is configured.

# LOCAL CONTROL POINT

## ACCESSING THE HOST SELECTION MENU

The Host Selection menu is accessed in three ways:

- Access either basic- or privilege-level LCP. At the LCP menu, type S for Host Selection to display the menu.
- If the maximum number of concurrent sessions is configured via the CO command, when the terminal is powered on, the Host Selection menu appears unless a preferred host session is configured.
- In an active foreground host session, simultaneously press the Alt-EOF and M keys to display the menu.

```
====> S
Select session number and ENTER to connect a session, use PF7/PF8 to scroll.
Select session number and PF12 to disconnect a session, use PF3 to exit.
Select a sequence letter and PF5 for exit to selected session.
-----

                    5 Concurrent Sessions Allowed

Session      Host Name      Selection      Status
Number                               Sequence
01           NEWS                A           Connected
02          *HOST2           LU 1         B           Connected
03           HOST2           LU 2         C           Connected
04           HOST2           LU 3         D           Disconnected
05           IBML             LU 100       ?
06           ASCII1                Available
07           ASCII2                Busy
08           HOST2           LU 4         Disconnected
```

Figure 2-48. Host Selection Menu

### FIELDS

**Session Number** – This field contains a number corresponding to a host name. This number is used to connect and disconnect host sessions. You may connect up to the maximum number of sessions allowed per terminal. The maximum number of concurrent sessions is configured via the CO command. However, you may connect less than the maximum number. For example, you may want to connect only two of four host sessions. You can connect the maximum number of host sessions, disconnect one or more of the sessions, then connect any other authorized host.

An asterisk (\*) indicates the host is designated as a preferred host session. The active foreground session name is bolded.

**Host Name** – The host session names authorized via the CH and CO commands appear in this field. Up to 30 host names may be authorized for selection.

**Selection Sequence** – This sequence shows the order in which host sessions were connected. Session identifiers (A - E) appear as the host sessions are connected. View the selection sequence to determine the Jump Key sequence. When a host session is disconnected, its corresponding session identifier is deleted. The session identifier is then assigned to the next session that is activated.

**Status** – Host status information appears in this field.

**Connected** – A terminal session is currently active with either an A/A host or an IBM host.

**Disconnected** – An IBM host session is not established with the particular host.

**Available** – This indicates that the A/A host's resources are not committed to another user; you can establish a session with that host.

**Busy** – This indicates that the A/A host's resources are currently being used and your terminal cannot establish a session until that A/A host is free.

**?** – A non-SNA local host displays this symbol if the host status cannot be determined.

### ERROR MESSAGES

Some of the error messages that display are:

**"Format Error"** – The command line contains invalid characters.

**"Insufficient Memory to Display Response"** – A temporary error occurred when buffer resources were unavailable.

**"Invalid Parameter"** – The selection number is invalid or you tried to exit an unselected session.

**"Maximum Number Of Host Sessions Already Active"** – The maximum session limit has been reached.

**"Selected Host Is Currently Busy"** – The selected A/A host has no available ports.

**"Selection Already In Session"** – You attempted to select a host session that has already been connected; it has a sequence letter assigned. No user action is required.

**"Selection Out Of Range"** – The selection number is greater than the maximum number of authorized sessions, or you are trying to deallocate an unselected session.

**"User Is Not Authorized to Issue This Command"** – No sessions are authorized for selection.

## LOCAL CONTROL POINT

### WRITE - PRIVILEGE COMMAND: WC

This command writes the system configuration from control unit memory to the system diskette. The Configure command only modifies the control unit memory. The configuration changes are saved permanently on the system diskette when the WC command is issued. You must use this command if you want to save configuration changes.

#### SAVING THE CONFIGURATION

Type WC at the LCP menu, then press Enter. The message "Operation Complete" appears if the operation is successful.

```
====> WC
Enter next option
-----
LCP command options
-----
C   CONFIGURATION
```

Figure 2-49. Write Command Options Menu

#### ERROR MESSAGES

The following messages appear when the operation is unsuccessful:

- "I/O Error Closing File, Error Code = xx"
- "I/O Error Opening File, Error Code = xx"
- "I/O Error Reading File, Error Code = xx"
- "I/O Error Writing File, Error Code = xx"

#### ERROR CODES

Error	Description
01	Undefined request code due to probable software logic error.
02	Disk is not operational. If this occurs, make sure the diskette is inserted properly into the disk drive and the latch is closed correctly. The write-protect notch on the diskette should be uncovered.
03	Unrecoverable disk read/write error. If this occurs, make sure the diskette is inserted properly into the disk drive and the latch is closed correctly. The write-protect notch on the diskette should be uncovered.

## LOCAL CONTROL POINT

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<b>Error</b>	<b>Description</b>
04	Invalid diskette organization. If this occurs, use another diskette.
05	File is not found. If this occurs, use another diskette.
06	Disk is busy; it has too many open files. This is a software logic error.
07	Request code does not match access type. This is probably a software logic error.
FF	Disk file is too small. If this occurs, use another diskette.

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For additional error messages, see Appendix C.

