

CRAY T90 SERIES LME INTERFACE REFERENCE

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Description of this Document

This document is a reference to the user interface for the Logic Monitor Environment (LME) application used to control the logic monitors on CRAY T90 series CP, SR, and IO modules. This document describes the components of the LME base window and all menu button commands. Figure 3 shows all available menu button commands and lists the pages on which the commands are described.

This document is one component of the LME documentation set, which includes the following documents:

CRAY T90 Series LME User Guide, publication number HDM-xxx-0.

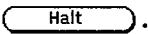


This document provides a general procedure of how to use LME.

CRAY T90 Series LME Interface Reference, publication number HDM-xxx-0.

This document describes the LME user interface. It describes the LME base window and all available menu button commands.

Notational Conventions

This document uses the following notational conventions:

- Buttons are shown the way they appear in a window; for example,  .
- Settings are shown the way they appear in a window; for example,  .
- The \rightarrow symbol indicates holding the MENU mouse button down and moving the mouse pointer to the next menu item.
- Courier type indicates a command you can enter.
- Courier bold type indicates commands you should enter.
- Helvetica type indicates references to the LME interface windows.
- Helvetica bold type indicates menu entries you should choose from the LME interface; for example, the text “choose **View** \rightarrow **Parameter Set**” indicates you should choose the Parameter Set entry from the  menu button.

Interface Components

Figure 1 shows the LME interface, located in the base window. The paragraphs following the figure describe the components of the interface.

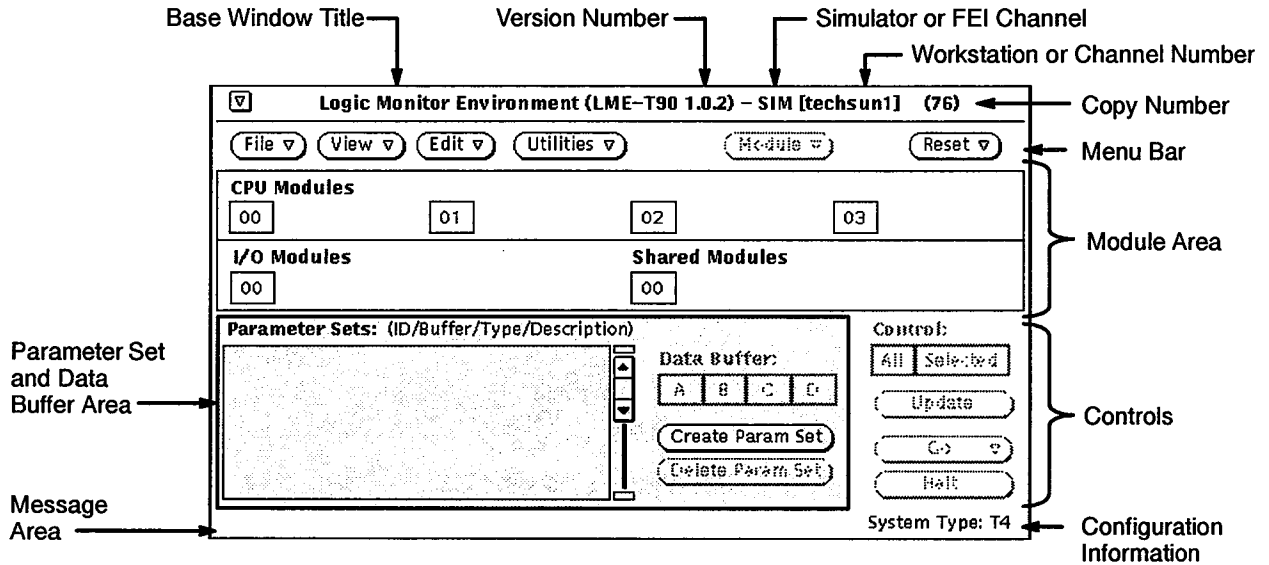


Figure 1. LME Interface Components

Base Window Title

The base window title displays the name of the program: Logic Monitor Environment.

Version Number

The version number indicates the version of LME you are using.

Simulator or FEI Channel

The simulator or front-end interface (FEI) channel indicator shows LME is running with the simulator (indicated by SIM) or an FEI channel (indicated by FEI CHN 0 for channel 0, FEI CHN 1 for channel 1, or FEI CHN 2 for channel 2).

Workstation Name or Channel Number

The workstation or channel number indicator lists the name of the workstation or the channel number on which LME is running.

Copy Number

The copy number indicates the copy of LME you are using. To set the copy number, start LME with the `-copy` option. If you start LME with the default copy number of 0, the LME base window does not display a copy number. For more information about starting LME with the `-copy` option, refer to the *CRAY T90 Series LME User Guide*, publication number HDM-xxx-0.

Menu Bar

The menu bar contains six menu buttons: , , , , , and . Use the commands in these menu buttons to perform LME functions. Refer to "Menu Buttons Commands" later in this document for more information about the menu button commands.

NOTE: The button is only active after you select a module by clicking on an assigned parameter set in the module area.


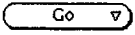

Module Area

The module area is where you assign the parameter sets to modules. To assign the current parameter set and data buffer to a module, click on the module. The parameter set and data buffer appear next to the module.

Controls

The following controls are available for controlling a monitoring session:

<u>Control</u>	<u>Description</u>
<input type="button" value="All"/>	Specifies that the control buttons will affect all modules.
<input type="button" value="Selected"/>	Specifies that the control buttons will affect only the selected modules.

<u>Control</u>	<u>Description</u>
	<p>Updates the parameter set changes without starting a monitoring session. Use this button to update the snapshot display utility parameters and to set external scope points.</p>
	<p>Starts a new monitoring session. Two options are available:</p> <p>The Go → One-shot option starts the monitoring process and reads and displays the logic monitor data only when a trigger occurs. LME displays the one-shot icon (□□) next to all active modules.</p> <p>The Go → Continuous option starts the monitoring process and reads and displays the logic monitor data every half second (provides a continuous display of logic monitor data). LME displays the continuous icon (⌘) next to all active modules.</p>
	<p>Stops the current monitoring session.</p>

Configuration Information

The configuration information indicates the type of hardware available to LME. The System Configuration Environment (SCE) provides this information.

LME displays the following configuration information:

<u>Information</u>	<u>Description</u>
System Type: T1	Tester (1 CPU)
System Type: T4	CRAY T94 mainframe
System Type: T16	CRAY T916 mainframe
System Type: T32	CRAY T932 mainframe

Message Area

The message area displays *****WARNING: MME Environment 0 Running!***** when MME environment 0 is running. This message appears because MME environment 0 can perform logic monitor, loop controller, and master clear maintenance channel functions that disrupt LME.

Do not run MME environment 0 in automatic or manual modes when you are using LME. Do not issue any logic monitor, loop controller, and master clear maintenance channel functions from MME environment 0 compose mode when you are using LME.

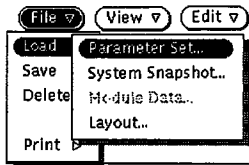
Parameter Set and Data Buffer Selection Area

The parameter set and data buffer area is where you select the parameter set and data buffer you want to assign to a module. There are four data buffers (A, B, C, and D) available for each parameter set. Choose to create a new parameter set in the Parameter Sets scroll box. Click on to delete the current parameter set selected in the Parameter Sets scroll box.

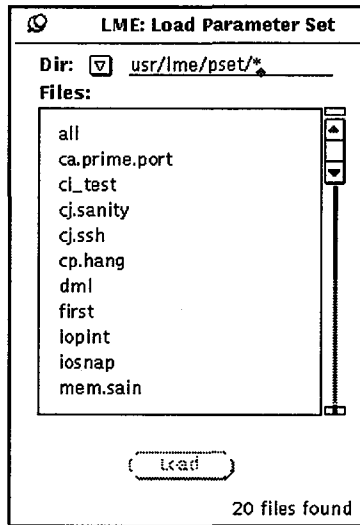
Menu Button Commands

This subsection describes each LME menu button command. Figure 3 on page 33 shows all available menu button commands and lists the pages in this document where the commands are described.

File → Load → Parameter Set



The File → Load → Parameter Set command, as shown at the left, enables you to load a parameter set you previously saved with the File → Save → Parameter Set command. This enables you to reuse parameter sets. This command displays the LME: Load Parameter Set window:



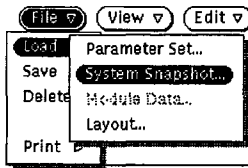
Perform the following procedure to manipulate this window:

1. Change the directory, if necessary, by choosing a directory from the Dir or by entering the directory in the Dir field. The following directories are available in the Dir :

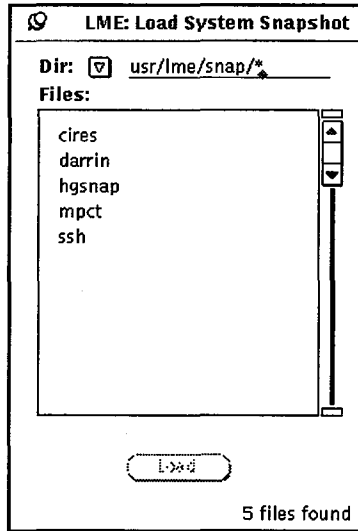
<u>Directory</u>	<u>Description</u>
Release	Files from the current diagnostic release
User	Files you have saved or modified
Alpha	Prereleased files that are being tested and have not been released

2. In the Files scroll box, click on the file you want to load.
3. Click on . LME loads the specified parameter set.

File → Load → System Snapshot



The File → Load → System Snapshot command, as shown at the left, enables you to load a system snapshot you previously saved with the File → Save → System Snapshot command. This enables you to reload all parameter set data, parameter set assignment data, module logic monitor data, and CPU instruction buffer data you were using when you saved the system snapshot. LME displays the LME: Load System Snapshot window:



1. Change the directory, if necessary, by choosing a directory from the Dir or by entering the directory in the Dir field. The following directories are available in the Dir :

<u>Directory</u>	<u>Description</u>
Release	Files from the current diagnostic release
User	Files you have saved or modified
Alpha	Prereleased files that are being tested and have not been released

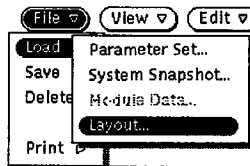
2. In the Files scroll box, click on the file you want to load.
3. Click on . LME loads the specified parameter set.

File → Load → Module Data

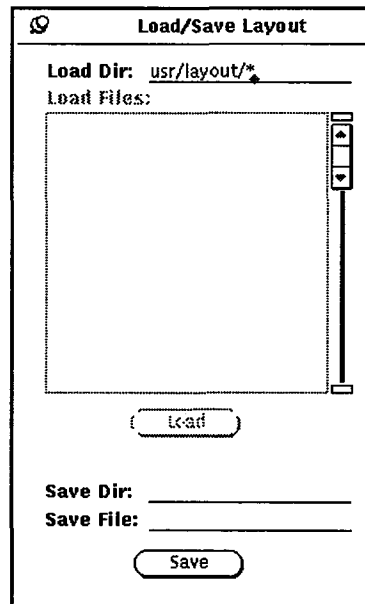
This command is not implemented yet.

NOTE: The File → Load → System Snapshot command also loads module data.

File → Load → Layout



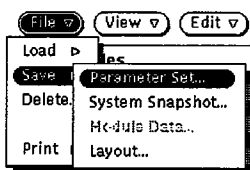
The File → Load → Layout command, as shown at the left, enables you to load a layout previously saved with the File → Save → Layout command. This causes LME to display the same windows in the same locations with the same data types you were using when you used the File → Save → Layout command. This command displays the Load/Save Layout window:



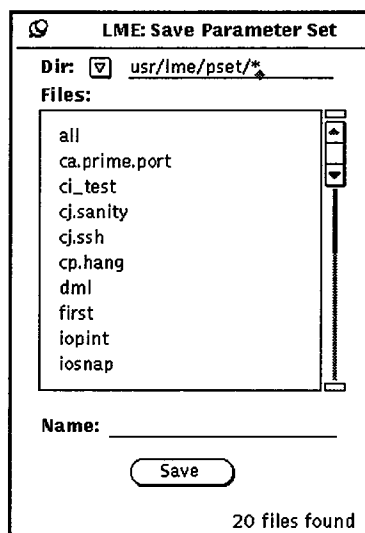
Perform the following procedure to manipulate this window:

1. Change the directory, if necessary, by changing the directory in the Load Dir: field. The Load Dir field defaults to the `usr/lme/layout` directory, which is where layouts are normally saved.
2. In the Files scroll box, click on the file you want to load.
3. Click on . LME loads the specified parameter set.

File → Save → Parameter Set



The File → Save → Parameter Set command, as shown at the left, enables you to save the current parameter set. Then, you can reload the parameter set later with the File → Load → Parameter Set command to reuse the parameter set. This command displays the LME: Save Parameter Set window:



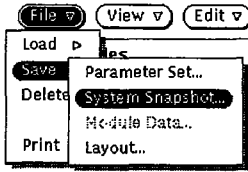
Perform the following procedure to manipulate this window:

1. Change the directory in which LME saves the file, if necessary, by choosing a directory from the Dir or by entering the directory in the Dir field. The following directories are available in the Dir :

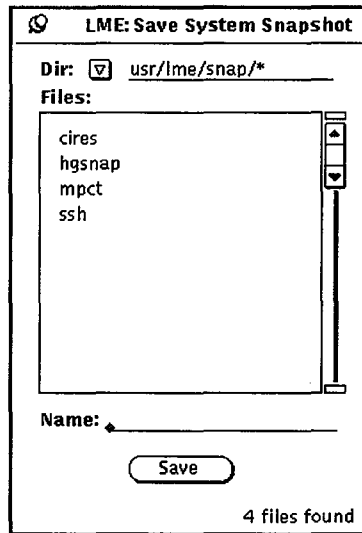
<u>Directory</u>	<u>Description</u>
Release	Files from the current diagnostic release
User	Files you have saved or modified
Alpha	Prereleased files that are being tested and have not been released

2. In the Name field, enter the filename under which you want to save the parameter set.
3. Click on ; LME saves the parameter set in the specified file.

File → Save → System Snapshot



The File → Save → System Snapshot command, as shown at the left, enables you to save a snapshot of all the current LME data, including all parameter set data, parameter set assignment data, module logic monitor data, and CPU instruction buffer data. Then, you can use the File → Load → System Snapshot command to reload the data later and return LME to the state it was at when you saved the system snapshot. This command displays the LME: Save System Snapshot window:



Perform the following procedure to manipulate this window:

1. Change the directory in which LME saves the file, if necessary, by choosing a directory from the Dir or by entering the directory in the Dir field. The following directories are available in the Dir :

<u>Directory</u>	<u>Description</u>
Release	Files from the current diagnostic release
User	Files you have saved or modified
Alpha	Prereleased files that are being tested and have not been released

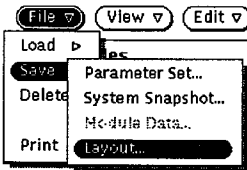
2. In the Name field, enter the filename under which you want to save the system snapshot.
3. Click on ; LME saves the system snapshot in the specified file.

File → Save → Module Data

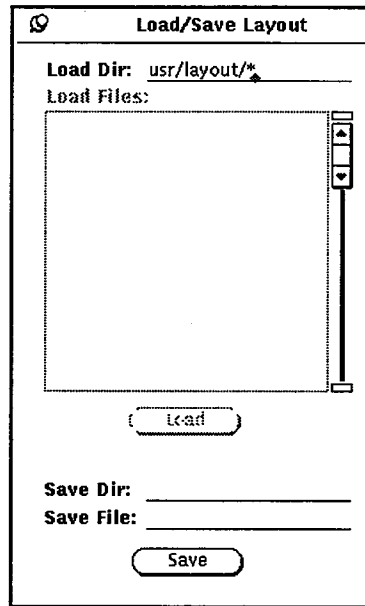
This command is not implemented yet.

NOTE: The File → Save → System Snapshot command also saves module data.

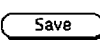
File → Save → Layout



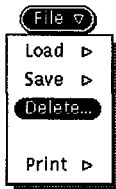
The File → Save → Layout command, as shown at the left, enables you to save the current window layout. Then, you can use the File → Load → Layout command to reload the layout so LME displays the same windows in the same locations with the same data types that were displayed when you saved the layout. This command display the Load/Save Layout window:



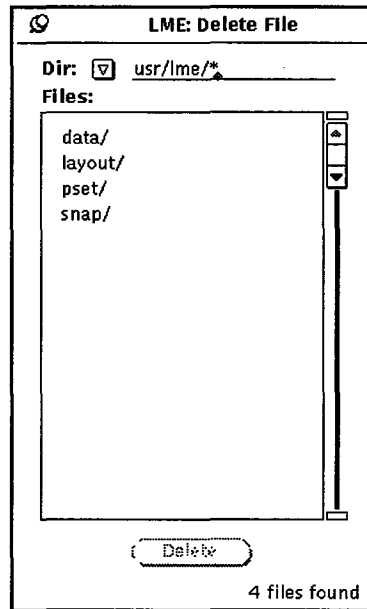
Perform the following procedure to manipulate this window:

1. In the Save Dir field, enter the directory in which you want to save the layout. Usually, you should enter `usr/lme/layout` in this field.
2. In the Save File field, enter the filename under which you want to save the layout.
3. Click on ; LME saves the layout in the specified file.

File → Delete



The File → Delete command, as shown at the left, enables you to delete files you no longer need. This command displays the LME: Delete File window:



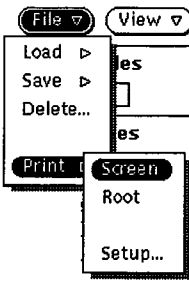
Perform the following procedure to manipulate this window:

1. Change the directory, if necessary, by:
 - Entering the directory in the Dir field and pressing the Return key, or
 - Choosing the directory from the Dir: . The following user directories are available:

<u>Directory</u>	<u>Description</u>
lme/usr/pset/*	User parameter sets
lme/usr/tst/*	User test lists
lme/usr/data/*	User data files

2. Click on the file you want to delete.
3. Click on . LME deletes the file.

File → Print → Screen

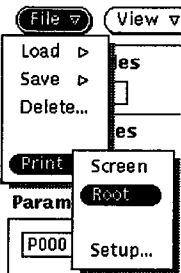


The File → Print → Screen command, as shown at the left, prints an image of a window or an icon.

When you choose this command, the cursor becomes a plus symbol. Move the cursor to the window or icon to print, and click any mouse button.

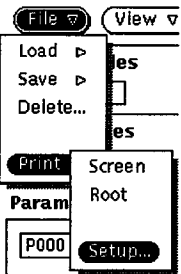
NOTE: This command does not print an image of the LME base window. To print an image of the LME base window, use the File → Print → Root command.

File → Print → Root

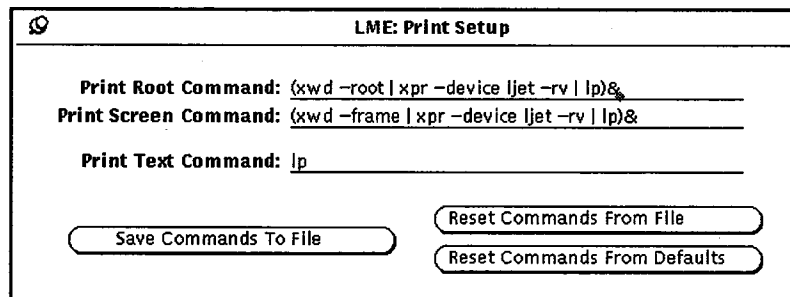


The File → Print → Root command, as shown at the left, prints an image of the entire screen (root window).

File → Print → Setup



The File → Print → Setup command, as shown at the left, enables you to edit the commands that control how LME prints data for the File → Print → Root and File → Print → Screen commands and how LME prints text. This command displays the LME: Print Setup window:



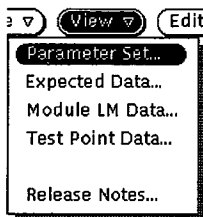
Modify the commands in the Print Root Command, Print Screen Command, and Print Text Command fields to change how LME prints. For more information about the UNIX `xwd`, `xpr`, and `lp` commands used in the print processes, refer to the UNIX online manual (`man`) pages (enter `man xwd`, `man xpr`, or `man lp` at a UNIX command prompt).

NOTE: LME and MME share these print commands. If you change commands in LME, they also change for MME.

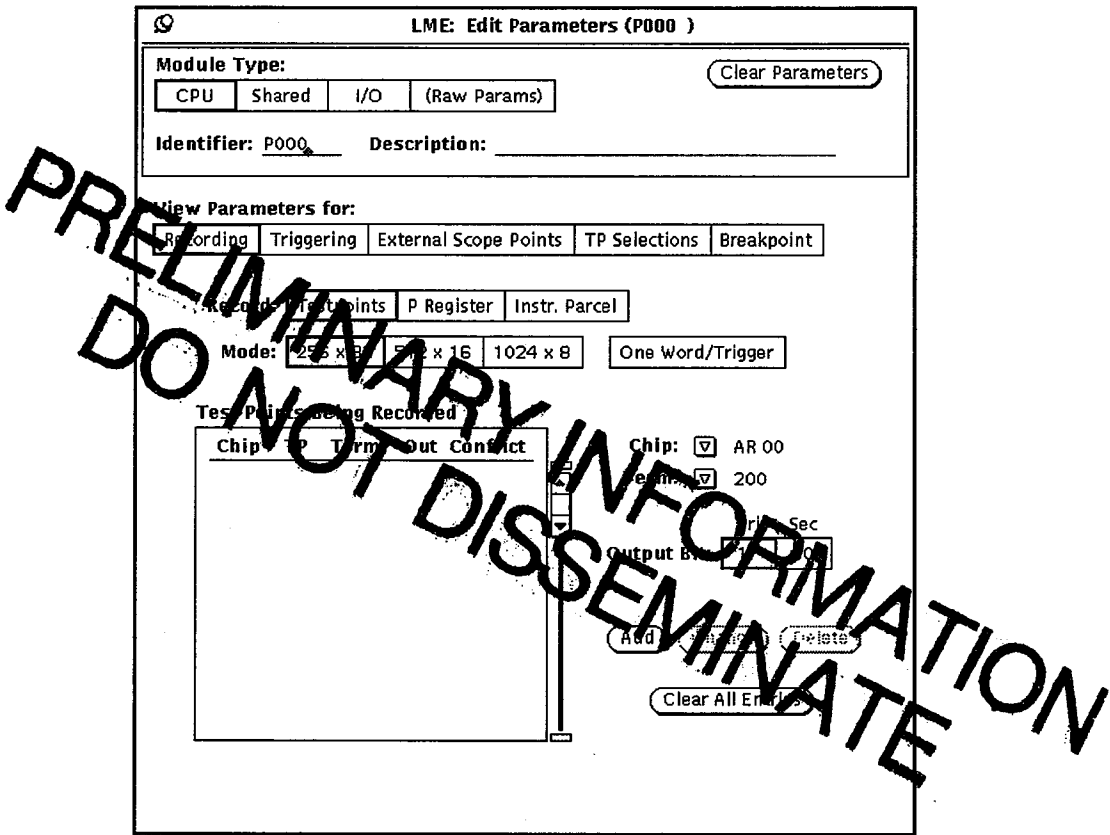
Use the buttons in the LME: Print Setup window to:

- Save the current printer setup commands for later use ().
- Load the printer setup commands you saved previously ().
- Load the default printer setup commands that the LME program provides ().

View → Parameter Set



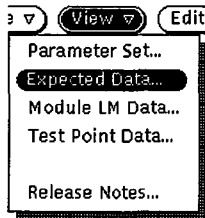
The View → Parameter Set command, as shown at the left, displays the current parameter set data. Use this command to view and edit a parameter set. This command displays the LME: Edit Parameters window:



Refer to the “Create the Parameter Sets” discussion in the *CRAY T90 Series LME User Guide*, publication number HDM-xxx-0, for more information about how to use this window to edit a parameter set.

NOTE: You can also view a parameter set by double-clicking on the parameter set in the Parameter Sets scroll box in the LME base window.

View → Expected Data



The View → Expected Data command, as shown at the left, displays the expected data for the current parameter set. LME uses the expected data to make comparisons with the actual data returned from a monitoring session. Use this command to view and edit the expected data and the compare mask that LME uses to compare the expected and actual data. This command displays the LME: Exp. Data window:

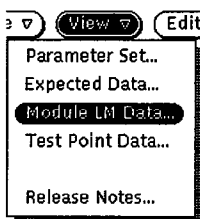
LME: Exp. Data			
Compare Mask:			
377 377 377 377			
Addr	-HMO-	-HM1-	
000	000	000	000-001
001	000	002	000 003
002	000	004	000-005
003	000	006	000 007
004	000	010	000 011
005	000	012	000 013
006	000	014	000 015
007	000	016	000 017
010	000	020	000-021
011	000	022	000 023
012	000	024	000 025
013	000	026	000 027
014	000	030	000 031
015	000	032	000 033
016	000	034	000 035
017	000	036	000 037

LME formats the LME: Exp. Data window to correspond with the parameter set's recording mode.

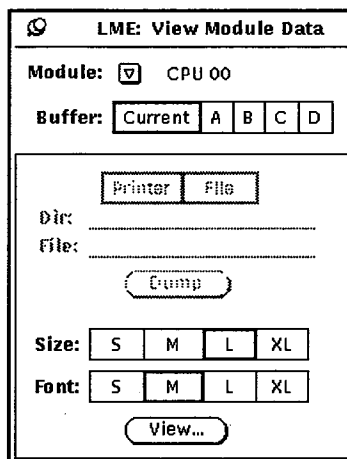
To change the compare mask, enter a new value in the Compare Mask field and press Return.

To change expected data, click the SELECT mouse button on the data you want to change. Then, enter any combination of octal digits and press return.

View → Module LM Data

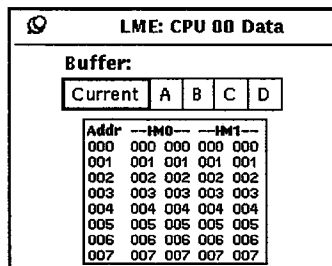


The View → Module LM Data command, as shown at the left, enables you to view the LM data returned from a monitoring session in a separate window. This command displays the LME: View Module Data window:

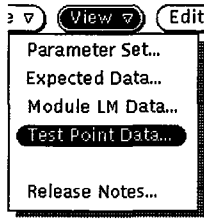


Perform the following procedure to manipulate this window:

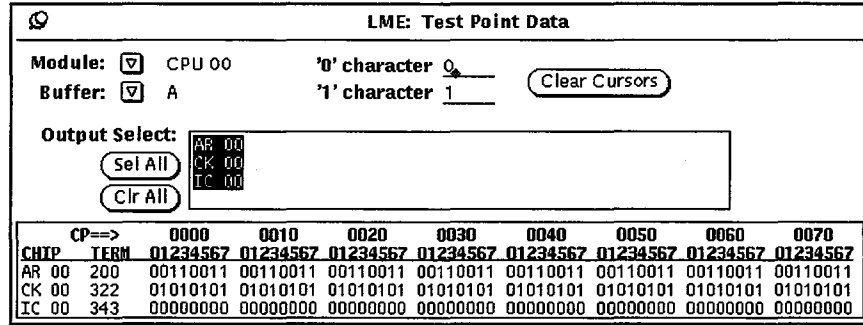
1. From the Module: , choose the module for which you want to view the LM data.
2. Click on Buffer: Current, A, B, C, or D to select which buffer of LM data you want to view.
3. Click on Size: S, M, L, or XL to specify the size of the window to display.
4. Click on Font: S, M, L, or XL to specify the font size of the data LME displays.
5. Click on ; LME displays the LM data for the selected module in a separate window:



View → Test Point Data



The View → Test Point Data command, as shown at the left, displays the test-point data returned from a monitoring session. This command displays the LME: Test Point Data window:



This window displays the recorded values for the chips on which you recorded test points. Select the module and data buffer you want to view from the corresponding menus. You can select which chips you want to view by clicking on the chips in the Output Select box. Click on (Sel All) to select all the chips on which you recorded test points. Click on (Clr All) to deselect all the chips.

To increase readability, you may want to change the characters used to indicate the 0 and 1 states of the test points. Enter the new characters in the appropriate fields. You can also highlight the rows and columns of data to increase readability of the table, as shown in Figure 2. Click the SELECT mouse button to highlight a row of data. Click the EXTEND mouse button to highlight a column of data. Click on (Clear Cursors) to clear these cursors. Press the MENU button to access a menu that enables you to change the type font size.

NOTE: If a dash appears in the last data position, this indicates that the hardware delayed 1 clock period before recording the test-point data for the chip. The test-point data is shifted one position to correspond with the data from the other test points.

If you click in the data area, you can navigate the test-point dump data by using the keyboard. Use the left arrow key to move the data to the left. Use the right arrow key to move the data to the right. Use the Home key to move to the beginning of the data. Use the End key to move to the end of the data.

LME: Test Point Data

Module: CPU 00 '0' character 0
 Buffer: A '1' character 1

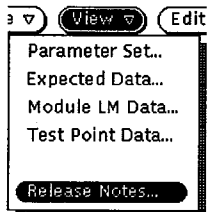
Output Select:

 AR 00
 CK 00
 IC 00

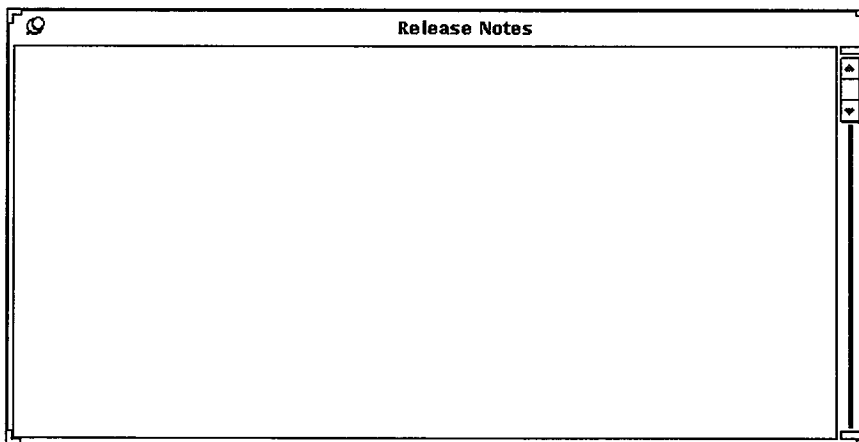
CP==>	0000	0010	0020	0030	0040	0050	0060	0070
CHTP TERM	01234567	01234567	01234567	01234567	01234567	01234567	01234567	01234567
AR 00 200	00110011	00110011	00110011	00110011	00110011	00110011	00110011	00110011
CK 00 322	01010101	01010101	01010101	01010101	01010101	01010101	01010101	01010101
IC 00 343	00000000	00000000	00000000	00000000	00000000	00000000	00000000	00000000

Figure 2. Highlighted Rows and Columns in the Test-Point Data

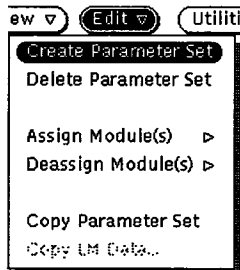
View -> Release Notes



The View -> Release Notes command, as shown at the left, displays the LME release notes in a separate window. Use this window to read about any changes to LME for the current offline diagnostic release. This command displays the Release Notes window:

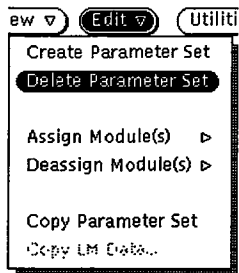


Edit -> Create Parameter Set



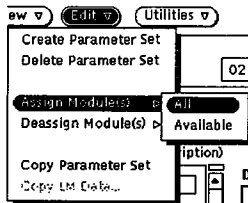
The Edit -> Create Parameter Set command, as shown at the left, creates a new parameter set in the Parameter Sets scroll box.

Edit → Delete Parameter Set



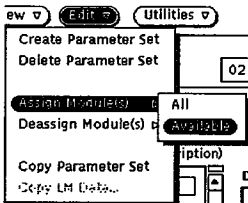
The Edit → Delete Parameter Set command, as shown at the left, deletes the selected parameter set.

Edit → Assign Module(s) → All



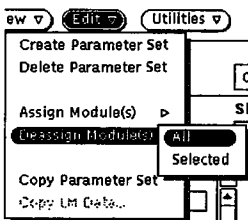
The Edit → Assign Module(s) → All command, as shown at the left, assigns the selected parameter set to all modules.

Edit → Assign Module(s) → Available



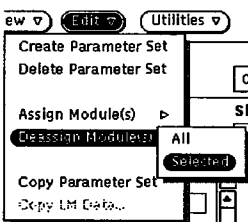
The Edit → Assign Module(s) → Available command, as shown at the left, assigns the selected parameter set to any modules that are not already assigned parameter sets.

Edit → Deassign Module(s) → All

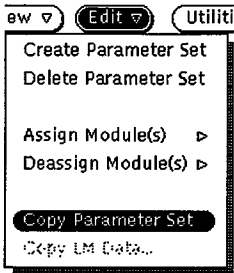


The Edit → Deassign Module(s) → All command, as shown at the left, deassigns the parameter sets from all modules.

Edit → Deassign Module(s) → Selected



The Edit → Deassign Module(s) → Selected command, as shown at the left, deassigns the parameter sets assigned to the modules you have selected.

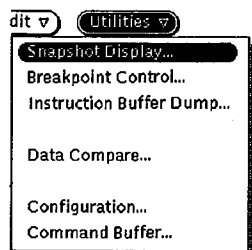
Edit → Copy Parameter Set

The Edit → Copy Parameter Set command, as shown at the left, makes a copy of the selected parameter set and places the copy in the Parameter Sets scroll box.

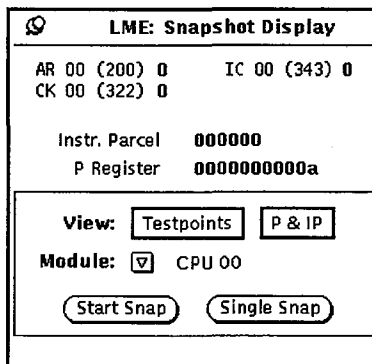
Edit → Copy LM Data

This command is not implemented yet.

Utilities → Snapshot Display



The Utilities → Snapshot Display command, as shown at the left, displays the snapshot display utility. The snapshot display utility enables you to quickly see the values of the test points, the instruction parcel, and the P register. You can take one snapshot to see the current values, or you can take a continuous snapshot to watch the values change. This command displays the LME: Snapshot Display window:

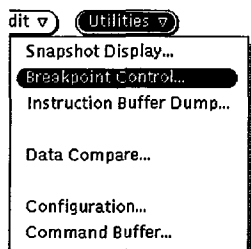


From the Module: , choose the module for which you want a snapshot. For a CPU, you can specify that you want to view the test points, the P register, and the instruction parcel. For shared and IO modules, the window displays the test points. The snapshot display utility uses the parameter set assigned to the selected module to specify which test points should be captured and displayed.

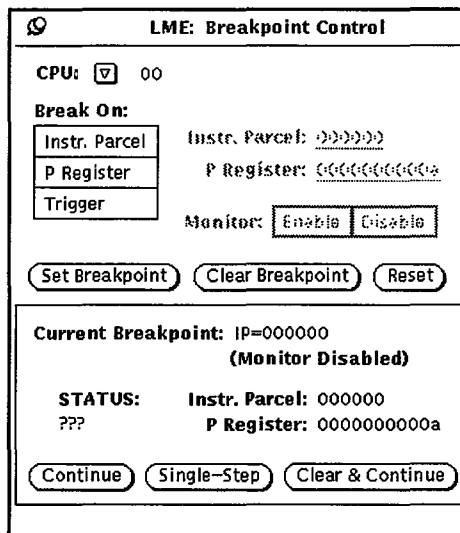
Click on to start a continuous snapshot; the button changes to , which you can click on to stop a continuous snapshot. Click on to take one snapshot of the current values.


NOTE: If you want to change the parameters used by the snapshot display utility, change the parameter set for the module and click on .

Utilities → Breakpoint Control


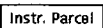


The Utilities → Breakpoint Control command, as shown at the left, displays the breakpoint control utility. The breakpoint control utility enables you to stop CPU execution when a specific current instruction parcel value, P register value, or trigger occurs. This utility displays the instruction parcel and P register values when the breakpoint occurs. This command displays the LME: Breakpoint Control window:



NOTE: The breakpoint monitor function, Monitor settings, and  icon were included in the Systems Test and Checkout (STCO) version of LME to handle breakpoint functionality problems for early CP modules. These problems will be corrected in future modules shipping to the field, so the field version of LME will automatically handle breakpoint monitoring; therefore, these options are not described in the following procedure.

Perform the following procedure to set a breakpoint:

1. From the CPU: , choose the CPU for which you want to set the breakpoint.
2. Set the condition on which you want the CPU to stop:
 - Click on Break On:  to stop execution on a specific current instruction parcel value; enter the value in the Instr. Parcel field.

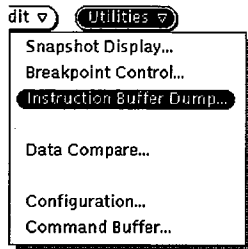
- Click on Break On: to stop execution on a specific P register value; enter the value in the P Register field.
 - Click on Break On: to stop execution when the triggers occur. The parameter set assigned to the CPU defines the triggering conditions.
3. Click on to set the breakpoint for the selected CPU. The Current Breakpoint information displays the breakpoint you have set for the CPU. LME displays a hollow stop sign icon (○) next to a CPU to indicate that a breakpoint is set for the CPU.

You can click on to clear a breakpoint you have set for a CPU. You can click on to reset the information in the LME: Breakpoint Control window.

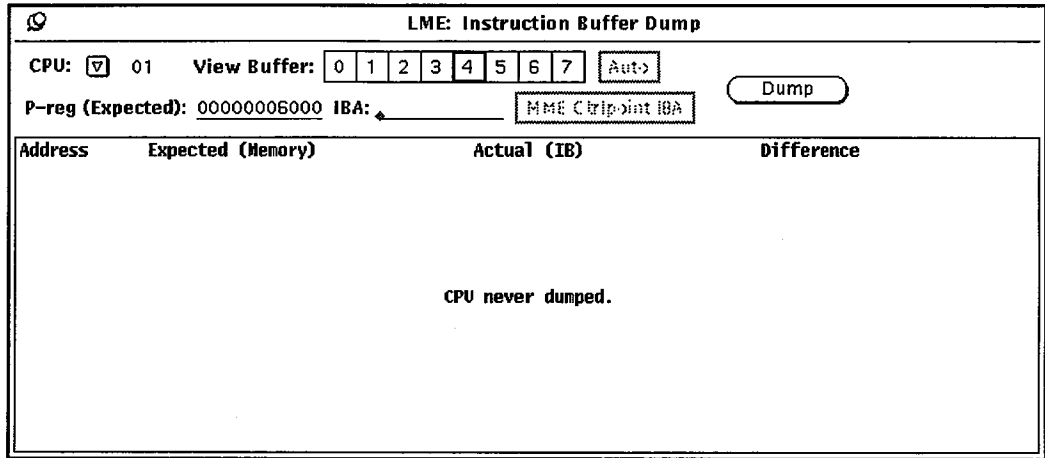
When a breakpoint occurs, CPU execution stops, and the LME: Breakpoint Control window displays the current instruction parcel and P register values. The STATUS information displays BREAK, and LME changes the hollow stop sign icon to a filled stop sign icon (⊛) to indicate that a breakpoint has occurred.

Click on to continue CPU execution and leave the breakpoint set. Click on to have the CPU execute the next instruction. Click on to clear the current breakpoint and continue CPU execution.

Utilities → Instruction Buffer Dump



The Utilities → Instruction Buffer Dump command, as shown at the left, displays the instruction buffer dump utility. The instruction buffer dump utility extracts the instruction buffers from mainframe memory and displays their contents. This command displays the LME: Instruction Buffer Dump window:



Perform the following procedure to use the instruction buffer dump utility:

1. From the CPU: 01, choose the CPU for which you want to dump the instruction buffers.
2. In the P-reg (Expected) field, enter the address of the data with which you want to compare the instruction buffer data.
3. In the IBA: field, enter the base value to use for relative addressing.
4. Click on to dump the instruction buffers for the selected CPU.
5. Click on the View Buffer setting for the instruction buffer you want to view.

NOTE: You can change the window size and font size by pressing the MENU mouse button in this window:

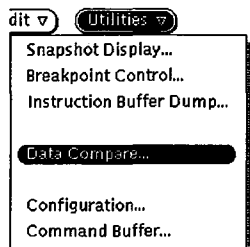
LME: Instruction Buffer Dump

CPU: 03 View Buffer: 0 1 2 3 4 5 6 7

P-reg (Expected): 00000006000 IBA:

Address	Expected (Memory)	Actual (IB)	Difference
00000006000	000000 000000 000000 000000	00 000000 000000 000000 000000	000000 000000 000000 000000
00000006001	000000 000000 000000 000000	01 000000 000000 000000 000000	000000 000000 000000 000000
00000006002	000000 000000 000000 000000	02 000000 000000 000000 000000	000000 000000 000000 000000
00000006003	000000 000000 000000 000000	03 000000 000000 000000 000000	000000 000000 000000 000000
00000006004	000000 000000 000000 000000	04 000000 000000 000000 000000	000000 000000 000000 000000
00000006005	000000 000000 000000 000000	05 000000 000000 000000 000000	000000 000000 000000 000000
00000006006	000000 000000 000000 000000	000000 000000 000000 000000	000000 000000 000000 000000
00000006007	000000 000000 000000 000000	000000 000000 000000 000000	000000 000000 000000 000000
00000006010	000000 000000 000000 000000	000000 000000 000000 000000	000000 000000 000000 000000
00000006011	000000 000000 000000 000000	000000 000000 000000 000000	000000 000000 000000 000000
00000006012	000000 000000 000000 000000	12 000000 000000 000000 000000	000000 000000 000000 000000
00000006013	000000 000000 000000 000000	13 000000 000000 000000 000000	000000 000000 000000 000000
00000006014	000000 000000 000000 000000	14 000000 000000 000000 000000	000000 000000 000000 000000
00000006015	000000 000000 000000 000000	15 000000 000000 000000 000000	000000 000000 000000 000000
00000006016	000000 000000 000000 000000	16 000000 000000 000000 000000	000000 000000 000000 000000
00000006017	000000 000000 000000 000000	17 000000 000000 000000 000000	000000 000000 000000 000000

Utilities → Data Compare



The Utilities → Data Compare command, as shown at the left, compares data from monitoring sessions and parameter set data. This enables you to compare results from different monitoring sessions or compare the parameter sets used to generate the data. This command displays the LME: Compare LM Data window:

LME: Compare LM Data

EXPECTED:
Module: CPU 00 **Buffer:** A

ACTUAL:
Module: CPU 00 **Buffer:** B

Compare Mask: 177777 177777

Addr	Expected				Actual				Difference			
	--HMO--	--HM1--	--HMO--	--HM1--	--HMO--	--HM1--	--HMO--	--HM1--	--HMO--	--HM1--	--HMO--	--HM1--
00000	000	000	000	000	200	200	200	200	200	200	200	200
00001	001	001	001	001	201	201	201	201	200	200	200	200
00002	002	002	002	002	202	202	202	202	200	200	200	200
00003	003	003	003	003	203	203	203	203	200	200	200	200
00004	004	004	004	004	204	204	204	204	200	200	200	200
00005	005	005	005	005	205	205	205	205	200	200	200	200
00006	006	006	006	006	206	206	206	206	200	200	200	200
00007	007	007	007	007	207	207	207	207	200	200	200	200
00010	010	010	010	010	210	210	210	210	200	200	200	200
00011	011	011	011	011	211	211	211	211	200	200	200	200
00012	012	012	012	012	212	212	212	212	200	200	200	200
00013	013	013	013	013	213	213	213	213	200	200	200	200
00014	014	014	014	014	214	214	214	214	200	200	200	200
00015	015	015	015	015	215	215	215	215	200	200	200	200
00016	016	016	016	016	216	216	216	216	200	200	200	200
00017	017	017	017	017	217	217	217	217	200	200	200	200

Perform the following procedure to manipulate this window:

1. Specify the expected data by performing one of the following options:
 - Click on **EXPECTED:** to select a logic monitor data buffer for a module. From the **Module:** , choose the module you want to use. From the **Buffer:** , choose the LM data buffer you want to use.
 - Click on **EXPECTED:** to select a parameter set. From the **Param Set:** , choose the parameter set you want to use.

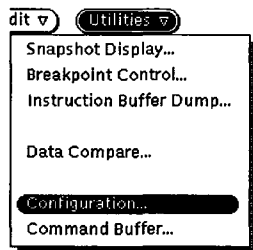
2. Specify the actual data by performing one of the following options:

- Click on ACTUAL: to select a logic monitor data buffer for a module. From the Module: - Click on ACTUAL: to select a parameter set. From the Param Set:

3. Enter a mask value in the Compare Mask field to indicate which bit positions you want to compare in order to generate difference values (0₂ = compare bit position; 1₂ = do not compare bit position).

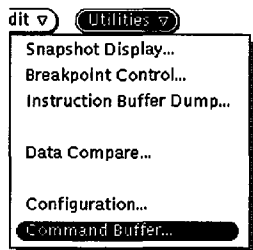
LME displays the expected, actual, and difference data. You can click on to view only the data that contains differences between the actual and expected data.

Utilities → Configuration



The Utilities → Configuration command, as shown at the left, displays the System Configuration Environment (SCE), which you use to configure the mainframe. For more information about SCE, refer to the *System Configuration Environment* document, publication number HDM-xxx-0.

Utilities → Command Buffer



The Utilities → Command Buffer command, as shown at the left, starts the Command Buffer Parser (CBP) with the CRAY T90 series CBP runtime module. For more information about the CRAY T90 series CBP runtime module, refer to the *CRAY T90 Series CBP Runtime Module* document, publication number HDM-xxx-0.

Module → View Data Buffers



The Module → View Data Buffers command, as shown at the left, enables you to view the logic monitor data buffers for the selected module. These buffers contain the results from monitoring sessions. You can view the data stored in the current buffer or any of the four available buffers (A, B, C, and D). This command displays a data window:

LME: CPU 00 Data					
Buffer:					
	Current	A	B	C	D
Addr	--HMO--		--HM1--		
000	000	000	000	000	
001	001	001	001	001	
002	002	002	002	002	
003	003	003	003	003	
004	004	004	004	004	
005	005	005	005	005	
006	006	006	006	006	
007	007	007	007	007	
010	010	010	010	010	
011	011	011	011	011	
012	012	012	012	012	
013	013	013	013	013	
014	014	014	014	014	
015	015	015	015	015	
016	016	016	016	016	
017	017	017	017	017	

You can view a different data buffer by clicking on the corresponding Buffer setting.

NOTE: The **Module** button is only active after you click on an assigned parameter set in the module area.

Module → Copy Current Buffer to Expected



The Module → Copy Current Buffer to Expected command, as shown at the left, copies the current buffer of logic monitor data to the expected data buffer for the parameter set assigned to the selected module. Use this command to use the results of one monitoring session as the expected data for another monitoring session.

NOTE: The **Module** button is only active after you click on an assigned parameter set in the module area.

Reset → Channel



The Reset → Channel command, as shown at the left, resets the FY driver.

Reset → Server



The Reset → Server command, as shown at the left, resets the LME server. This stops any active monitoring sessions.

Reset → Configuration



The Reset → Configuration command, as shown at the left, causes SCE to reapply the configuration.

NOTE: This command does not work if any partitions have an OS owner. For more information about partition ownership, refer to the *System Configuration Environment* document, publication number HDM-xxx-0

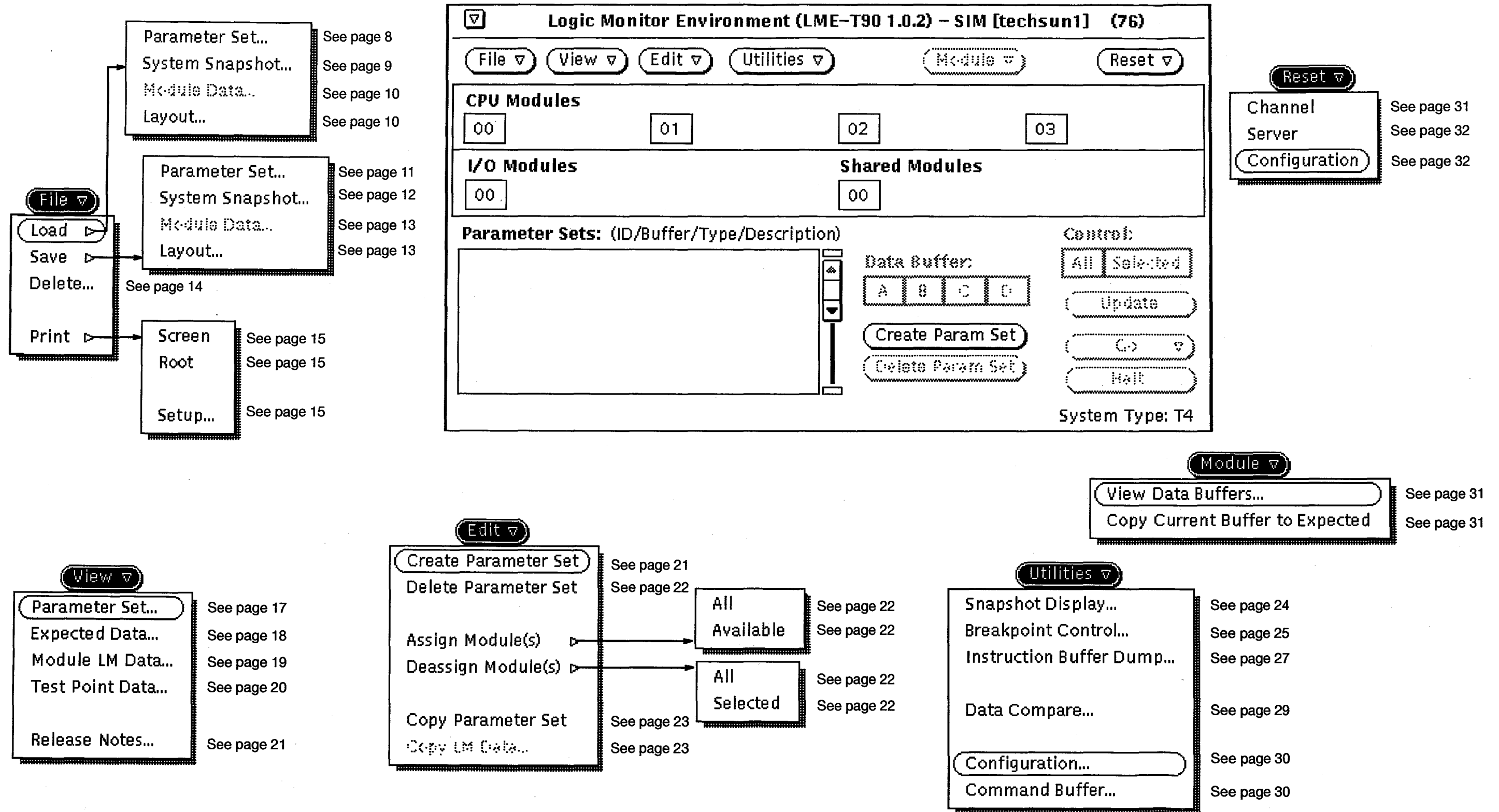


Figure 3. Menu Quick Reference

Reader Comment Form

Title: CRAY T90™ Series LME
Interface Reference
Preliminary Information

Number: HDM-xxx-0
December 1994

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