

TDC 3000X

**Engineer's Digest
SW09-506
R500
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Note: This digest applies to the Universal Station and to the Universal Work Station, except that the UWS has no touchscreen, so you must move the cursor to the targets and press SELECT.

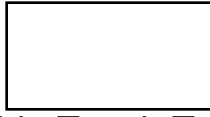
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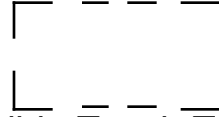
LEGEND



Engineer
Keyboard
Button



Visible Touch Target



Invisible Touch Target



Engineer's key required for data entry
(on a Universal Work Station running the Engineering
functions, press the PF1 key to place the station in the
Engineer state.)

REMOVABLE MEDIA

Throughout this digest, floppy diskettes or cartridges are referred to as removable media.











Required removable media are defined in this form:
(&C1/&C2/&VOL).

&C1: 68040 System cartridge
&C2: 68020 System cartridge
&VOL: Floppy, where "VOL" is its volume name.

LOAD A US FROM CARTRIDGES

This procedure can be used to load a Universal Station with the Universal personality WITHOUT access to the Network (HM, including US personality and area database). This procedure requires two or more cartridges: an &C1 or an &C2 and a system backup &ASY with the appropriate &Daa Area Volume and &CUS custom backplane software, if any.

Load Universal Personality

1. **RESET**  Press the **RESET** button at the Universal Station and wait for the ">" prompt to appear.
2.  Press the **LOAD** button at the Universal Station. The "**N,1,2,3,4,X?**" prompt appears.
3. Insert the &C1 or &C2 cartridge (use &C2 cartridge for a 68020 system or &C1 cartridge for a 68040 node) into drive 1 of the US and press ...
 +  to load the medium.
The "**OPR, UNP?**" prompt appears.
4.  +  to load the Universal Personality.
"**NCF? N,1,2,3,4,X?**" prompt appears.
5. Insert your NCF (the system backup &ASY) cartridge into drive 2 ...
 +  to load the NCF
ABST N,1,2,3,4,X? prompt appears
 +  to load the abstract from the &C2 or &C1 cartridge.

Follow prompts for &Daa Area Volume and &CUS Custom backplane, if applicable.




The System Status Display appears. The US is now loaded.

6. Once the US is loaded, you can load other nodes. From the System Status Display, select the desired node target, mount the appropriate cartridge for that node, select the Manual Load target and press Enter key. The cartridges you need to load these nodes are:
AM (&C3) CM (&C4) NG (&C9) HG/NIM/UCN (&C10)
with the appropriate checkpoints.

FAST LOAD A US FROM FAST LOAD CARTRIDGE

Fast Load Operator or Universal Personality

If you cannot reload from the HM, this procedure will quickly reestablish a visual connection of the US to the process in case of a loss of power (a complete TDC 3000 System shutdown). A fast load cartridge disk needs to be prepared ahead of time —see the Engineer's Reference Manual, Node Loading and Node Dumps subsection, for further instructions.

1. Insert the Fast Load Cartridge in either drive 1 or 2.
2.  **RESET** Press the **RESET** button at the Universal Station and wait for the ">" prompt to appear.
3.  **LOAD** Press the **LOAD** button at the Universal Station. The "**N,1,2,3,4,X?**" prompt appears.
4. Select the drive you are using by entering either "1" or "2".
5.  **ENTER** Press ENTER to begin the personality load.
6. "OPR, UNP?" If there is more than one US personality on a cartridge, this prompt appears.* Type in "**U**" for Universal Personality. Press ENTER. (Otherwise the default Operator Personality will load.)

* Honeywell provides you with a cartridge with the FAST_VOL.EC file for fast load of the Operator personality only. You can edit this EC file to include Universal Personality (UNP) as an option. For additional information, reference the *Engineer's Reference Manual*.



The System Status Display appears. The US is now usable.

7. Once the US is operational, you can load the gateway provided that the checkpoints have been added to the Fastload cartridge. From the System Status Display, select the desired node, then the node status target. Then select the Autoload Local target and press Enter key. The gateway is loaded automatically.

LOAD A US FROM HISTORY MODULE

Load the Universal or Operator Personality

This procedure is the easiest, most common way to load the US.

1. **RESET**  Press the **RESET** button at the Universal Station and wait for the ">" prompt to appear.
2.  Press the **LOAD** button at the Universal Station. The "**N,1,2,3,4,X?**" prompt appears.

Action: Press the **<ALPHA SHIFT>** key. Response: the key's red light appears. (Or use the Engineer's keyboard with CAPS LOCK.)

3.  +  to load the US from the network **OPR, UNP, X?** appears.

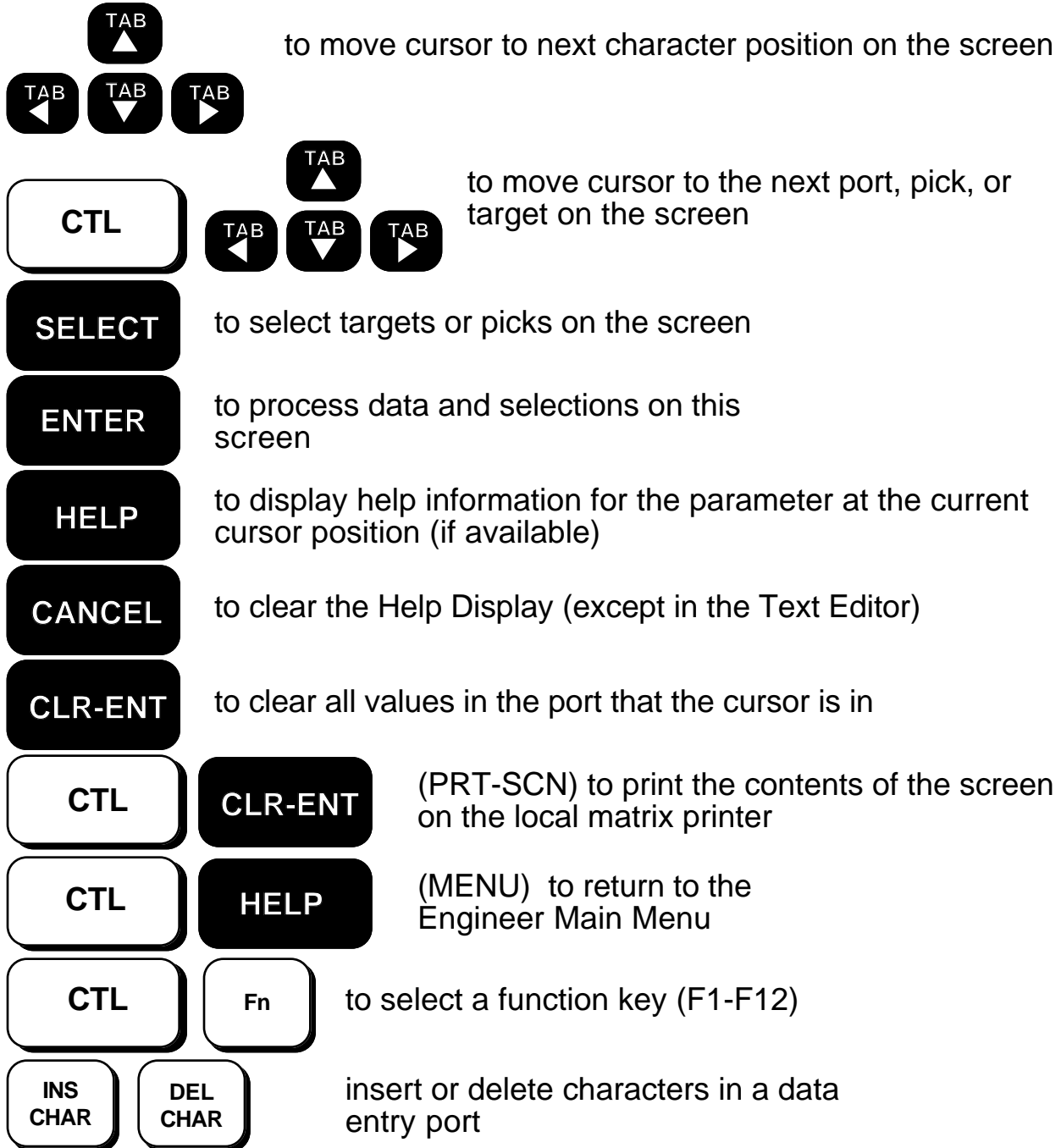
4. Type in **O** (Operator Personality) or **U** (Universal Personality)

5.  Press **ENTER** to begin the personality load.

The System Status Display appears. The US is now usable.

6. Once the US is usable, you can load other nodes. From the System Status Display, select the desired node number targets (Gateway, AM, CM, etc.), select Load Select, and press Enter. The nodes are then loaded.

Engineer Keyboard Keys (For Engineer Functions)



Refer to the activity description sections in this digest for special key functions.

Network Configurator

This activity is entered by selecting UNIT NAMES, AREA NAMES, CONSOLE NAMES, LCN NODES, SYSTEM WIDE VALUES or VOLUME CONFIGURATION from the Engineer Main Menu.

Special Key Functions



OR



to page forward or back in data entry display or go to next or previous node when in LCN NODE configuration



(DISP BACK) to return to the previous menu from the current display



Function Key Summary

- F1 HM CHECKER PROGRAM off-line: checks the Volume Configuration of all History Modules (creates file NCF.ER). On-line: syntax check
- F2 NCF INSTALL Creates the File NCF.CF from NCF.WF
- F3 SET OFF-LINE MODE
- F4 NCF PRINT prints current NCF item or displays NCF.ER file
- F5 ABORT
- F6 INITIALIZE initializes (creates) the file NCF.CF on an &ASY floppy or requests HM initialization
- F7 NEXT positions cursor at next major item on the data entry display
- F8 DISPLAY FILE displays the NCF.ER file so you can see the result of the HM Checker (F1)
- F11 TOGGLE between TAB and CSR; use the CTL key plus the up and down arrow keys for tab or cursor functions.


Data Entity Builder


This activity is entered by selecting HIWAY GATEWAY, APPLICATION MODULE, COMPUTING MODULE, NETWORK INTERFACE MODULE, BUILDER COMMANDS, HM HISTORY GROUPS, or AREA DATA BASE from the Engineering Main Menu.


Special Key Functions


 OR  to page forward or back in data entry display or go to next or previous node when in LCN NODE configuration




  OR  (DISP BACK) to return to the previous menu from the current display



 calls up the DEB command display

 clears help information, PED status display, or command display from the screen

 process and check data on this page of the PED or execute a command

 • select a function target or port to display help information
• do not select any function target or port, to display help information for ALL DEB functions

 +   move the cursor to the next port or pick on the screen. (See F11 function key summary)

 +  (Center)—move the line where the cursor resides to the center of screen

PED Status Prompts (upper right-hand corner of screen)

UN Unentered data exists in the PED set
(didn't press the ENTER button)

ERR Errors exist in the PED set
PAGE XXX of XXX - Current page and maximum page number

Exception Build Control Items (in .EB file built with Text Editor or Print Entities command)

&M tagname - names point in same IDF as new points

&X tagname - names point in IDF separate from new points

&T pnttype - defines a point type (use instead of &M and &X)

&N tagname - names a new point

& E - end of the exception-build (.EB) source file

DATA ENTITY BUILDER

Function Key Summary

- F1 PED recalls the last Parameter Entry Display (PED). If no PED has been on the screen in this session, this prompter appears: WARNING: NO PARAM. ENTRY DISPLAY TO RECALL.
- F2 RECALL DISP recalls last support display (a PED help display, a display generated by a display command, or an error file display).
- F3
- F4
- F5 OVERWRITE initiates an overwrite operation. When you attempt to write, load, reconstitute, or exception-build an entity.
- F6
- F7 RECON Requests that the entity that is identified by the data ENTERed in the first few ports on the first page of the current PED (the ports that identify the entity) be reconstituted.
- F8 PED STATUS requests the status display for the PED set. If no PED exists, this prompter appears: NO PARAM. ENTRY DISPLAY STATUS TO RECALL.
- F9 WALK BACK if a display other than a menu display is on the screen, this recalls the last menu display. If a menu is on the screen, this key recalls the preceding menu, if any.
- F10 WRITE initiates a Write to IDF command. This executes a write to the last IDF indicated in the IDF pathname in the last Write to IDF command display, without the need to call up the command display.
- F11 TOGGLE between TAB and CSR; use the CTL key plus the up and down arrow keys for tab or cursor functions.
- F12 LOAD requests that the entity in the current PED set be loaded in the appropriate module or gateway.

DATA ENTITY BUILDER

Function Key Summary (continued)



required for DEB commands that write to data files or the system database.

System Entity Names (Partial list, see Section 9.4 in the Data Entity Builder Manual)

\$HIWAYhn Hiway Configuration: hn = hiway number 01-20
\$HYhnBbn Box Configuration: bn = box number 01-63
\$HhnLIBln HGLibrary: ln = library number 1-4
\$CHun(gn) HM History Group: un = unit number, gn = group number
\$NMnnNnn NIM Data Point: nn = network number
\$NMnnBnn UCN Node: NMnn = network number, Bnn = node number
\$NnnLIBn NIM Library: nn = network number, n = library number

DATA ENTITY BUILDER

Command Summary

WRITE TO IDF write contents of the PED to the IDF
READ TO PED read a single entity from IDF into the PED
LOAD load the PED contents to its data owner
LOAD MULTIPLE load all or selected entities from an IDF to their data owners
RECONSTITUTE read a system entity from its data owner into the PED
RECONSTITUTE MULTIPLE read a list of system entities into an IDF (specified in a .EL file created in the Text Editor)
ALTER PARAMETERS Changes the parameter values in the node(s) for one or more entities.
EXCEPTION BUILD process an exception build source file, build new entities and write them to an IDF
DELETE SYS ENTITY delete an entity from the system
DELETE ENTITY FROM IDF delete an entity from an IDF
DELETE MULTIPLE ENTITIES FROM IDF delete entities specified in an Entity List (.EL file) from an IDF
DELETE MULTIPLE ENTITIES delete the system entities specified in an Entity List (.EL file)

DATA ENTITY BUILDER (continued)


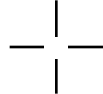
Command Summary (continued)

LIST ENTITIES IN MODULE	create an Entity List (.EL file) of entities in a specified module and display it on the screen
LIST ENTITIES IN IDF	create an Entity List (.EL file) of entities in a selected IDF and display it on the screen
REPACK IDF	inspect, compact, or upgrade an IDF
DISPLAY FILE*	display a text file on the screen (.EF, .EL, .SL, or .UL)
EXECUTE COMMAND FILE	executes a file containing a number of DEB commands (refer to section 8 in the DEB manual).
PRINT FILE*	print a text file on a console printer (.EF, .EL, .SL, or .UL)
PRINT ENTITIES	print a complete list of parameter names and values on a console printer from the PED (screen entity), a system entity, or from entities in an IDF; if destination is in name .EB form, creates an Exception Build file.
SELECT AREA	sets up area pathname
INSTALL AREA	installs Area Data Base in workfile
NEW	initialize (clear and set to defaults) the current PED

* See Standard File Suffixes towards back of digest.

Picture Editor

Special Key Functions—use keys in a condition, target, or variant; also see F1 -F4 function keys listed at the bottom of the Picture Editor.

CTL **F1** change cursor to character  or pixel 
increment


   + **SELECT** OR use the touch screen to position the cursor and select a coordinate point

DEL to erase the last coordinate point entered

CANCEL (Undo) press once to cancel the effects of the last command, press again to return to the original state—except for write and compile commands

CTL **Behavior Key** to change the literal behavior for adding new objects to the screen

ESC from the Picture Editor, this key takes you to the Command Processor; in Command Processor type END or press the CNTRL + HELP keys to return to the Picture Editor

HELP to display help information for the parameter at the current cursor position

Picture Editor (continued)

Status Indicators (at the top of the screen)

FGB (default) graphics between character foreground and background

FBG graphics behind character foreground and background

GFB graphics in front of character foreground and background

R-xxx,yyy current x,y roll coordinates in character units

C-xxx,yyy current x,y cursor coordinates in pixel units

Color Priority

1 - White	3 - Magenta	5 - Yellow	7 - Red
2 - Cyan (light blue)	4 - Blue	6 - Green	8 - Black

Standard Change Zone Configuration

1. Enter the command: ADD SUB CHG_ZONE
2. Select location in Edit Region (zone is 3 lines x 80 characters)
3. Enter "Real" for all value-type questions

Commands

ADD BAR [coords] - create a bar graph object

ADD BEH beh - add a behavior to the selected object(s)

ADD COND - add a condition to the selected object(s)

ADD INH - add the inherit property to selected object(s)

ADD LINE [coords] - create a line or line drawing

ADD PRI ppp - add FGB, FBG or GFB priority to object(s)

ADD SOL [coords] - create a solid object

ADD SUB [path] - add a subpicture to the screen

ADD TAR [coords] create a target

ADD TEXT [coords] add text to the screen

ADD VAL [coords] add a live value to the screen

ADD VAR [coords] create a variant on the screen

COM [path] compile the picture to an object file (.DO)

COP [coords] copy the selected object(s)

COP [BAR, LINE, SOL, SUB, TAR, TEXT, VAL, VAR]

DEFINE emulates target actions

DEFINE [INIT, FIN, PAGE_F, PAGE_B, DISP_F, DISP_B, H, A]

DEL delete the selected object(s) from the screen

DEL [BAR, BEH, COND, INH, LINE, PRI, SOL, SUB, TAR, TEXT, VAL, VAR]

PICTURE EDITOR (continued)

Commands

DES	deselect already selected objects (see SEL for options)
END	exit to the Engineer Main Menu
LOAD	loads a DDB file
MOD	modify the selected object(s)
MOD [BAR, COND, LINE, SOL, SUB, TAR, TEXT, VAL, VAR]	
MOVE [coords]	move the selected object(s)
MOVE [BAR, LINE, SOL, SUB, TAR, TEXT, VAL, VAR]	
MCOMP	multiple compile
MPRINT	multiple print
NEW	clear the edit region
PRINT \$Pn	print a description of the current picture
READ [path]	read a picture from a source file
REPLACE	replaces old subpicture with new subpicture
SCALE [BAR, LINE, SOL, SUB, VAR]	scale selected object(s)
SEL	select objects for editing.
SEL [BAR, BEH, COND, INH, LINE, PRI, SOL, SUB, TAR, TEXT, VAL, VAR]	
SET BEH beh	set the literal behavior
SET COL	set the data collection rate for variables
SET GRID on/off	enable/disable grid display
SET NET on/off	turn network access on or off
SET ORIG [coords]	set a new origin for the edit region
SET PATH path	set a new default pathname
SET PRI ppp	set the literal priority to FGB, FBG, or GFB
SET ROLL [coords]	move the edit region
WRITE [path]	write the picture to a source file (.DS)
VER	verify cleans up problems in picture

Free Format Log Builder

Commands

ADD SUBPICTURE	add a subpicture to the log
ADD TEXT [coords]	add text to the log
ADD VAL [coords]	add a value to the log
ADD VARIANT	add a subpicture to the log
COM [path]	compile the log to an object file (.FO)
COP [TEXT, VAL] [coords]	copy the selected object(s)
DEL [TEXT, VAL]	delete the selected object(s) from the screen
DES [TEXT, VAL]	deselect already selected objects
END	exit to the Engineer Main Menu
MOD [TEXT, VAL]	modify the selected object(s)
MOVE [TEXT, VAL] [coords]	move the selected object(s)
NEW	clear the edit region
PRINT \$Pn	print a description of the current log display
READ [path]	read a log from a source file
SEL [TEXT, VAL]	select objects for editing
SET COL	set the data collection rate for variables
SET GRID on/off	enable/disable grid display
SET NET on/off	turn network access on or off
SET PATH [path]	set a new default pathname
SET ROLL [coords]	move the edit region*
WRITE [path]	write the log to a source file (.DS)

[] = optional data

coords = x1 y1 x2 y2 (in pixel units, x = 0-1920, y = 0-1344, maximum)

path = device>volume>filename or just filename

SET ROLL 0 42 to move edit region to upper left corner of log

SET ROLL 52 42 to move to upper right corner

SET ROLL 0 21 to move to middle left-hand side

SET ROLL 52 21 to move to middle right-hand side

SET ROLL 0 0 to move to lower left corner

SET ROLL 52 0 to move to lower right corner

Free Format Log Builder (continued)

***Collectors** (used for expressions in ADD VALUE entries)

ACKSTAT	returns acknowledge state for point alarm
DAY_S	reports status of averaged-value, n days offset
DAY_T	returns date/time stored with variable, n days offset
DAY_V	returns Avg value of variable, n days offset
HMDAY	returns Avg value daily for n point, n days back
HMHOUR	returns hourly average value for, n hours back
HMMIN	returns current minute (snapshot) value
HMMONTH	returns monthly average value for, n months back
HMSHIFT	returns shift average for, n shifts back
HMUSR_AV	returns user average value for n periods back
HOUR_S	reports status of averaged-value, n hours offset
HOUR_T	returns date/time stored with variable, n hours offset
HOUR_V	returns Avg value of variable, n hours offset
MINUTES_S	reports status of averaged-valued, n minutes offset
MINUTES_T	reports date/time stored with variable, n minutes offset
MINUTES_V	returns Avg value of variable, n minutes offset
MONTH_S	reports status of averaged-value, n days offset
MONTH_T	returns date/time stored with variable, n days offset
MONTH_V	returns Avg value of variable, n days offset
SHIFT_S	reports status of averaged-value, n shifts offset
SHIFT_T	returns date/time stored with variable, n shifts offset
SHIFT_V	returns Avg value of variable, n shifts offset
SYS_TIME	returns system time or date
TMDAY	returns day/date as of n days back
TMHOUR	returns hour value as of n hours back
TMMIN	returns minute value as of n minutes back
TMMONTH	returns month value as of n months back
TMSHIFT	returns shift date/time as of n shifts back
TMUSR_AV	returns user average period as of n periods back
TR_COLOR	returns trend trace color
TR_DATA	returns data source for the trace being trended
TR_NAME	returns name of variable being trended
TR_RNGHI	returns high-range value for trace
TR_RNGLO	returns low-range value for trace
TR_SCRLL	returns scroll date and time
TR_TIME	returns the time base used for the trend
USER_S	reports status of averaged-value of variable
USER_T	returns date/time stored with variable
USER_V	returns Max/Min/Avg/Sum value of variable
\$KEYLEVEL	returns the status of the US Keylock Level

Button Configurator

Special Key Functions



use the touch screen to position the cursor and select a button to configure



to skip the data entry displays for a button that is part of a multiple-button sequence (see the BUTTON command)



Cancels all entered data and returns to the button configuration menu



process and check data on a data entry display or execute a command

Commands

SET PATH [path]	set a new default pathname
SET NET on/off	enable or disable network data access
SELECT [string]	search for a specified text string
READ [path]	read in a configuration from a source file
WRITE [path]	write configuration to a source file
NEW	clear the button configuration for the entire menu
COPY n1 n2	copy data from button(s) n1 to button(s) n2
DEL n	delete the configuration data for button(s) n
COMP [path]	compile configuration to an object file
BUT n	select the specified button(s) for configuration
END	exit to the Engineer Main Menu
PRINT n1...n2 dev	print configuration for buttons n1 through n2

[] = optional data

n = x or x,y,z ... or x...n

path = device>volume>filename or just filename

dev = \$Pn

When configuring a button:

Use Display Actions (page 14) to fill in ACTION box.

Type in unit ID's separated by commas or spaces in LAMP box.

Picture Editor Display Actors

Below is a partial list of keywords to type into the "ACTION" box when configuring a target or a button.

ALARMANN	call up the Alarm Annunciator Display
ATTRIBPS	call up the Attribute Point Summary Display
ALARMSUM	call up the Area Alarm Summary Display
BATCH_TS	call up the Batch Title Summary Display
BOX_PS	call up the Box Point Summary Display
BOX_STAT	call up the Box Status Display
CANCLPRT	cancel print
CHGZONE	call up a change zone for a point
CLR_SCRN	clear the screen
CROSSCRN	direct a display callup to a specific screen
CUSTSAVE	call up the Custom Save Display
DETAIL	callup the detail display for a point
DMD_UPD	demand an immediate display update
EHR	call up the Event History Retrieval Display
ENT_EXEC	enter to executive
FRM_SCRN	move a specified screen to this screen
GROUP	call up an Operating Group Display
GRPTREND	call up A Group Trend Display
GRP_EDIT	call up the Group Edit Display
HWY_STAT	call up the Hiway Status Display
INITFLOP	call up the Floppy Initialization Display
IOM_DIAG	UCN I/O Module Diagnostic Display
KEY	key simulation
LM_DIAG	Logic Manager Diagnostic Display
MODGROUP	call up a Process Module Group Display
MOVE	move the cursor to a specific position
MSGSUM	call up the Message Summary Display
MULT_OV	multiple serial overlays
NIM_DIAG	NIM Diagnostic Display
NODE_PS	call up the Node Point Summary
OSUMMENU	Organizational Summary Menu
OVERLAY	overlay
OVERVIEW	call up the Overview Display
OVW_EDIT	call up the Overview Edit Display
PM_CMD	send command to PM
PMM_CMD	Process Manager Module/NIM Diagnostic Display

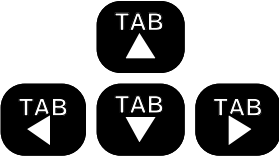

Picture Editor Display Actors (continued)



PM_STAT	Process Manager Status Display
PROCMOD	call up a Process Module Detail Display
PROMPT	put a message in the prompt region
PROMPT_C	clear the prompt region
PVR	call up the Process Variable Retrieval Display
QUE_KEY	queue key
REP_MENU	call up the Report Menu
RTJ	call up the Real Time Journal Assignment Display
SCHEM	call up a schematic display
TITLESUM	call up the Title Summary Display
TRENDOVW	call up the Area Trend Overview Display
UCN_STAT	UCN Status Display
UNIT_PS	call up the Unit Point Summary Display
UNITSUM	call up a Sequence Unit Summary Display
UNITTRND	call up a Unit Trend Display
UPDATE	demand an update of certain display variables
USAGE_PS	call up the Point Usage Summary Display
USER_CZ	User Change Zone


For a complete list of action procedures, see the Picture Editor Reference Manual in the Implementation/Engineering Operations - 2 binder.



Command Processor Utilities


Special Key Functions

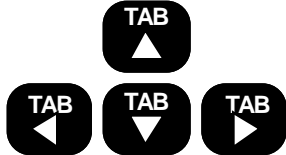
 +  OR use the touch screen to position the cursor and select a command to be copied from the display area into the command region.


 OR  to display the next or previous 24 lines of data in the display area


 execute a command


  (BREAK) terminates the current command operation without corrupting files

 required to execute all commands

 move cursor to beginning or end of line;
move cursor page up and page down

 erase the character to the right of the cursor

 erase from the cursor to the end of the line

 erase the character to the left of the cursor

Command Processor Utilities

Commands

ACT pointname - activate an inactivated point (R430 and later)
BACKUP PN:nn \$Fn - backup HM (PN:nn) to removable media (\$Fn)
CD dev>vol dir - create directory
CP dev>vdir>file1.xx dev>vdir>file2.xx [-D] - copy a file
CP dev>vdir1>*. * dev>vdir2>= [-D] - copy all files
CPV dev>vol1 dev>vol2 [-A] [-D] [-I] - copy a volume
CR or **CV** dev>vol [-F] [-MF #####] [-MD] [-FD] [-BS #####] - create vol. on flop./cartr.
DD dev> dir or **DD** dev>vol dir - delete directory
DL dev>vdir>file.xx [-D] - delete a file
DO \$Pn - direct output from commands to a printer
DO dev>vdir>file.xx - direct output from commands to a file
DO - cancels the effects of the previous Data Out (DO) command
EC dev>vdir>file.EC [parameter(s)] - execute a command file
ED dev>vdir>file.xx [-MACRO file2.xx] - edit a file
END - exit the Command Processor
FCOPY \$Fn \$Fm - floppy/cartridge copy utility (both drives on same US)
FN - find names menu
INACT pointname - inactivate an activated point (R430 and later)
LD nn nn nn - load multiple nodes with default on-process personality
LD EPnn UPnn - load multiple US nodes with specific personality
LS or **CAT** dev>vdir>file.xx [-D] - catalog listing of specified files
LS or **CAT** \$Fn [-D] - floppy/cartridge catalog listing (other options)
LV PN:nn or **LV** NET - list volumes and directories on HM
MFD dev>dir or dev>vdir>file.xx - modify file or dir. descriptor to 64 char.
MV dev>vdir1>file. xx vdir2 - move file to another dir. in the same vol.
OFF or **OFFLINE** PN:nn n - Set HM disk drive off line
PD ON or OFF - enable/suppress printing of prompter & error messages
PO \$Pn - send command lines, completion & error msgs to a printer
PO dev>vdir>file.xx - send command lines & messages to a file
PO - cancel prompt data output
PR or **P** dev>vdir>file.xx - print and display contents of a text file
PT or **PROT** dev>vdir>file.xx - protect a file (make read-only)
RESTORE \$Fn NET>vol or **RESTORE** \$Fn PN:nn>vol - Restore volume from media to HM
RN dev>vdir>file1.xx file2.xx [-D] - rename a file
RN dev>vol1 vol2 [-D] - rename a volume on a floppy or cartridge
SLW - slew printer paper (move paper to top of form); use with DO, PO
SP or **SET** dev>vdir - set user pathname
STA or **STATUS** - list logical ID, node #, vol. ID of dev. on US console
STA PN:nn or **STA** NET- get HM drive status; get all HMs on LCN
SVD dev>vol descriptor - set (change) a volume descriptor
SYN or **SYNCH** PN:nn - synchronize redundant HM disk drive
UNPT or **UNPROT** dev>vdir>file.xx - remove file protection (unprotect)
WB PN:nn>!9np -write boot record to HM local volume (**WB** \$Fn>&LDR, make flop./cart. boot)

[] – optional

dev – NET, \$Fn, or PN:nn

NET – History Module on LCN (online access)

\$Fn – floppy/cartridge ID on US

PN:nn – LCN node ID of HM (offline access)

vdir – volume or directory name

vol – volume name

dir – directory name

. – wildcard

= – wildcard to receive

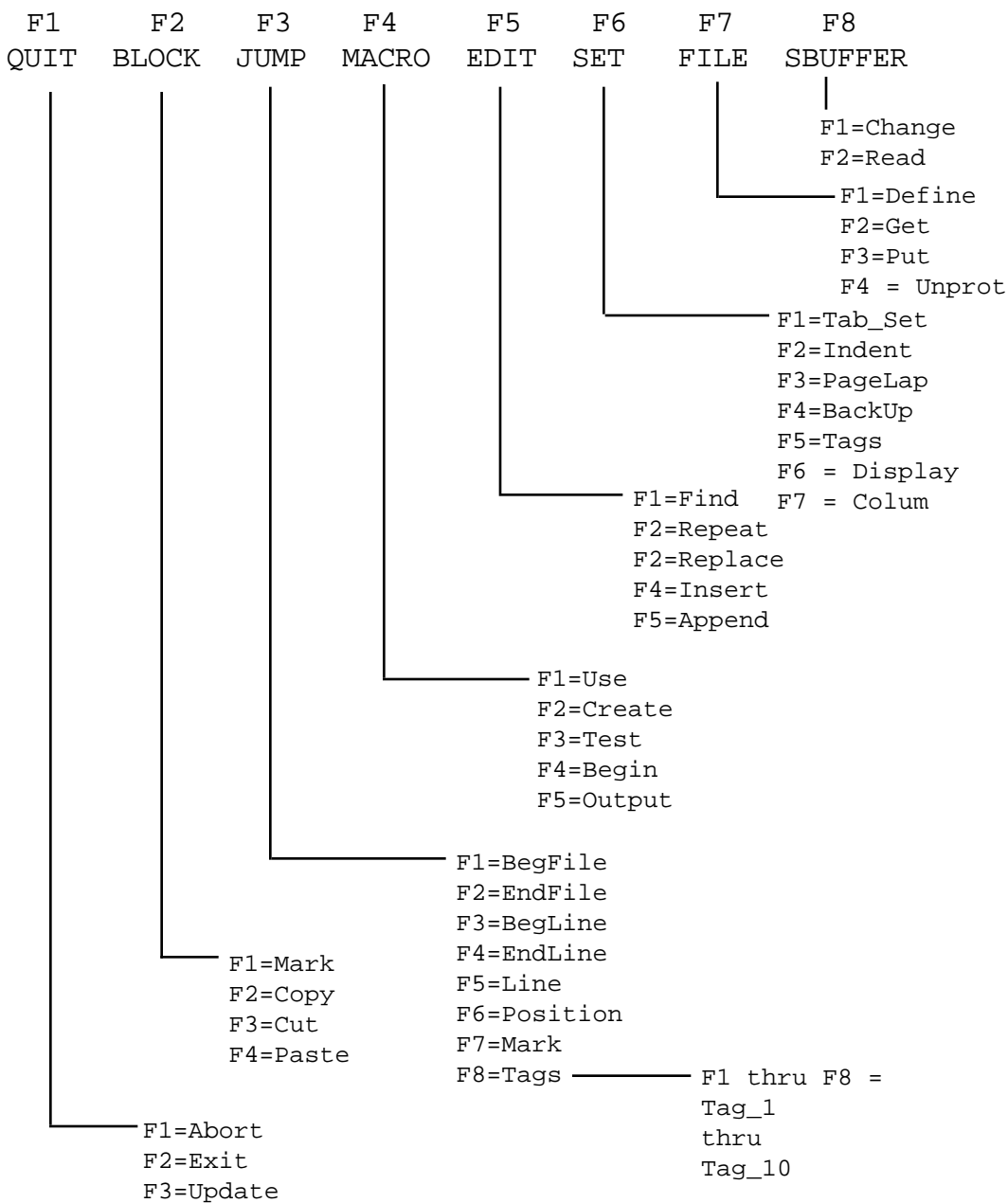
n, m, or nn – a one or two digit number (1, 01)

Text Editor

Special Key Functions

- RETURN** begins a new line
- DEL CHAR** OR **DEL** delete characters on a line
- LF** + **DEL** reinsert the characters just deleted at the cursor position
- DEL LINE** delete the line the cursor is on
- LF** + **DEL LINE** reinsert the line just deleted at the cursor position
- TAB** (up arrow) move cursor to the next character position
- TAB** (left arrow), **TAB** (down arrow), **TAB** (right arrow)
- CTL** + **TAB** (up arrow), **TAB** (left arrow), **TAB** (down arrow), **TAB** (right arrow) move cursor to the next tab setting
- CTL** + **DEL CHAR** (Home) move cursor to top of screen
- CTL** + **DEL LINE** (Mark) place cursor in text, press keys shown, then move cursor in any direction to highlight (mark) text. Use with **DEL LINE** and **INS LINE** keys to cut and paste marked text
- CTL** + **PAG FWD** OR **PAGE BACK** move cursor to the beginning or end of the file
- PAG FWD** OR **PAGE BACK** display the next or previous page of text on the screen
- HELP** display a complete list of commands and button functions

Text Editor Function-Key Commands



TEXT EDITOR

Alternate (LF) Text Editor Commands

LF + **B** move cursor to beginning of the text file

LF + **TAB** (up), **TAB** (down), **TAB** (left), **TAB** (right) move cursor to beginning or end of line; move cursor page up and page down

LF + **F** + **a #** + **RETURN** find a text string (first occurrence)
type in text string

LF + **I** begin or end the text insert mode

LF + **K** + **#** + **RETURN** delete n lines starting with line cursor is on

LF + **L** repeat search for the current text string (finds next occurrence)

LF + **Q** exchange (changes character case)

LF + **S** define a tab stop **LF** + **R** clear a tab stop

LF + **W** + **#** + **RETURN** set window size to n lines
type in number of lines

LF + **#** + **n** + **RETURN** use n as a decimal character
type in number

Press **Help** to see the rest of the LF commands on the Help display.

Area Database Configuration

This function operates the same as specified in the Data Entity Builder section, except for the following differences.

DEB Commands

LOAD	load the PED contents into an Area Database workfile
LOAD MULTIPLE	load all or selected entities from an IDF into an Area Database workfile
RECONSTITUTE	read an entity into the PED from the Area Database workfile (use entity names listed below)
RECONSTITUTE MULTIPLE	read several entities (listed in an .EL file) from an Area Database workfile into an IDF
SELECT AREA	set up Area Database pathname and go to Area-build mode
INSTALL AREA	create an installed Area Database file from a workfile

Area Reserved Entities

\$RUNTSTS - Unit Assignments
\$OOVERVW - Overview Display
\$OGROUP(n) - Group Display, n = 1-400
\$OUNTRND(n) - Unit Trend Display, n = 1-36
\$OSYSTAT - System Status Displays
\$OLOG(n) - Standard Log, n = 1-100
\$OPRTRND(n) - Printed Trend, n = 1-100
\$ANPOLC - LCN Node Annunciation Policy
\$OABSTRT - Pathname Catalog
\$OMODGRP(n) - Process Module Group Display, n = 1-50
\$OUNITSM(n) - Unit Summary Display, n = 1-36
\$ANNDATA - Alarm Annunciator Display
\$OFFLOG(n) - Free-Format Log, n= 1-100
\$OREPORT(n) - Report, n = 1-100
\$DMONBLK - Hiway Annunciation Policy
\$OTREND - Area Trend Overview Display
\$OBTCHSM - Batch Summary Display
\$OPRCJOR - Process Journal
\$OSYSJOR - System Journal
\$OSOEJOR - SOE Journal
\$RTJNL - Realtime Journal Assignments

Standard File Suffixes

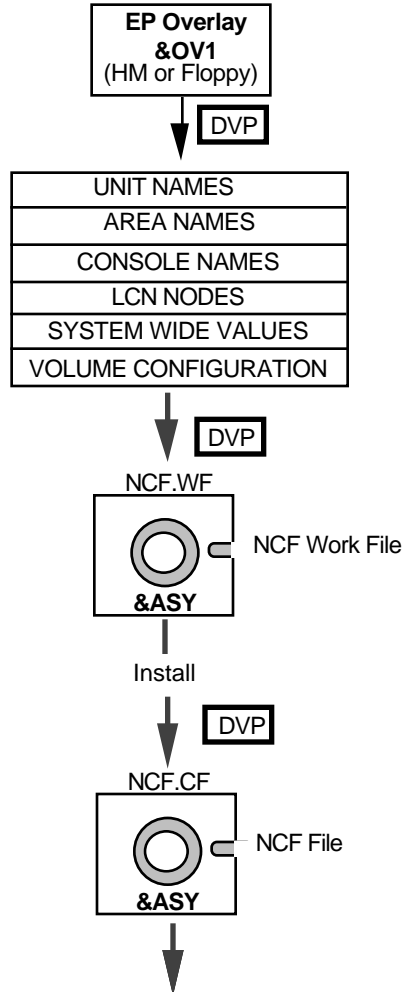
--	Temporary File*	JL	Logic Block Listing*
AG	Error Aggregate File	JO	Logic Block Object
AM	Noncyclic Archive Data	JS	Logic Block Source*
AO	CL/AM Object File	JT	Logic Block Temporary File
BH	Batch History File	KF	S/W Options Key File
BO	Boot File	KO	Button Configuration Object
BU	Backup Text File*	KS	Button Configuration Source
CF	Configuration File	LE	CL Error Listing*
CL	CL Source File*	LM	CL Link Map
CM	Journal File	LO	Loadable Personality Image
CO	Configuration Object File	LS	CL Listing File*
CP	Checkpoint File	MM	Permanent RNOS File
DA	Installed Area Database	MO	CL/MC Object File
DB	Intermediate Data File	MS	Miscellaneous File
DF	Deamon Declaration	PA	Printable Aggregate
DO	Display Abstract Object	PI	Personality Image
DS	Display Abstract Source	PL	Parameter List
DX	DDB File when using User or Global definitions		
DU	Memory Dump File	PS	Peer-Supplied List
DY	DEB Error File	SD	Data Segment Descriptor
EB	Exception Build Source*	SE	Standard Enumerations
EC	Execute Command File*	SF	Subroutine/Function Declarations
EF	Error File (DEB)*	SL	Successful Entity List*
EL	Edited List, Entity Names*	SP	Standard Parameters
EM	CL Compiler Error Mesgs.	TI	Task Identifier File
EN	Event Name File	TO	Trend Memory Image
EO	Command Processor File	TR	CL Trace/Dump File
ER	Error Report Buffer File*	UL	Unsuccessful Entity List*
FO	Free-Format Log Object	UM	Unit Control File for Save
DS	Free-Format Log Source	WA	Area Database Working File
GD	Custom GDF File	WF	Configuration Work File
GM	Group Control File	X	User Text File (start with X)*
HF	Point Building Help File	Y	User Text File (start with Y)*
IF	Intermediate DEB File	Z	User Text File (start with Z)*

* file type that can be printed or edited with the Text Editor

Data Paths

Network Configuration

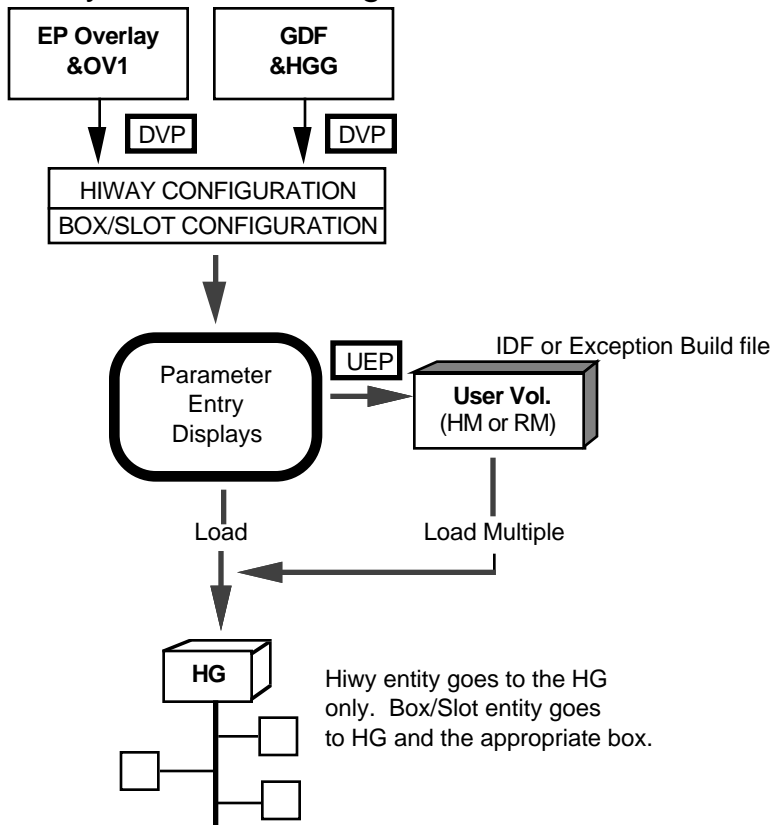
- DVP** Pathname from Modify Default Display
- UEP** User-entered pathname
- PNC** Pathname from Pathname Catalog which is configured in Area configuration



&ASY is the data (not checkpoint) source as each node is loaded, and NCF.CF is loaded at that time (&ASY is loaded in a US from a floppy or from an HM. Nodes get NCF from the HM if it is running or from the media used in their loading).

Data Paths

Hiway, Box/Slot Configuration



DVP Pathname from Modify Default Pathnames Display

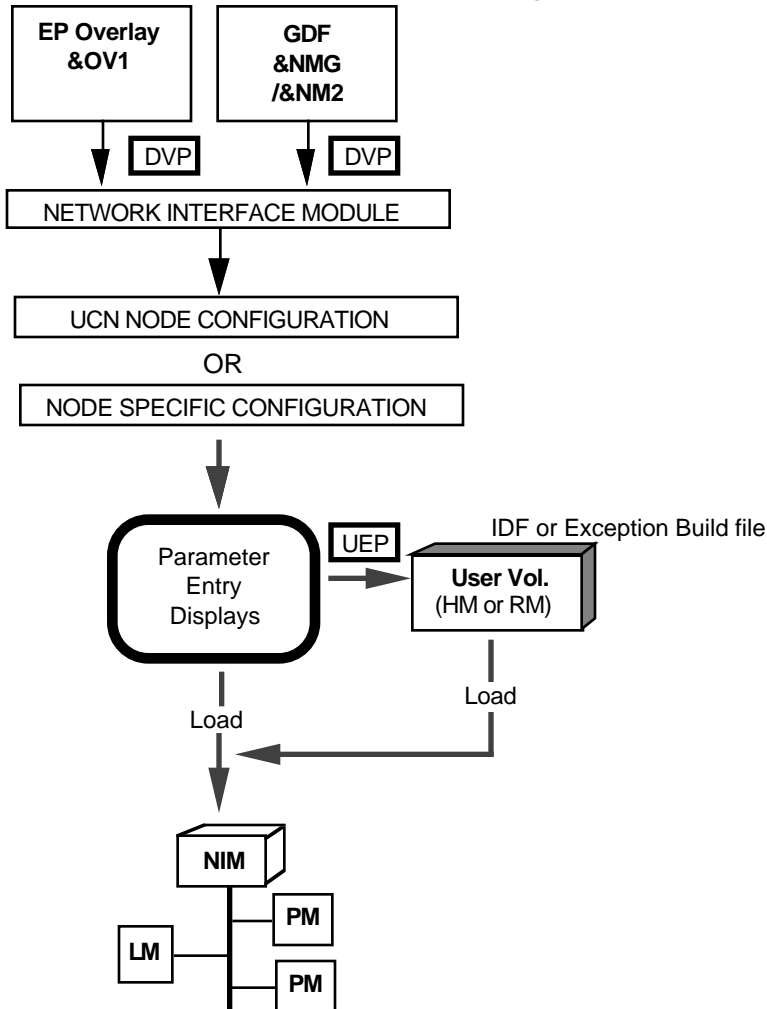
UEP User-entered pathname

PNC Pathname from Pathname Catalog which is configured in Area configuration

RM - Removable Medium (floppy diskette or cartridge)

Data Paths

UCN Node, Node Specific Configuration



DVP Pathname from Modify Default Pathnames Display

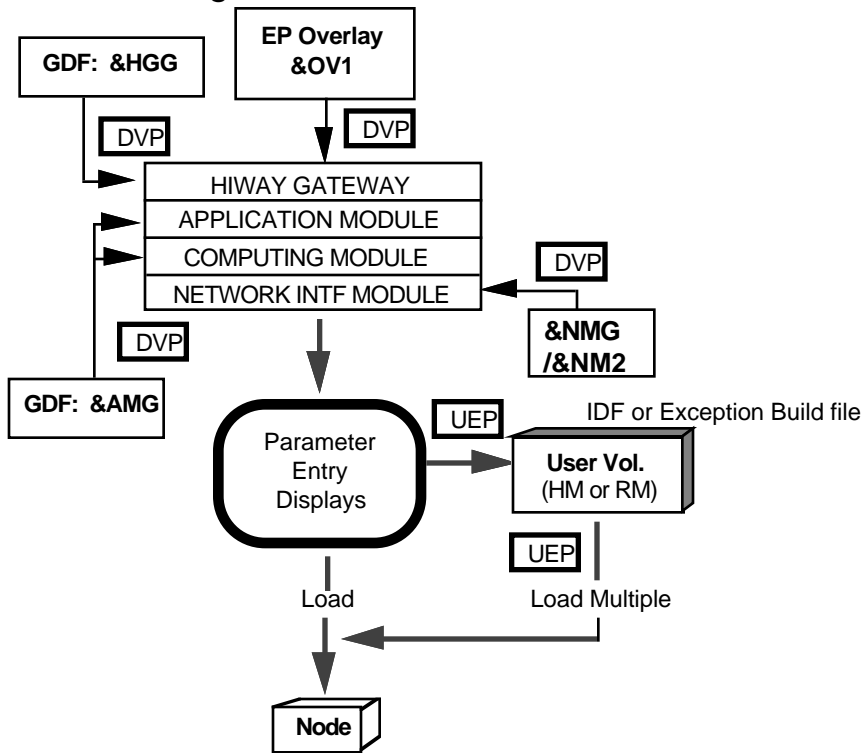
UEP User-entered pathname

PNC Pathname from Pathname Catalog which is configured in Area configuration

RM - Removable Medium (floppy diskette or cartridge)

Data Paths

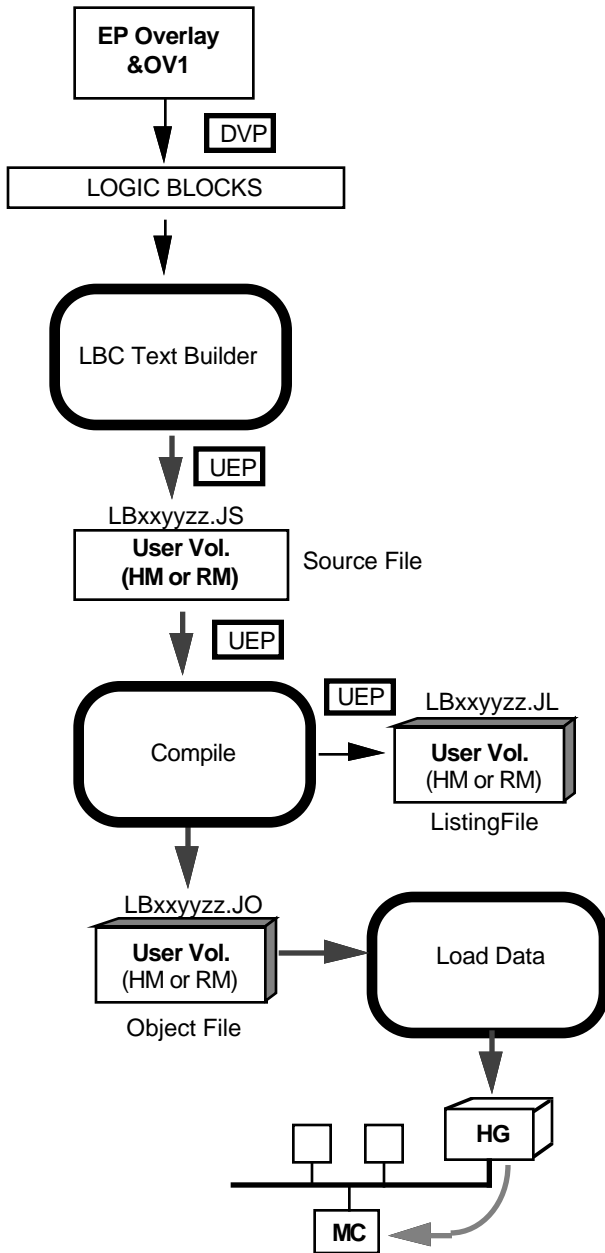
Point Building



- DVP Pathname from Modify Default Pathnames Display
- UEP User-entered pathname
- PNC Pathname from Pathname Catalog which is configured in Area configuration

Data Paths

Logic Blocks



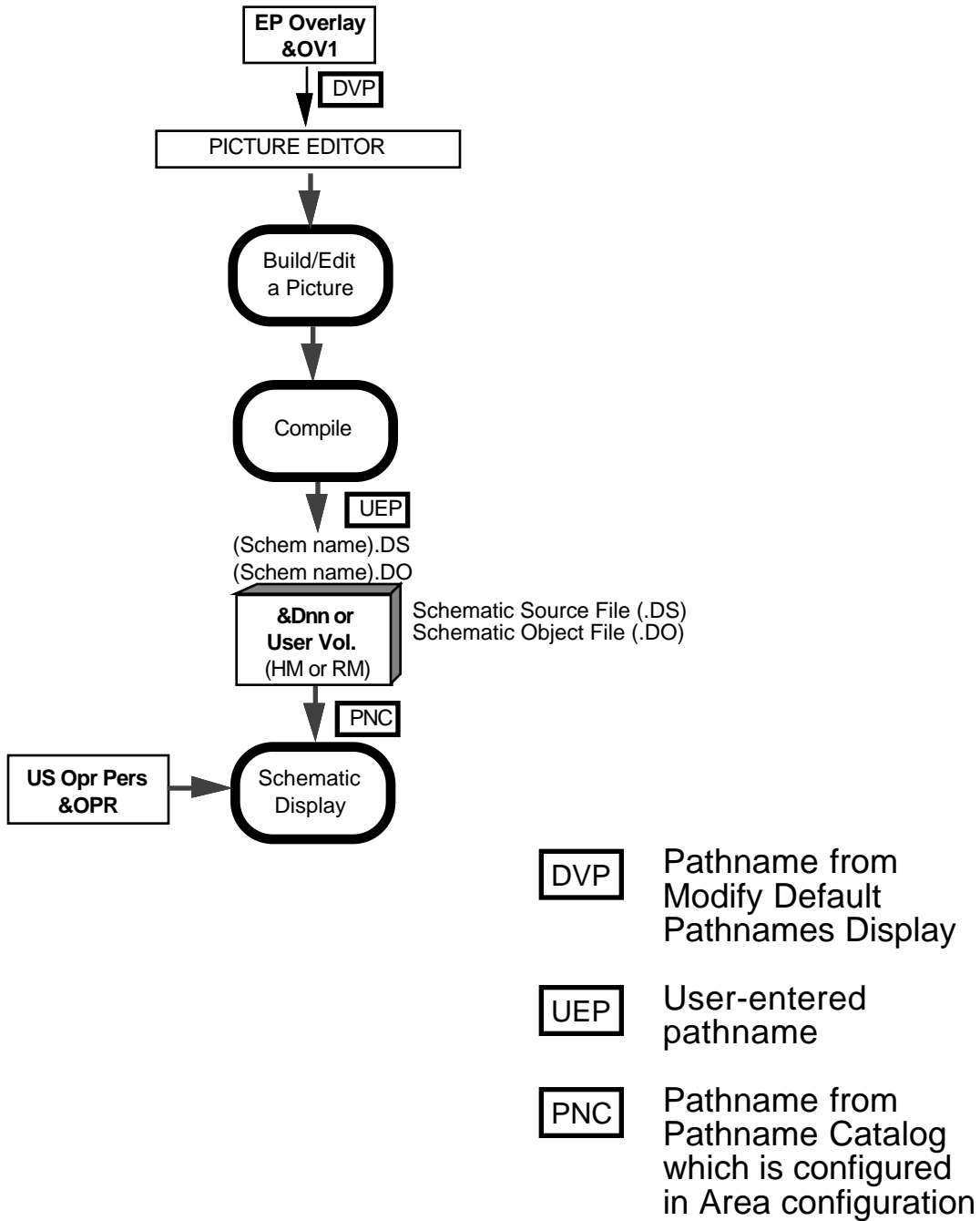
DVP Pathname from Modify Default Pathnames Display

UEP User-entered pathname

PNC Pathname from Pathname Catalog which is configured in Area configuration

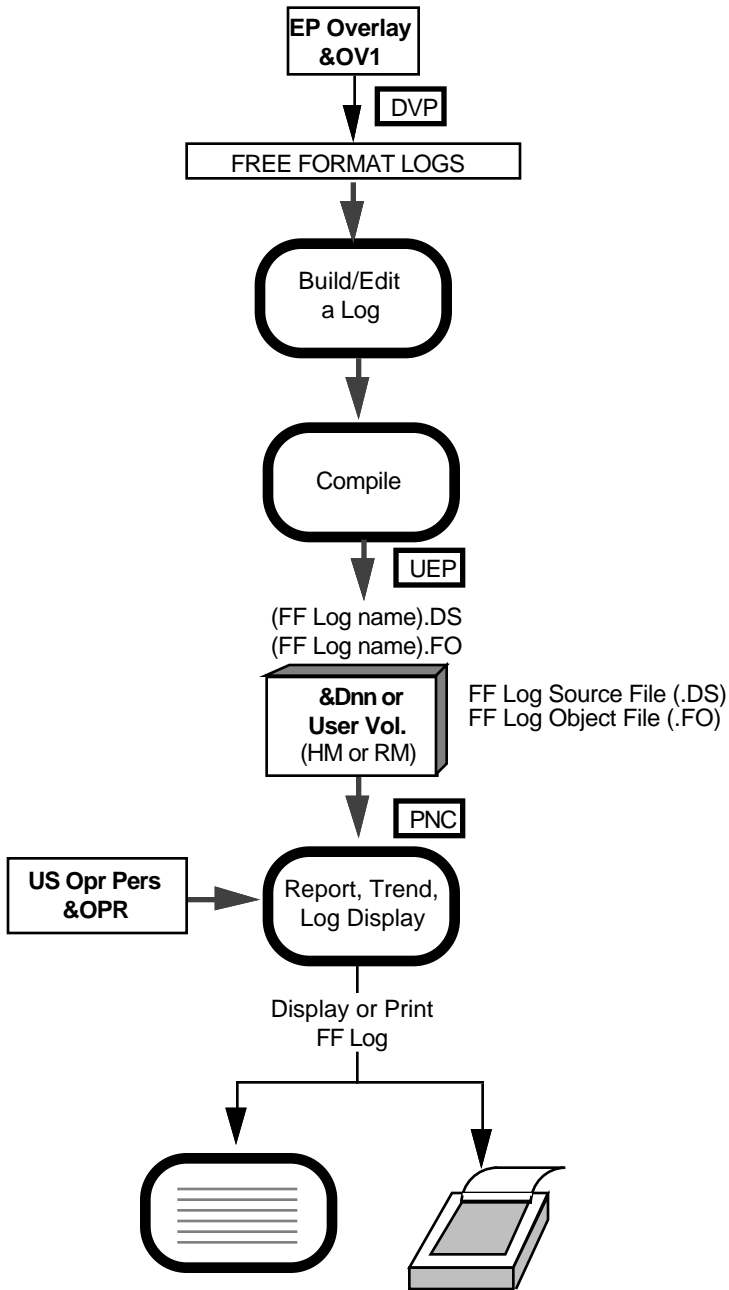
Data Paths

Picture Editing



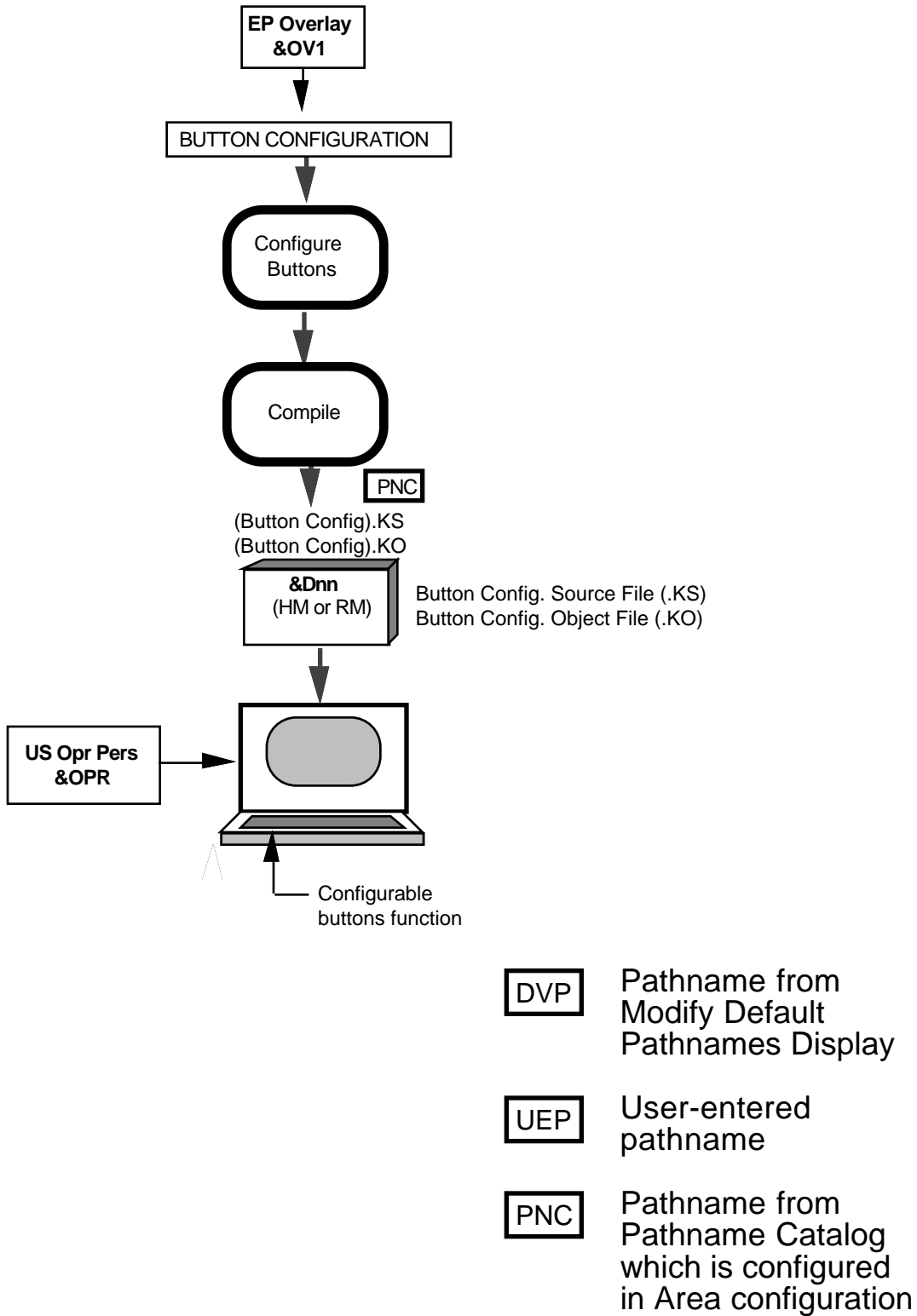
Data Paths

Free Format Logs



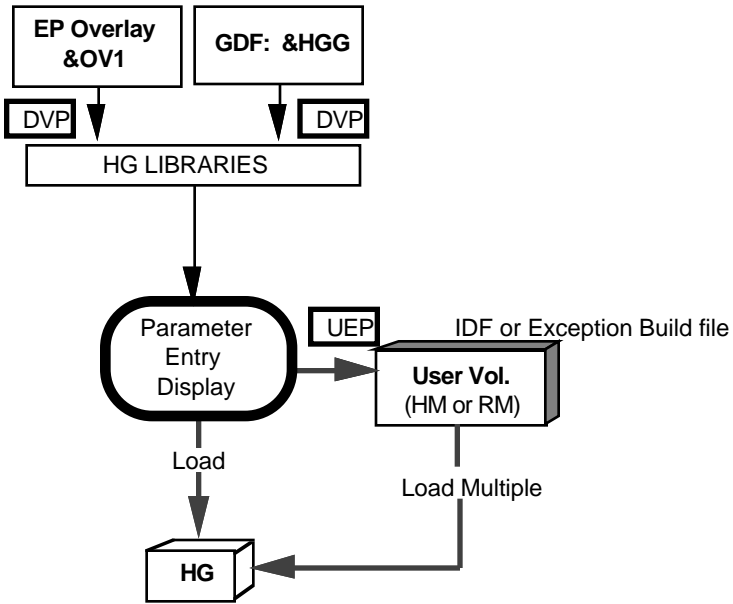
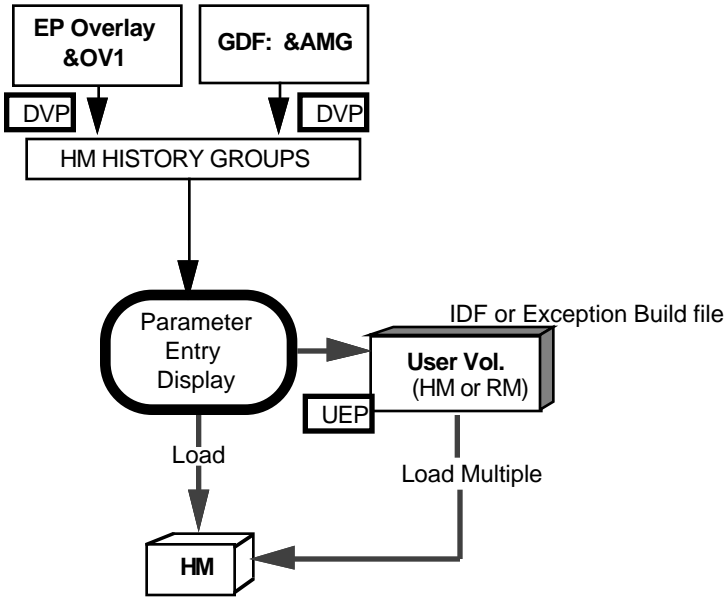
Data Paths

Button Configuration



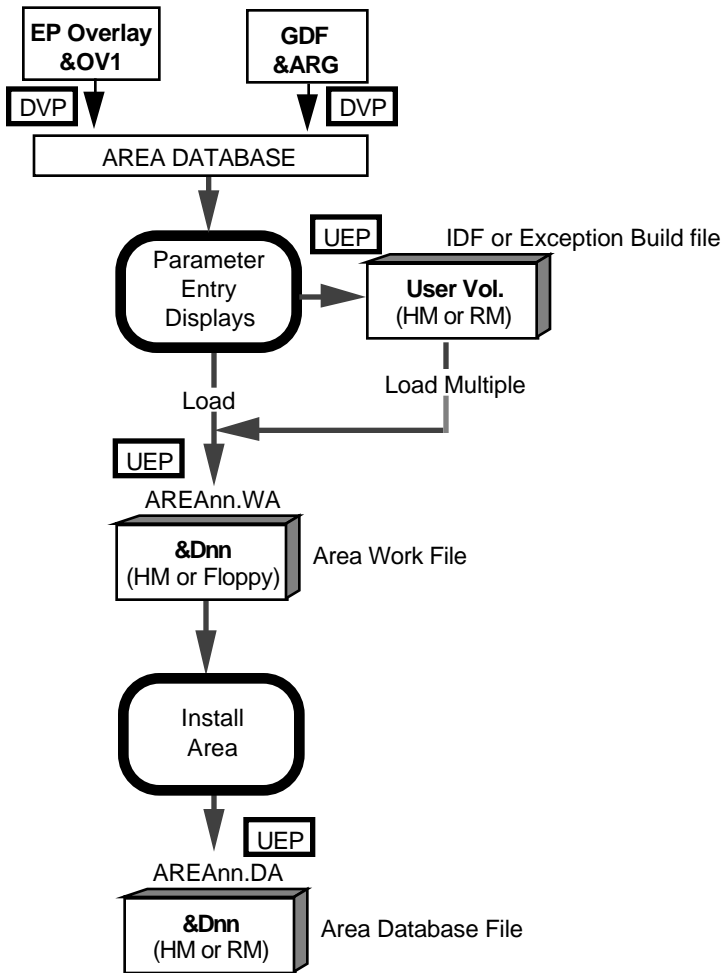
Data Paths

HM History Groups, HG Libraries



Data Paths

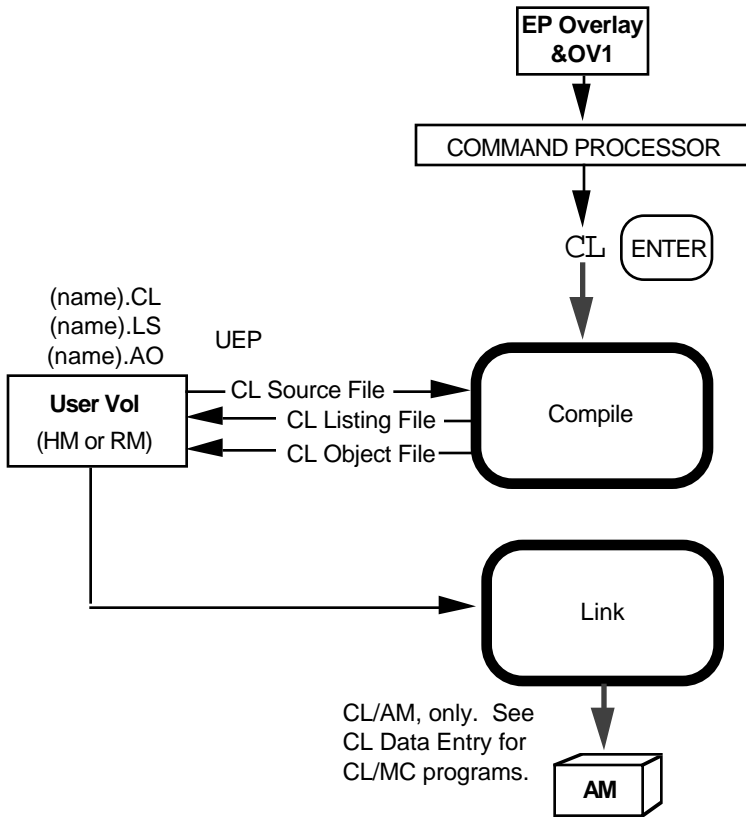
Area Databases



Area configuration becomes effective when AREAnn.DA is included in the data as a US is loaded (or reloaded).

Data Paths

CL Programs



DVP

Pathname from Modify Default Pathnames Display

UEP

User-entered pathname

PNC

Pathname from Pathname Catalog which is configured in Area configuration

NOTES

NOTES

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